APPENDIX D

BLM PRELIMINARY SECTION 7 EVALUATION

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Fortymile Team
Tok Field Station
P.O. Box 309
Tok, Alaska 99780
Phone: (907) 883-5121
Fax: (907) 883-5123

Date: Beth Miller, ASCG, Tay Hwy Project
To: 5-8-03 FAX 339-5329

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 Ithichuk, Realty Specialist

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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

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 supercede 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.

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The bridgework proposed by ADOT involves no surface disturbing activities in the floodplain due to the use of pier coffer dams, boating the crews to the work area, and supply lines running from the top of the bridge structure. Thus, there should be minimal impacts during construction and no impacts afterwards. Other than a short stretch of roadway near the South Fork ADOT camp where the river is currently eroding the road, no realignments are proposed within the FNW&SR corridor except at Wade Creek. The maximum shift of the road alignment estimated to be less than 150 feet from the existing centerline will definitely not be sufficient to move any existing portion of the road out of the Wade Creek floodplain. The additional space created within the floodway by shifting the road away from the creek an average of 28 feet would help minimize effects of flooding such as erosion and sedimentation that currently impact the stream whenever it rains.

ADOT does require an Erosion and Sediment Control Plan (ESCP) to ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized. Stabilization practices may include: temporary and permanent seeding, mulching, geotextiles, vegetative buffer strips, protection of trees, preservation of mature vegetation, construction phasing, and other appropriate measures. The surfaces of the existing embankment slopes are coarse gravel. Temporary stabilization practices may include temporary seeding, surface roughening, construction of mulching, and construction phasing. Permanent stabilization practices consist of limited areas of permanent seeding. Structural practices that may be implemented to divert flows from exposed soils, store flows, or limit runoff and discharge of pollutants from the exposed areas of the site may include silt fences, earth dikes, drainage swales, sediment traps, check dams, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. Temporary structural practices shall include straw bale barriers, silt fences, temporary shoulder berms, brush barriers, sediment traps, check dams, and temporary pipe outlet protection. The ESCP also requires that steps be taken during the construction process to control pollutants in storm water discharges that may occur after construction operations have been completed. These measures may be subject to Section 404 of the Clean Water

This project would create over 12 acres of additional floodplain adjacent to Wade Creek after construction is completed. This area would act as an additional buffer strip, separating the creek from the road. The increase in floodway width would help minimize effects of flooding such as erosion and sedimentation that currently impact the stream whenever it rains. Regrading and blending the former roadbed to create more direct drainage as well as revegetation of the newly created floodplain would be a great improvement over existing conditions.

High-value wetlands—those that provide critical aquatic habitat to fish, birds, or mammals for feeding, nesting, or habitation—are almost nonexistent within the project area. The ponds and marshes adjacent to the road along Wade Creek resulted from ground disturbance during past placer mining. Many are either old settling ponds or small stream diversions that collect storm runoff but cannot drain due to mining berms or roadbed that block the drainage. Clearing the berms, road realignment, new culverts, and

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proper regrading will help restore the natural drainage pattern. Revegetation associated with the road reconstruction may eventually restore some of the seasonally flooded marshy and riparian areas adjacent to the creek.

Direct alteration to upland conditions particularly outstandingly remarkable values
The proposed action as described is unlikely to affect upland conditions significantly so long as standard stipulations to preserve historic and cultural resources are followed. Evidence of historic human activity in the area is one of the values for which the area was designated and should be protected adequately by site specific cultural reviews and standard stipulations required by the State Historic Preservation Officer.

Relationship of the project to river management goals
Most of the project involves reconstruction of the current roadway and replacement of existing culverts so impacts should be minimal using proper sediment control during construction. The bridgework proposed by ADOTPF involves no surface disturbing activities to the channel or stream banks so should have minimal impacts during construction and none afterwards. The road realignment for the Wade Creek section of the project involves a total of up to 3.5 miles of road at an average shift of 28 feet and could cause up to 25 acres of disturbance to the Wade Creek floodplain. Short-term disturbances, primarily removal of vegetation and erosion and sedimentation during construction, would occur in areas where Wade Creek is adjacent to the road. However, ADOT does require an Erosion and Sediment Control Plan to ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized. After construction is completed, the additional space created by moving the road away from the creek would create over 12 acres floodplain to act as a buffer strip, separating the creek from the road. This additional space within the floodway would help minimize long-term impacts of flooding, such as erosion and sedimentation that currently impact the stream whenever it rains. The new culverts should also reduce the flood damage from the current lack of proper drainage and inadequately sized and spaced culverts. The project should improve public safety and generally improve environmental conditions in the stream and floodplain which is consistent with the BLM's wild and scenic river management mandate to protect and enhance free-flow, water quality and outstanding values of the river area. The proposed project would not avoid all impacts to the river area because of constrained funding sources for small improvements to alignment rather than wholesale relocation,. There will still be confinement of the stream particularly during floods, and there will still be impacts to water quality due to runoff from the road area and adjacent mining disturbance.

Since the existing roadway adjacent to Wade Creek currently poses significant problems, due to the 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. Clearing the berms, road realignment, new culverts, and proper regrading would help to restore the natural drainage pattern. Revegetation associated with the road reconstruction may eventually restore some of the seasonally flooded marshy and riparian areas adjacent to the creek.

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Section 7 finding

Our preliminary finding is that the proposed project would not have a direct and adverse effect on the potentially impacted components of the Fortymile National Wild and Scenic River system. Given the fact that the project has yet to be designed in detail, we can only make a preliminary Section 7 finding based on the scoping information and informal discussions we have held with ADOTPF staff.

The above determination was analyzed by the following individuals from the Northern Field Office and the Fortymile Management Team:

Hydrologist - Jon Kostohrys
Outdoor Recreation Planner - Lon Kelly
Fisheries Biologist - Ingrid McSweeny
Fortymile Team Manager – Mary Figarelle

I concur with the preliminary finding that the proposed Taylor Highway project would not have a direct and adverse effect on the potentially impacted components of the Fortymile National Wild and Scenic River system.

_____ **Date:** _____

Robert W. Schneider, Manager

Bureau of Land Management
Northern Field Office
1150 University Avenue
Fairbanks, AK 99709-3844

AK026:NWhicker:Lands/DOTPF/Tay Hwy/Sec 7 Determination/WadeCrSec7 Prelim Doc 050803.doc