

APPENDIX B

PROGRAMMATIC SECTION 4(f) EVALUATION

**Programmatic Section 4(f) for the Use of Minor Amounts of Land from Public Parks,
Recreation Lands, and Wildlife and Waterfowl Refuges**

**Alaska Department of Transportation and Public Facilities
May 19, 2004**

DRAFT

Project Name: Taylor Highway Milepost 64.5 to the Alaska/Canada Border

Project Number: STP-0785(11)/66446

The Federal Highway Administration (FHWA) agreed on February 3, 2004 that Section 4(f) applies to the project and that the project is designed to improve the operational characteristics, safety, and/or physical condition of the existing facilities on essentially the same alignment. The proposed project would rehabilitate the Taylor Highway from milepost (MP) 64.5 to the Alaska/Canadian Border. The entire project is approximately 44 miles long. The proposed project does not require the preparation of an Environmental Impact Statement.

Project Description

The Alaska Department of Transportation and Public Facilities (ADOT&PF), in conjunction with FHWA, is proposing to improve the Taylor Highway from MP 64.5 to the Alaska/Canada Border (Figure 1). The scope of the project consists of rehabilitation, restoration, and resurfacing of the existing roadway on the same or slightly modified alignment.

The proposed project would 1) resurface, restore, and rehabilitate the existing highway from the Mosquito Fork Bridge to the Alaska/Canada border; 2) replace the existing one lane bridge over Chicken Creek with a single span, two lane bridge; 3) provide enhancements for recreation; and 4) provide reliable access to the Wade Creek Recreational Area.

The present highway alignment would be maintained except for minor realignments to reduce curvature on corners and shifting the highway away from the Wade Creek floodplain. The highway would be realigned at multiple locations for a total of approximately 3.5 miles (Figures 3-12). The proposed highway realignments at corners average 0 to 50 feet from the existing highway centerline. Along Wade Creek, the maximum shift is 100 feet from the current centerline. The road would be improved by widening to 28 feet with two 10-foot lanes and 4-foot shoulders, and surfacing with asphalt (Figure 13). Drainage would be improved to convey water away from the road by ditching parallel to the road and

installing cross-drainage under the road. The posted speed would be 40 miles per hour from MP 64.5 to Walker Fork (MP 82) and 50 miles per hour from Walker Fork to the Alaska/Canada border.

A wayside would be constructed at Walker Fork and located on the southeast side of the road with outhouses, interpretive signing, and picnic tables, as indicated on Figures 3 and 14. Scenic turnouts are planned where the new road will accommodate using the old road for turnouts at MP 77 on the east side of the road and MP 78 on the northwest side of the road (Figure 15). A trailhead parking area is planned for the Mosquito Fork Dredge Hiking Trail (MP 68) on the south side of the highway within ADOT&PF right-of-way. The parking area will have no facilities and will not impact the current trailhead. Highway signing will also be installed along the entire project corridor, including milepost markers and standard highway signs for direction and safety information.

The current one lane bridge over Chicken Creek will be replaced by a two-lane, single span bridge. The new bridge location will be the same as the current bridge. A temporary crossing will be installed during construction of the new bridge and removed when the new bridge is operational. Bridge approach railing and bridge deck railing will be installed on the South Fork and Walker Fork bridges. In addition, the South Fork Bridge piers require work to repair concrete spalling. The pier work will require the use of partial wooden coffer dams which will be pumped out to allow workers to fix the piers. No heavy equipment will be used in the river.

Material for road construction will be obtained from road cuts/unclassified excavation, tailings from Wade Creek and two permitted material sites (Figures 15 and 16). Any additional material from excavations will be used as slope flattening material in non-wetland areas within the ADOT&PF ROW. Material disposal sites will be identified by ADOT&PF during the final design or by the construction contractor.

Additional ROW easements proposed by ADOT&PF in the Wade Creek Wild and Scenic River Withdrawal would be required at ten locations for a total area of 3.6 acres (Figures 3-12). Temporary construction access would be required on 1.43 acres in the Withdrawal to construct the Walker Fork Wayside. BLM would maintain the wayside after construction. Table 1 provides a summary of each proposed Section 4(f) impact. A detailed description of each site is provided following Table 1.

**Table 1
Proposed Section 4(f) Land Impacts**

Letter Designation ^a	Location (MP)	Additional ROW (acres)	Type of Section 4(f) Impact	Reason for Section 4(f) take
A	83.2	0.23	Acquire ROW Easement	Centerline of road will be moved up to 67 feet to the west to avoid a bend in Wade Creek that washes out the existing road.
B	83.7	0.11	Acquire ROW Easement	Centerline of road will be moved up to 63 feet to the west to avoid the road being washed out by Wade Creek.
C	84.2	0.41	Acquire ROW Easement	Centerline of road will be moved up to 102 feet to the southwest to avoid a bend in Wade Creek that washes out the existing road.
D	85.4	0.17	Acquire ROW Easement	Centerline of road will be moved up to 66 feet to the west to avoid the road being washed out by Wade Creek.
E	86.2	0.20	Acquire ROW Easement	The road will be widened to the inside of the curve to avoid filling into Wade Creek on the south side. Cut catch point on steep hillside on north side occurs outside of the ROW limit. The centerline of the road will be moved up to six feet to the north.
F	86.7	1.73	Acquire ROW Easement	The road will be widened to the outside of the curve to avoid filling into Wade Creek on the east side. Cut catch point on steep hillside on west side occurs outside of the ROW limit. The centerline of the road would be moved up to 17 feet to the east.
G	86.9	0.43	Acquire ROW Easement	Centerline of road will be moved 36 feet to the north to pull roadway away from erosion area caused by Wade Creek.
H	87.8	0.09	Acquire ROW Easement	Centerline of road will be moved a maximum of 81 feet to the north to pull roadway away from erosion area caused by Wade Creek.
I	89.1	0.11	Acquire ROW Easement	Centerline of road will be moved a maximum of 81 feet to the north to pull roadway away from erosion area caused by Wade Creek and create a larger radius curve.
J	91	0.12	Acquire ROW Easement	Centerline of road will be moved 19 feet to the southeast to pull roadway away from erosion area caused by Wade Creek and create a larger radius curve.
Total		3.6		
Walker Fork Wayside	82.1	1.43	Temporary Construction Access	Construction of a wayside at Walker Fork on the southeast side of the road. BLM will own and maintain the wayside after construction.

^a Letter designation corresponds to the site identifier on Figures 3 through 12.
MP -- Milepost

Area A - This section of highway is directly adjacent to the active channel of Wade Creek (Figure 4). Wade Creek is adjacent to the east side of the road where it often erodes and sometimes completely washes out this section of highway. To reduce these erosion problems, ADOT&PF proposes to realign the centerline a maximum of 67 feet to the west in this area. Shifting the centerline away from Wade Creek requires an additional 0.23 acre of ROW on the west side of the existing road alignment. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

Area B - This section of highway is directly adjacent to the active channel of Wade Creek (Figure 4). Wade Creek is adjacent to the east side of the road where it often erodes and sometimes completely washes out this section of highway. To reduce these erosion problems, ADOT&PF proposes to realign the centerline a maximum of 63 feet to the west in this area. Shifting the centerline away from Wade Creek requires an additional 0.11 acre of ROW on the west side of the existing road alignment. The old road embankment material would be removed in its entirety to prevent erosion of this material into Wade Creek.

Area C - This section of highway is directly adjacent to the active channel of Wade Creek (Figure 5). Wade Creek is adjacent to the east side of the road where it often erodes and sometimes completely washes out this section of highway. To reduce these erosion problems, ADOT&PF proposes to realign the centerline a maximum of 102 feet to the west in this area. Shifting the centerline away from Wade Creek requires an additional 0.41 acre of ROW on the west side of the existing road alignment. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

Area D - This section of highway is directly adjacent to the active channel of Wade Creek (Figure 6). Wade Creek is adjacent to the east side of the road where it often erodes and sometimes completely washes out this section of highway. To reduce these erosion problems, ADOT&PF proposes to realign the centerline a maximum of 66 feet to the west and eliminate the curve in the road in this area. Shifting the centerline away from Wade Creek requires an additional 0.17 acre of ROW on the west side of the existing road alignment due to the catch slope extending outside of the current ROW. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

Area E - This section of road is cut into a high, steep hillside adjacent to Wade Creek (Figure 6). In order to widen the road at this location fill would have to be placed in the active channel of

Wade Creek or the hillside would need to be excavated. The preferred option, requested by BLM, would require excavation of the hillside so that Wade Creek is not impacted. The centerline of the road would be moved up to six feet to the north, which would force the excavation limits to extend outside of the current ROW. An additional 0.20 acre of ROW would be required. The existing road embankment material will be incorporated into the new road.

Area F – This section of the road is bound by Wade Creek on the east and a steep hillside on the west. Road base fill from the highway currently extends into Wade Creek and is often subject to erosion because it is located on an outside bend of the creek (Figure 7). ADOT&PF is proposing to move the road away from the creek to reduce future erosion. The centerline of the road would be moved up to 17 feet to the east which would force the excavation limits to extend outside the current ROW. An additional 1.73 acres of ROW would be required. The existing road embankment material will be incorporated into the new road.

Area G - This section of the road is bound by Wade Creek on the east and a steep hillside on the west. Road base fill from the highway currently extends down a steep hillside adjacent to Wade Creek. The centerline of the road would be moved up to 36 feet to the east eliminating the curve and thereby moving the road away from Wade Creek (Figure 7). By moving the road away from Wade Creek the hillside would need to be excavated to accommodate the new alignment. Excavation of the hillside would require an additional 0.43 acre of ROW. The existing road embankment material will be incorporated into the new road.

Area H – This section of highway is directly adjacent to the active channel of Wade Creek and road base fill extends into Wade Creek (Figure 8). The curves are proposed to be straightened and the road moved up to 81 feet away from Wade Creek to avoid future erosion of the road. The relocation away from Wade Creek will extend the ditch excavation on the northwest side of the road beyond the current ROW, requiring an additional 0.09 acre of ROW. It is not possible to design the road to meet standards and stay within the current ROW because the short distance between the two substandard curves does not allow an adequate transition zone between curves. Eliminating the curves greatly reduces the potential for erosion of the roadway and enhances the roadway geometry. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

Area I – This section of highway is directly adjacent to the active channel of Wade Creek on the southeast and is bound by a steep hillside on the northwest (Figure 9). Wade Creek often erodes

this section of highway. To reduce erosion problems, ADOT&PF proposes to realign the centerline a maximum of 81 feet to the northwest. To realign the road, additional ROW of 0.11 acre would be required on the northwest side of the existing alignment. The additional ROW is required because the limits of excavation on the inside of the curve would extend outside of the existing ROW. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

Area J – This section of road is bound by Wade Creek on the west and a steep hillside on the east (Figure 11). The existing roadway fill extends into the active channel of Wade Creek and is frequently eroded by the creek. To prevent future erosion the road is being moved away from Wade Creek. The centerline is proposed to be moved a maximum of 19 feet to the east. Moving the road to the east requires the addition of 0.12 acre of ROW. The existing road embankment material will be incorporated into the new road.

Section 4(f) Property

The proposed project would involve one park property, the Fortymile Wild and Scenic River (W&SR) – Wade Creek Recreational Withdrawal which is managed by the Bureau of Land Management (BLM).

Within the Wade Creek Recreational area, the Taylor Highway is a narrow, windy, gravel road with many steep hills and some hairpin curves. In the Wade Creek valley, the road is bound by Wade Creek on the southeast and steep hillsides to the northwest (Attachment B, Photo 1). After the road climbs out of the Wade Creek drainage the topography changes dramatically and the road traverses along the tops of tundra and shrub covered rolling hills offering spectacular scenic vistas.

The Wade Creek area is rich in mining history with remnants of mining equipment scattered through out the area. Visitors to the area have the opportunity to see historic mining camps, dredges, and various other mining equipment that has been abandoned over the years

Ownership: Department of the Interior, Bureau of Land Management

Size: The entire Fortymile W&SR corridor is approximately 392 miles long and encompasses approximately 250,000 acres. The Taylor Highway traverses the Fortymile W&SR corridor for 16.5 miles. Under the Fortymile W&SR Management Plan, only the Wade Creek Wild and Scenic River Withdrawal is officially-designated as a segment of publicly-owned “recreational”

land (DOI, 1983). The Wade Creek Withdrawal is included in the proposed project area for 10.5 miles from MP 82 to MP 92 (Figure 2). The Withdrawal is approximately 3,302 acres.

Type: Wild and Scenic River System – Recreational Segment. The Fortymile W&SR was designated as a component of the National W&SR by the Alaska National Interest Land Conservation Act (ANILCA, P.L. 96-487) of 1980. The Wade Creek segment is the only part of the Fortymile W&SR system designated as ‘recreational’.

Access: The Fortymile River basin is accessible by road, air, and water. There are no rail facilities. The Alaskan Highway skirts the southern part of the region and provides access from Anchorage, Fairbanks and the Lower 48 states. Direct access from the Alaska Highway to the Fortymile basin is provided by the Taylor Highway to Eagle and the Top of the World Highway to Dawson City, Yukon Territory, Canada. Primitive roads and fire lanes lead from the Taylor Highway to various parts of the Fortymile basin but are generally impassable in summer. Air service provides access to Northway, Tanacross, Eagle, and Chicken which have improved airfields. Air access is also provided at primitive air strips and gravel bars throughout the area. BLM is mandated by its River Management Plan to manage the land within the Wade Creek Withdrawal to be “readily accessible by road or railroad.” During the winter the area is accessible by snow machine or dog sled.

Function and/or available activities: The land surrounding the Fortymile W&SR is mostly undeveloped and unpopulated. There are no communities within the Fortymile management area with a population of greater than 50 people. Chicken is the largest community in the Fortymile management area with an estimated population of 24 in 2002.

According to the Fortymile River Management Plan, Wade Creek receives more visitor use than any other stream segment in the Fortymile W&SR because the highway runs along Wade Creek and the Walker Fork Campground is located at its mouth (DOI, 1983). Visitors to the Withdrawal participate in recreational activities such as camping at the Walker Fork Campground, visiting the Jack Wade Dredge, fishing in Walker Fork, hunting, wildlife viewing, and snow machining. Visitor’s access to the Fortymile W&SR is by private vehicle or tour bus during the summer months and snow machine or dog sled during the winter. ADOT&PF does not maintain the road during the winter. There are few developed recreation sites in the Fortymile management area. Within the project area there are waysides at Mosquito Fork (MP 64 Taylor Highway), South Fork (MP 75 Taylor Highway), and Davis Dome (MP 11.7 Top of the

World); a hiking trail at MP 68.2 Taylor Highway; and a campground at Walker Fork (MP 82 Taylor Highway). BLM keeps records of the number of visitors participating in recreational activities in the Withdrawal and these statistics are summarized in Table 2.

Table 2
Number of Visitors to Various Places in the Wade Creek Area^a

Location	Activity	Number of Users in 2003
Walker Fork Campground	Camping	7,015 ^b
Jack Wade Dredge	Viewing historic dredge	10,515 ^c
Walker Fork	Fishing	200 ^d
Wade Creek	General recreational activities ^e	1,000 ^f
Poker Creek Border Station	Vehicle passengers	55,580 ^g

- a. Source: BLM, December 2003
- b. Use number is based on the number of campground registrations received by BLM.
- c. Number of visitors was determined using a formula based on the total vehicles/passenger numbers at the Poker Creek border crossing.
- d. Use number is based on observation and estimation.
- e. Includes: camping, hiking, photography, picnicking, and fishing.
- f. Use number is an estimation by BLM.
- g. Number of passengers counted passing through the U.S. Canadian Border.

BLM's River Management Plan for the Fortymile W&SR contains the following description of Wade Creek: "It may be unique in the Wild and Scenic system because its course and bed are largely reflections of mining activity. A dredge, now in ruins near MP 86, operated on the creek for several years in the 1930's and 1940's, changing the course of the stream with tailing piles as it worked up the drainage." According to BLM's *Preliminary Finding (BLM) Pursuant to Section 7 of the Wild and Scenic Rivers Act for the Proposed Taylor Highway Project (MP 64 near Chicken, Alaska, north to the Canadian Border)*, Wade Creek has been moved about for decades by miners whose rights under mining laws supercede the protection provided by the Wild and Scenic Rivers Act. Federal mining claims extend the entire length of Wade Creek. Mining rights also predate the road ROW and over the years the highway has been routinely rerouted in the process of mining operations. Mining has left over 650 acres of river bottom land in unstable condition, moved approximately 1.1 million cubic yards of material, buried dozens of acre-feet of silt in former settling ponds, and created piles of tailings containing thousands of cubic yards of rock. These mining practices have created an unstable creek bed that has contributed to periodic washouts of the Taylor Highway (BLM, 2003).

Project Impacts to the Section 4(f) Site

The total Section 4(f) site is greater than 100 acres and the taking does not exceed 1% of the total acreage. The total size of the Wade Creek Withdrawal is approximately 3,302 acres. The total

amount to be acquired by the proposed project is approximately 3.6 acres (0.1 percent of the Wade Creek Withdrawal).

The proposed project is likely to result in improved water quality of Wade Creek, a more stable roadbed, and increased floodplain along Wade Creek. BLM completed a preliminary Section 7 Evaluation for the proposed project that stated "since the existing roadway adjacent to Wade Creek currently poses significant problems, due to diversions, impoundments, and increased sediment runoff whenever it rains, moving the road as far as possible away from the creek would have the greatest single reduction in impacts to the water resources" (Attachment A). In order to improve and protect the water quality of Wade Creek, ADOT&PF is minimizing the use of riprap and is moving the road away from Wade Creek where possible to create a buffer zone between the road and Wade Creek. Erosion and sedimentation levels are expected to decrease with the replacement of culverts and the creation of additional floodplain along Wade Creek. Short-term impacts during construction will include temporary increased sedimentation, but the impacts are expected to be temporary.

cross
Ref #1
Sec 7

No anadromous fish streams exist in the project area. Arctic grayling and slimy sculpin may migrate up Wade Creek during the summer to take advantage of feeding opportunities but, Wade Creek currently has little suitable habitat to support resident fish populations (BLM, 2003). No essential fish habitat is present in the project area.

The proposed project will affect approximately 1.81 acres of black spruce wetlands located adjacent to the road. There are no high-value wetlands located in the project area. According to BLM, the ponds and marshes adjacent to the road along Wade Creek are the result of ground disturbing activities from mining activities. Many are old settling ponds or small stream diversions that collect storm runoff, but cannot drain because of tailing piles or the roadbed. Rehabilitation of the road will help restore natural drainage patterns.

On October 30, 2003 the State Historic Preservation Officer concurred that no historic properties would be affected by the proposed project, provided that any road widening would occur on the opposite side of the present highway from Jack Wade Camp and Jack Wade Dredge (Attachment B, Photo 4). The proposed project conforms to these constraints.

no 401
trigger

The project would not require land from a site purchased or improved with funds under the Land and Water Conservation Fund Act, the Federal Aid in Fish Restoration Act (Dingell-Johnson

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Act), the Federal Aid in Wildlife Act (Pittman-Robertson Act), or similar laws, or lands otherwise encumbered with a Federal interest.

Alternatives

No Build Alternative

The No Build Alternative would not correct existing roadway deficiencies such as insufficient width, deteriorated conditions, and maintenance problems (Attachment B, Photo 3). Delayed maintenance and reconstruction costs are likely to increase significantly as deteriorating conditions in problem areas compound over time.

Without additional ROW or highway improvements at Section 4(f) land areas A through D and G through J, erosion by Wade Creek would continue and the pattern of cursory, temporary repairs made each year would continue. The deteriorating highway conditions and maintenance problems would compound and increase significantly over time. The road would continue to be narrow, shoulder less, and frequent washouts would continue to be expected.

Under the No Build Alternative, primary safety hazards presented by existing highway conditions would continue. Insufficient sight distances around substandard curves would not be corrected at areas I and J, and areas E and F would continue to have insufficient roadway width.

Build Alternative that Does Not Use Section 4(f) Land

Since the Taylor Highway bisects Section 4(f) land in the Withdrawal, any proposed realignment outside the current ROW needed for safety or physical improvements would require use of Section 4(f) lands. It is not possible to avoid Section 4(f) land within the proposed project area by using roadway design or transportation system management techniques. Implementing such measures without using a minor amount of Section 4(f) land would result in the project not meeting the long-identified transportation needs.

The project included evaluation of four engineering design alternatives to avoid impacts to Section 4(f) lands. All four alternatives were determined to not meet the purpose and need of the project for the identified Section 4(f) land areas in question. The four eliminated designs are summarized below.

Design Option 1

Option 1 would leave the road in its current location with no widening or realignment, but would provide highway surfacing with high-float asphalt. The road would continue to be narrow, shoulderless, and would continue to erode. Frequent washouts could be expected to continue. Sedimentation of Wade Creek due to erosion of sideslopes and roadbed structure would continue to occur.

By surfacing the current roadway without widening or realignment the road would not benefit from safety enhancements provided by the proposed project. Restoration and improvement of the existing roadway located in the Wade Creek floodplain (Areas A-D and G-H) would not prevent future embankment erosion nor would it allow for increased stabilization of the floodplain.

Leaving the road in its current alignment and surfacing with high-float asphalt would not meet the purpose and need of the project to restore and improve the structural integrity and drainage of the existing roadway, enhance safety by improving deficient roadway geometry, and provide reliable summer access to the Wade Creek recreation area. Therefore, this option has been dropped from further consideration.

Design Option 2

This option involves steepening the slope of the road prism. The maximum slope allowed, based on the material available for road construction, is 1.5:1. The proposed road design currently incorporates side slopes of 1.5:1. Steepening the road prism to greater than 1.5:1 would create an unstable roadbed that would be subject to erosion and would be unsafe for vehicle traffic.

This alternative would not meet the purpose and need of the project to enhance safety by improving deficient roadway geometry and provide reliable summer access to the area. This option has been dropped from further consideration.

Design Option 3

Another option is to reduce the width of the traffic lane shoulders and the corresponding clear zone, thus reducing the overall footprint area of the highway. The proposed project includes a 28-foot wide roadway with two 10-foot lanes and 4-foot shoulders on either side. With reduced road width, the road would continue to provide inadequate width for commercial and recreational vehicles to pass and there would continue to be inadequate width for vehicles to maneuver around hazards and compensate to stay on the road.

Reducing the roadway width in certain sections to avoid Section 4(f) property would cause inconsistent road conditions and would not meet the purpose and need of the project to enhance safety by improving deficient roadway geometry. This option has been dropped from further consideration.

Design Option 4

This option requires changing the verticle alignment of the road. The purpose of the project is to design for geometric integrity, which includes minimizing vertical changes and maintaining consistent grades for trucks with heavy loads. By lowering the verticle alignment of the road the road would continue to subject to flooding and erosion by Wade Creek. Frequent washouts can be expected to continue to occur. The road would continue to have inconsistent grades making driving the road difficult for commercial vehicles

Lowering the roads verticle alignment would not meet the purpose and need of the project which is to restore and improve the structural integrity and drainage of the existing roadway and provide reliable summer access to the Wade Creek recreation area. Therefore, this option has been dropped from further consideration.

Build Alternative on New Location

In order to construct a roadway free of embankment erosion and flooding from Wade Creek and free of deficient geometry without involving Section 4(f) land, a new Taylor Highway corridor outside of the Withdrawal would be necessary (Figure 2). New route alternatives would be limited to construction within the surrounding mountain range. Two alignments were considered; one that went north and west of the project area and one that went south and east of the project area. Both alternative alignments would result in substantial adverse environmental impacts and substantially increase the project cost. The alignment north and west of the Section 4(f) property would have required construction of 20 miles of road with numerous bridges. The south east alignment would require 11.5 miles of new road with several bridges. The significant level of engineering and contruction required to establish a new highway route is anticipated to be significantly more expensive and complicated than the proposed project.

In addition, establishment of new routes would result in significant environmental impacts. A new highway route would significantly reduce access by the traveling public to existing recreational facilities and cultural resources along Wade Creek. Reducing access to the Wade Creek area to the traveling public would not meet the management guidelines of the Fortymile

Wild and Scenic River Management Plan which states that the Wade Creek Area will be managed to be “readily accessible by road or railroad.”

Minimization of Harm

The proposed project design includes all possible planning to minimize harm to the Section 4(f) land, provides new recreational facilities, and in several areas, provides long-term benefits for protection against erosion to improve the water quality of Wade Creek. Extensive planning and fieldwork has been conducted with BLM to ensure the road design will protect and enhance Wade Creek and its immediate environment in order to make long-lasting improvements. BLM agreed with the assessment of impacts and proposed mitigation measures on May 14, 2004 (Attachment C). Mitigation for the use of the Section 4(f) property includes moving the road away from Wade Creek where possible, minimizing the use of riprap during road construction, regrading and blending of the abandoned road bed to create additional floodplain for Wade Creek, construction of a wayside at Walker Fork, and maintenance of the existing tree buffer between the highway and the historic Jack Wade Camp.

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to Appendix*

ADOT&PF will prepare an Erosion and Sediment Control Plan to minimize the potential for sediment to reach surface waters. Temporary erosion control measures, including straw bales and/or silt fencing will be used during construction and kept in place until newly seeded plants can bind with the soil. The Contractor will prepare a SWPPP to reduce air, water, and noise construction impacts to the maximum extent practicable. This will include a Hazardous Materials Control Plan (HMCP) to address measures to prevent and respond to potential releases of hazardous material during construction. Refueling and servicing of equipment shall not be performed within 100 feet of wetlands or waterbodies with the exception of low mobility equipment being used for road construction. The HMCP will provide a detailed process for fueling this equipment within 100 feet of wetlands or waters of the U.S. (Wade Creek). Fueling and service vehicles will be equipped with adequate materials (such as sorbent pads, booms, etc) to immediately contain and commence clean-up of spilled fuels and other petroleum products.

Coordination

The environmental process originally began for a portion of the project area in 1997 for MP 82 to the Alaska/Canada Border. A draft Categorical Exclusion (CE) and Section 4(f) document were prepared by ADOT&PF and reviewed by BLM. On February 19, 1998, BLM concurred with the findings in the two reports. The CE was never finalized or approved by FHWA because it was

determined that the environmental document needed to cover proposed road improvements from MP 64.5 to the Alaska/Canada Border.

In December 1999, ADOT&PF initiated the environmental process for rehabilitation of the Taylor Highway this time from MP 64.5 to the Alaska/Canada Border. A meeting was held with BLM on December 16, 1999 to discuss project status and schedule. On September 5, 2001, ADOT&PF sent out agency scoping letters. In response to the scoping letter BLM sent a letter requesting more detailed information about the project. To answer BLM's questions ADOT&PF and BLM met on January 17, 2002 to discuss project schedule, ROW status, and Fortymile management requirements. In September 2002, the environmental services for the project were contracted to a consultant and the NEPA process was initiated with a site visit and initiation of the public and agency scoping in November 2002.

An agency meeting was scheduled for December 4, 2002 at the ADOT&PF Fairbanks office. Due to a lack of interest from the natural resource agencies the meeting was not held. Agency scoping letters were sent out on November 29, 2002 with comments requested by December 31, 2002.

Numerous meetings were held between ADOT&PF and BLM. BLM attended the public scoping meeting in Tok on December 5, 2002 and met with ADOT&PF after the meeting to discuss the project. In February 2003, the ADOT&PF project manager, design engineer, BLM hydrologist, and BLM Outdoor Recreation Planner met several times in Fairbanks to discuss the road alignment, road design, and the use of riprap along Wade Creek. During these meetings BLM requested that the road be moved as far from Wade Creek as feasible and that the use of riprap be minimized. Based on these meetings, ADOT&PF revised the road design to incorporate BLM's requests to the extent possible. On June 9, 2003 ADOT&PF, BLM, and ASCG met in Tok to discuss the proposed project. The next day (June 10) ADOT&PF and BLM participated in a site visit to discuss project details such as the location of proposed waysides, proposed bridge work, and the location and rehabilitation of material sites. The entire project corridor was driven during the site visit. Coordination with BLM has also involved many phone calls and emails with ADOT&PF and ASCG.

BLM has agreed in writing with the impact assessment and mitigation measures on May 14, 2004 and a copy of their letter can be found in Attachment C.

Certification and Approval

I certify that all applicable coordination and consultations have occurred during the development of this Section 4(f) Evaluation and that this project meets all criteria and findings required for approval under the FHWA, Programmatic Section 4(f) Evaluation approval dated December 23, 1986.

Certified by: _____ Date: _____
Regional Environmental Coordinator

Based upon the above considerations, there is no feasible and prudent alternative to the use of land from the Fortymile Wild and Scenic River – Wade Creek Recreational Withdrawal and the proposed action includes all possible planning to minimize harm to the Fortymile Wild and Scenic River – Wade Creek Recreational Withdrawal resulting from such use.

Approved by: _____ Date: _____
FHWA, Environmental Project Manager

Cc: Nancy Whicker, BLM
Susan Will, BLM



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From:

Mary Maggie Randy Nancy Kevan Kent
Jeff Heath Steve Shane

Regarding: Preliminary Sec. 7 Finding - Tay Hwy Proj-

Place x in box if Confidential

Message:

Per our telephone call this morning,
this is still considered a draft until
signed.

Nancy Miller, Realty Specialist

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DRAFT

May 8, 2003

Preliminary Finding (BLM) Pursuant to Section 7 of the
Wild and Scenic Rivers Act
For the Proposed Taylor Highway Project
(MP 64 near Chicken, Alaska, north to the Canadian Border)

Proposed Action

The State of Alaska Department of Transportation and Public Facilities (ADOTPF) proposes to upgrade the portion of the Taylor Highway that parallels Wade Creek. The purpose of the project is to improve the safety of those traveling the highway, lower scheduled maintenance costs, and reduce the negative effects of flooding on the highway and the waters of the area. As of April 2003 the project has not been precisely described by design drawings. The detailed design will only be prepared following approval of the National Environmental Policy Act (NEPA) process and if funding is obtained for the project.

The following are descriptive excerpts from the scoping documents provided by ADOTPF:

"Alignment – The present highway alignment will be maintained except for minor realignments to reduce curvature on corners and shifting the highway away from the Wade Creek floodplain between MP 84 and 85. The proposed highway realignments at corners average 0 to 15 meters (0 to 50 feet) from the existing highway centerline. Along Wade Creek, the maximum shift is 30 meters (0 to 100 feet) from the centerline. The road will be improved by widening the road to 28 feet with two 10-foot lanes and 4-foot shoulders and surfaced with "high float asphalt". Drainage will be improved to convey water away from the road by ditching parallel to the road and installing cross-drainage under the road."

"Material and Disposal Sites – Material for road construction will come from road cuts/unclassified excavation and tailings from Wade Creek. There are also nine state-owned material sites available if they are needed during construction. Figures 1 and 2 show the locations of material sites. Additional unclassified excavation will be used as slope flattening in non-wetland areas. Disposal sites have not yet been identified. A Storm Water Pollution Prevention Plan and all necessary permits and clearances for material and disposal sites will be obtained prior to construction."

"Impacts to Water bodies – Streams within the project corridor that could be temporarily affected by road rehabilitation include: Chicken Creek, Lost Chicken Creek, South Fork, Walker Fork, Wade Creek, Warner Creek, Gilliland Creek, and several unnamed tributaries to Wade Creek. The Chicken Creek bridge will be replaced with a single span bridge. In-water work will be required at the Chicken Creek bridge for replacement of the old bridge. Approach and bridge railing work will be performed on the South Fork and Walker Fork bridges. In-water work will be required at the South Fork Bridge to repair a concrete pier. Work will be conducted at and below the water line. No reclamation of the Wade Creek floodplain will occur as outlined in previous

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project plans. An ADF&G habitat permit will be required for work in fish bearing streams including Chicken Creek and South Fork.

“Culverts-Culverts will also be installed at numerous locations to maintain natural drainage patterns. All culverts will be sized and installed to maintain water flow during high-water conditions and prevent restriction of fish passage. Culvert design and installation will follow guidance outlined in the "Memorandum of Agreement – Design, Permitting and Construction of Culverts for Fish Passage" between the ADOT&PF and ADF&G”

“Flood Plain Management – There are no Federal Emergency Management Agency Flood maps for the project area. The Alaska Community Flood Hazard Information website did not have flood information for Chicken or Boundary. According to a BLM publication Water Resources of the Fortymile National Wild & Scenic River, Alaska, the Mosquito Fork is subject to flooding during moderate to high water, the South Fork is subject to flooding only during extreme high water, and the Walker Fork is subject to flooding during moderate to high water. During the site visit there was evidence of erosion from high water of the Taylor Highway along Wade Creek at approximately MP 83 and 84. The proposed project will move portions of the Taylor Highway out of the Wade Creek floodplain.”

“Wetlands – There are no National Wetlands Inventory Maps available for the project area. A wetlands delineation based on aerial photography and field verification was conducted on September 10 to 13, 2002. A wetlands delineation report is currently being prepared. Preliminary information indicates that most areas with black spruce forest are considered wetlands along the Taylor Highway. Changes in the road footprint will likely result in impacts to the forested spruce wetlands. There are also scrub shrub and emergent wetlands associated with Wade and Walker Creeks along the road right of way. These wetlands have been highly disturbed by mining activities. It is likely that a Section 404 permit would be needed from the USACE for the proposed project.”

Background Information

Wade Creek is a component of the Fortymile National Wild and Scenic River (FNWSR) system, and is managed as a recreational river area. Walker Fork and South Fork are also part of the FNWSR managed as scenic river areas. The proposed upgrade of the highway will require the placement of fill and riprap that could restrict the ability of the Wade Creek channel to meander naturally within its valley. Because of this direct impact on the “free-flow” of the stream, the Bureau of Land Management as federal manager of the wild and scenic river area is required to determine whether or not the proposed action will have a “direct and adverse” impact on the values for which Wade Creek was added to the national system pursuant to Section 7 of the Wild and Scenic Rivers Act. As mentioned above, we lack detailed and final information about the project. We do not know exactly how much fill or riprap will be used or exactly where the road will be moved from its existing location, nor do we know where the existing stream lies relative

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to the road. However, we do know that the project will likely result in improved water quality in Wade Creek, a more stable roadbed, and that when the roadbed is realigned, it will likely move away from the creek rather than towards it. This draft finding was prepared based on preliminary working drawings and tabular information, incomplete surveys, and discussions with DOT staff.

One interesting fact which is quite unusual for wild and scenic river areas, is that throughout the project area Wade Creek does not flow in a "natural" channel. Instead, the stream has been moved about for decades by miners whose rights under the mining laws supersede the protections provided by the Wild and Scenic Rivers Act. Miners had rights that also predated the right-of-way for the road and routinely rerouted the highway and stream in the process of mining their claims. Miners have left over 650 acres of river bottom land in unstable condition (moving approximately 1,140,000 cubic yards of material in the process), buried dozens of acre-feet of silt in former settling ponds, and created piles of tailings containing many thousands of cubic yards of rock. These practices have decreased the average depth and sinuosity of Wade Creek and increased turbidity and bedload creating a situation where the channel has been unstable since at least the early 1900's. This unstable channel led to persistent flood damage to the Walker Fork Tent Campground that was been closed as a result by BLM. The instability of the channel and floodplain has also contributed to periodic washouts of the Taylor Highway causing episodes of impaired water quality during the flood events and during reconstruction activities.

Affected Environment

Direct alteration to within-channel conditions

The proposal includes several areas where the current channel runs right along the road. In these areas, the road would be moved away from the creek. This would have the effect of moving the artificial stream bank provided by the existing road fill that would effectively widen the flood plain. While new stream channel would not be constructed during the project, it is likely that the stream would become more sinuous and that channel slope, depth, and velocity would all decrease in these areas. Removal of roadway materials from the floodplain in those areas where realignment occurs would create short-term disturbance, primarily erosion and sedimentation during construction, but the additional space created within the Wade Creek floodway would help minimize long-term effects of flooding.

The improvements to channel stability conditions could be greatly enhanced if the road were moved above the floodplain and if the mining tailing piles and capped settling ponds were more fully reclaimed.

While removal of material from the floodplain would create short-term disturbance to the Wade Creek floodplain during construction, the additional space created within the floodway would help minimize effects of flooding such as erosion and sedimentation that currently impact the stream. Blending the former tailings piles to create better drainage as well as seeding to promote revegetation would be an improvement over the existing unreclaimed tailings piles scattered along the floodplain.

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Changes to water quality as a direct result of the project

Currently the natural drainage patterns are disrupted by past mining activities, the existing road, and the lack of culverts working to divert, impede, or block flow in stream channels. Blockages or diversions resulting from insufficient flow capacity can result in seasonal or permanent impoundments. Diverting stream flow can also result in increased bank or shoreline erosion and sedimentation as well as potential thermokarst where permafrost is present. Proper siting and adequate design capacity of culverts and bridges will minimize these impacts. Any short-term disturbance, primarily erosion and sedimentation during construction, would be offset by the reduction in the flood damage that occurs annually within the watershed from the current deranged drainage and inadequate culverts.

During the construction phase water quality would decrease due to soil disturbance. In the mid- to long-term, water quality should improve somewhat due to the decrease in average velocity and control of runoff through improved road design and improved culvert design and installation.

Changes to fish habitat as a direct result of the project

Walker Fork currently supports an Arctic grayling fishery. Slimy sculpin, longnose sucker and whitefish species are present as well. There are no anadromous fish migrating, spawning, or rearing in Walker Fork. Arctic grayling and slimy sculpin may migrate into Wade Creek during the summer months to take advantage of feeding opportunities in its tributaries.

The proposed activity is unlikely to have negative impacts and may benefit the fish using Walker Fork and Wade Creek. Wade Creek currently has little suitable habitat (spawning or rearing) to support a resident fish population.

If the project included moving the road out of the floodplain, and reclamation of mining impacts, the beneficial impacts would be maximized. Floodplain restoration and revegetation would create new habitat and enhance the small resident fishery.

Changes to navigability of the stream as a direct result of the project

To the best of our knowledge, Wade Creek is not suited for boating due to lack of adequate depth except during flood events. The proposal would not affect navigability during normal or flood flows.

Direct alteration to riparian and floodplain conditions

The plan and profile annotated by ADOT engineers indicates that up to approximately 3.5 miles of road at an average shift of 28 feet will require realignment along Wade Creek. Bank armoring (possibly including riprap) may be required along approximately two miles of road. Construction or other activities (such as material sites, equipment storage, and construction camp sites) that could affect the streambanks, floodplain, or remove protective shoreline vegetation might disturb up to double the area of road realignment or up to 25 acres during construction.