

Programmatic Section 4(f) Net Benefit Evaluation

Project Name: SH-75, Galena Summit Slide, Blaine County	
ITD Key No. 19171	ITD Project No. A019(171)
District: 4	County: Blaine
Authors: Tracy Schwartz and Connie Jones	Date: June 13, 2018

Introduction:

The following Programmatic Section 4(f) Net Benefit Evaluation discusses the unavoidable impacts to Galena Toll Road and Sawtooth Park Highway/Old Hwy 93 (ASI# 10BN306 / IHSI# 13-16171) as a result of the proposed permanent landslide repair to address existing and future landslide concerns of State Highway 75 (SH-75) at milepost 156.70 in Blaine County, Idaho.

Proposed Action:

The purpose of the project is to reduce the slide hazard to SH-75 and thereby improve safety for the traveling public on SH-75 near Galena Summit, near milepost 156.70. An active landslide exists in this project area that requires frequent repairs to keep SH-75 open to the traveling public. The active slide is approximately 300-400 feet long, 300-400 feet wide, and 30-40 feet deep. This landslide has damaged the highway numerous times in the past resulting in costly repairs and shifting of the roadway alignment. ITD proposes to lessen the impact of the active landslide to SH-75 by constructing a hillside support system. By increasing hillside support, future slide impacts to the road will decrease. The proposed project would stabilize the landslide by buttressing the slope toe to prevent further hillside movement. Once buried as a result of stabilization efforts, the existing Sawtooth Park Highway/Old Hwy 93 road, now included in the Sawtooth National Forest (SNF) trail system, will be reconnected south of the toe berm buttress if that action is approved by the SNF.

The proposed project includes constructing a buttress/berm with native rock, soil, and vegetation at the toe/base of the slide area and reinforcing the hillside supporting the highway. This proposed plan provides long-term lateral support to the slide mass, which will improve highway stability. Correction of the slide involves the placement of approximately 80,000-100,000 cubic yards of rock and soil at the toe of the slide, buttressed against the opposing hillside.

Description of and Impacts to the Galena Toll Road and Sawtooth Park Highway/Old Hwy 93:

The following is from the Archaeological and Historic Survey Report by Niki Nickoloff, M.A.A. and Jillian C. Martin, M.A.A. (March 2017):

As a whole, these three sites have been previously recorded several times and those previous recordations have used numerous names for the road(s) including; Galena Toll Road, Galena Travel Corridor, Hailey-Ketchum Toll Road, Sawtooth Park Highway, Galena-Ketchum Toll Road, CCC Built Road, Old Hwy 93/Now 75, SH-75, and Old Untied States Highway 93. Historic research revealed that the names in local usage were Galena Summit, Summit Road, "the hill" and later, Ketchum-Galena Highway. For the purposes of this report and recording, the earliest road, will be referred to as the Galena Toll Road. The new road, having first completion in 1920 will be referred to as the Sawtooth Park Highway/Old Hwy 93 and the current modern corridor will be referred to as SH-75...

The Galena Toll Road and the Sawtooth Park Highway/Old Hwy 93 as a whole are individually eligible for the [National Register of Historic Places] under Criteria A, C, and D. Under Criterion A, the Galena Toll Road is important to the broad patterns of mining and settlement history in Blaine County (generally) and the Galena Summit area (specifically), while the Sawtooth Park Highway/Old Hwy 93 is important to the broad patterns of transportation in Blaine County (specifically) and the state of Idaho (generally). Both the Galena Toll Road and the Sawtooth Park Highway/Old Hwy 93 embody distinctive characteristics of a type, period, or method of construction (Criterion C); and both are likely to yield information important in history (Criterion D). The Galena Toll Road consists of a total of 15 segments of which 13 are contributing to the site's NRHP eligibility. The Sawtooth Park Highway/Old Hwy 93 consists of a total of 8 segments of which six are contributing to the site's NRHP eligibility.

In order to correct the Galena Summit landslide, approximately 550 feet (0.1 miles) of the Sawtooth Park Highway/Old Hwy 93 will be buried as part of the slide buttress. In this area, the Galena Toll Road does not run along the same alignment as the Sawtooth Park Highway/Old Hwy 93.

Applicability:

This programmatic evaluation satisfies the requirements of Section 4(f) for projects meeting the following criteria:

- 1) "The proposed transportation project uses a Section 4(f) park, recreation area, wildlife or waterfowl refuge, or historic site." *The proposed project uses the Sawtooth Park Highway/Old Hwy 93, a property eligible for listing in the National Register of Historic Places.*

ITD Key No. 19171 – SH-75, Galena Summit Slide Milepost 156.7, Blaine County

- 2) “The proposed project includes all appropriate measures to minimize harm and subsequent mitigation necessary to preserve and enhance those features and values of the property that originally qualified the property for Section 4(f) protection.” *The project was designed in a way that results in the fewest impacts to the Section 4(f) property. A Memorandum of Agreement (MOA) has been executed under Section 106 of the National Historic Preservation Act of 1966 (NHPA) which includes mitigation addressing adverse effects to the Sawtooth Park Highway/Old Hwy 93.*
- 3) “For historic properties, the project does not require the major alteration of the characteristics that qualify the property for the National Register of Historic Places (NRHP) such that the property would no longer retain sufficient integrity to be considered eligible for listing...” *The Sawtooth Park Highway/Old Hwy 93 will continue to convey historic significance and remain eligible for listing in the NRHP.*
- 4) “For historic properties, consistent with 36 CFR 800, there must be agreement reached amongst the SHPO and/or THPO, as appropriate, the FHWA and the Applicant on measures to minimize harm when there is a use of Section 4(f) property. Such measures must be incorporated into the project.” *The Idaho SHPO has been consulted on this project.*
- 5) “The official(s) with jurisdiction over the Section 4(f) property agree in writing with the assessment of the impacts; the proposed measures to minimize harm; and the mitigation necessary to preserve, rehabilitate and enhance those features and values of the Section 4(f) property; and that such measures will result in a net benefit to the Section 4(f) property.” *Please see Appendix A for agreement from the Idaho SHPO that proposed measures minimize harm and will result in a net benefit to the Sawtooth Park Highway/Old Hwy 93.*
- 6) “The Administration determines that the project facts match those set forth in the Applicability, Alternatives, Findings, Mitigation and Measures to Minimize Harm, Coordination, and Public Involvement sections of this programmatic evaluation.” *The Idaho Division Office of the FHWA has determined the project meets the Section 4(f) Net Benefit Programmatic Evaluation.*

Avoidance Alternatives and Findings:

Alternative 1: Do Nothing

The Do Nothing Alternative is not feasible and prudent because it does not address nor correct the transportation purpose and need of the proposed project. SH-75 would continue to operate with the high potential to slide in the future. SH-75 is a major connector between the communities of Stanley and Ketchum. In addition, SH 75 provides access to the mountainous area of south-central Idaho, the Sawtooth National Recreation Area, which is highly valued for its rugged and historic scenery and for recreational opportunities. It is also linked to other State Highways and provides one of the few connections across the central portion of Idaho. Not addressing the purpose and need of the project will impact the choices the traveling public has to access the mountainous area of south-central Idaho. Failing to complete long term repairs will also have negative effects on Stanley, Idaho as the travel routes will be further limited.

Alternative 2: Improvement without Using Adjacent Section 4(f) Properties

It is not feasible and prudent to avoid the Section 4(f) property by using engineering design or transportation system management techniques, such as a minor location shift. The landslide event is occurring near milepost 156.70 on SH-75 in an area entirely surrounded by mountains and the landslide is directly impacting the 4(f) property. The project is also located within the Sawtooth National Recreation Area on U.S. Forest Service lands. Due to the terrain, shifting the location would substantially increase the transportation facility cost and pose a unique engineering problem. Furthermore, as the landslide will continue to pose a threat of burying the 4(f) resource there would be missed opportunity to benefit the historic property.

Addressing the purpose and need of the project with a new design would still impact the 4(f) property. Due to the difficult nature of the problem at milepost 156.70, ITD hired a world renowned engineering consulting firm that specializes in landslide remediation. Three repair options were considered: 1) Construct a rockfill buttress immediately adjacent to the roadway; 2) Construct a tieback wall immediately adjacent to the roadway, and; 3) Construct a toe berm with native rock and vegetation at the base of the slide area, and re-grade and re-vegetate the hill-slope between the toe and the roadway. The proposed project pursues the third option.

After investigating the situation on site, the engineering firm determined the first option (rockfill buttress) had the serious risk of triggering movement of the existing highway and an upper slide mass during excavation. The excavation would be done in small stages to reduce the risk of undermining the roadway so the first stage would remove the upper twenty feet and then each excavation would be lowered by twenty feet increments with

ITD Key No. 19171 – SH-75, Galena Summit Slide Milepost 156.7, Blaine County

concurrent backfill taking place, but the result is that the lower slide mass remains unstable and would eventually wipe out sections of the Sawtooth Park Highway/Old Hwy 93 in an uncontrolled manner. This would be substantial missed opportunity to benefit a Section 4(f) property. While there is no use of the 4(f) resource, this option poses a unique engineering and safety problem, and does not address the purpose and need (slide hazard reduction) of the project.

The engineering firm determined that the second option (tieback wall) had the serious disadvantage of that the lower slide mass would be marginally stable. The tieback wall would be reinforced at 40 feet deep with an exposed wall face of 30' high. There is a risk of irreparable structural damage if slide forces exceed predicted amounts. This is a unique engineering problem where supplemental geotechnical investigation is needed to characterize the upper slide geometry for design. The result is that the lower slide mass remains unstable and would eventually wipe out sections of the Sawtooth Park Highway/Old Hwy 93 in an uncontrolled manner. This would be substantial missed opportunity to benefit a Section 4(f) property. While there is no use of the 4(f) resource, this poses a substantially increased transportation facility cost. This option also poses a unique engineering and safety problem, and does not address the purpose and need (slide hazard reduction) of the project.

The engineering firm determined that the third option (toe berm) has the following advantages:

- provides long-term lateral support to the slide mass, which will improve highway stability;
- does not require a highway detour during construction;
- uses excavated materials from nearby cuts which is efficient and cost-effective;
- does not require removal of highway toe support and therefore poses minimal risk, and;
- provides the opportunity to re-grade the rocky slope.

Option 3 was selected as the preferred alternative after considering the environmental impacts, safety problems, traffic services, costs, and purpose and need of the project.

Alternative 3: Alternative on New Location

It is not feasible and prudent to avoid Section 4(f) lands by constructing a new alignment because the costs and impacts would be substantial. The alternative alignments in any direction would cause additional engineering and construction difficulties. The alternative alignments through mountainous terrain would also increase the costs and environmental impacts due to realigning the roadway to match into the highway at a different location. Excavating a portion of the mountain to move the highway away from the precipice may destabilize the landslide area more quickly. There is no available detour route if the existing SH-75 alignment is not kept open during construction. The detour route on a paved road between Ketchum and Stanley would be over 100 miles long. There is no detour route available on unimproved dirt roads in this mountainous area. Mountainous terrain lies immediately to the south and east of the landslide site, and to the north and west of the landslide site. The preferred solution for the existing alignment causes less environmental impacts than realigning the roadway to match a new location to avoid the landslide. A new alignment would also have significant impacts (design, right-of-way acquisition from the Sawtooth National Recreation Area, construction, etc.). These impacts and difficulties would be truly unusual, unique and of extraordinary magnitude when compared with the proposed use of Section 4(f) property after taking into account measures to minimize harm and mitigate for adverse uses, and enhance the functions and value of the Section 4(f) property.

Measures to Minimize Harm and Mitigation:

In order to minimize harm to the Sawtooth Park Highway/Old Hwy 93, the project will avoid using 0.2 miles of the 4(f) resource as a material source. Instead, additional materials will need to be hauled from approved sources to assure adequate weight to counter balance the landslide. Option 3 was selected as it had the most benefit in the long term and fewest impacts to the Section 4(f) property.

In addition, mitigation proposed and agreed to, including:

- Within two (2) years of filing the signed agreement with the ACHP, ITD will oversee the separation of the Idaho Historic Sites Inventory (IHSI) form for the Galena Toll Road, Sawtooth Park Highway/Old Highway 93, and SH-75 within Blaine County, Idaho. Each resource, all currently under the IHSI 13-16171, will receive a separate site form and site number. SHPO will review and comment on the site form prior to final submittal. Within three (3) years of filing the signed agreement with the ACHP, ITD will oversee the development of a historic context on the history of transportation modes and routes (from pre-contact trails to modern highways) near and over the Galena Summit. The final document will be provided to the Idaho State Historical Society, Sawtooth National Forest, Blaine County Historical Museum, public schools, and public libraries in Blaine County.

ITD Key No. 19171 – SH-75, Galena Summit Slide Milepost 156.7, Blaine County

- Within four (4) years of filing the signed agreement with the ACHP, ITD will oversee the development, production, and installation of one (1) interpretive panel that interprets the history of the transportation in the Galena Summit area. Draft content and design will be reviewed by the Idaho SHPO, Sawtooth National Forest, and Blaine County Historical Museum prior to fabrication, and will be installed at or near the Alexander Ross Turnout, at or near milepost 160.90, or in a location easily accessible and open to the public.
- Within four (4) years of filing the signed agreement with the ACHP, ITD will oversee the production of an ESRI Story Map on the history of transportation modes and routes (from pre-contact trails to modern highways) near and over the Galena Summit. The link to the Story Map shall be made public and provided to the Idaho State Historical Society, Sawtooth National Forest, Blaine County Historical Museum, Blaine County, public schools, and public libraries in Blaine County.
- When reconnecting the portion of the trail buried as a result of the undertaking, ITD will match the existing character of the trail (i.e. width, materials, landscaping, and grade).

The above measures to minimize harm and mitigate result in an overall enhancement to the Section 4(f) property when compared to the Do Nothing alternative and the present condition of the Section 4(f) property, considering the activities, features, and attributes that qualify the Sawtooth Park Highway/Old Hwy 93 for listing in the NRHP.

Coordination / Public Involvement:

Letters were sent to stakeholders in Blaine and Custer counties, property owners and lease holder within the boundaries of the Sawtooth National Recreation Area, Federal and State agencies, and Idaho tribal councils. A total of 267 invitation letters were sent on Sept. 19, 2017. Meeting notices were published twice as a legal display advertisement in *The Idaho Mountain Express* (Ketchum, Idaho) on Oct. 4 & 6, 2017, and in the *Challis Messenger* on Oct. 5, 2017. A news release was issued to the local news outlets, was published in the *Idaho Mountain Express*, *Challis Messenger* and *The Times-News* (Twin Falls, Idaho) and was broadcast on KMVT-TV (Twin Falls, Idaho). Flyers were posted in 20 public locations within the cities of Hailey, Ketchum, and Stanley as well as the Smiley Creek area. Public Open House Meetings were held on October 10th & 11th, 2017 at Ketchum City Hall Council Chambers in Ketchum ID and at the Stanley Community Center, Stanley ID. Attendees included representatives from Federal Highway Administration, the Sawtooth National Forest, and the mayor for the City of Stanley.

Information presented at the meeting included information and drawings about the active landslide, preliminary toe berm design information, description of the through-cut proposal, environmental impacts of the work, and anticipated impact to travelers. As a result of project actions, impact to the Sawtooth Park Highway/Old Hwy 93 will result in Adverse Effect to the resource. Fact sheets were available to attendees in English and Spanish. A Spanish-speaking translator was at the Ketchum meeting. There were no written comments received at the meetings, but verbal comments about additional public outreach, hours for possible closures, and access for emergency vehicles were provided. General support for the project was voiced by attendees. The only negative comments received were regarding how to better engage local citizens but not directed toward the proposed project actions.

The ITD has also been consulting with the Idaho SHPO, the official with jurisdiction over the Section 4(f) property, as well as interested parties including the SNRA, Blaine County Commissioners, and Blaine County Historical Museum. All interested parties have agreed to the Section 106 MOA mitigation.

Summary / Approval:

The Alternatives set forth in the Avoidance Alternatives and Findings section of this Programmatic Section 4(f) Net Benefit Evaluation have been fully evaluated and the findings made clearly applicable to this project. The findings conclude that the proposed action is the only feasible and prudent alternative and results in a clear net benefit to the Sawtooth Park Highway/Old Hwy 93. The project complies with the "Measures to Minimize Harm and Mitigation" section of this document and such measures will be incorporated.

The proposed project meets the requirements of 23 CFR 774 for a Net Benefit Programmatic Section 4(f) finding.

7/3/18

Wendy Terlizzi, Environmental Section Manager
Idaho Transportation Department

Date



IDAHO STATE
**HISTORICAL
SOCIETY**

22 June 2018

Peter Hartman
Division Administrator
FHWA Idaho Division Office
3050 Lakeharbor Lane #126
Boise, Idaho 83703

Re: Project# A019(171) / ITD Key# 19171 / SHPO# 2017-952

Dear Mr. Hartman:

The Idaho State Historic Preservation Office is in receipt of the signed memorandum of agreement to resolve adverse effects to the Galena Toll Road and Sawtooth Park Highway/Old Highway 93 as a result of the proposed Galena Summit slide repairs pursuant to Section 106 of the National Historic Preservation Act. We understand that an additional Section 4(f) analysis was conducted by the Idaho Transportation Department that included a net benefit evaluation. As the official with jurisdiction over the Section 4(f) property (Sawtooth Park Highway/Old Highway 93), we concur with the assessment of impacts, the proposed measures to minimize harm, as well as the mitigation agreed upon by our office, ITD, FHWA, Sawtooth National Forest, the Blaine County Historical Museum and the Blaine County Commissioners to preserve, rehabilitate, and enhance the Section 4(f) property. We further concur that such measures will result in a net benefit to the Sawtooth Park Highway/Old Highway 93.

We look forward to working with the aforementioned consulting parties to resolve these adverse effects and work toward an enhancement of the historic property. If you have any questions, please contact me via phone or email at 208.488.7468 or matt.halitsky@ishs.idaho.gov.

Sincerely,

Matthew Halitsky, AICP
Historic Preservation Review Officer
Idaho State Historic Preservation Office



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