BANKS-LOWMAN
Rockfall Hazard Mitigation Project
PHASE2

WELCOME

to the

Banks-Lowman Rockfall Hazard Mitigation Phase 2 Project

Public Meeting

Open House 5:00 - 7:00 pm
(Presentation at 5:30 pm)

Please take this opportunity to learn more about the project. Project team members are available to answer any questions, get your comments, or discuss any concerns.

THANK YOU
for taking the time to get involved.

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA
COUNTY OF BOISE
IDAHO TRANSPORTATION DEPARTMENT
ATKINS
SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

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Project Overview

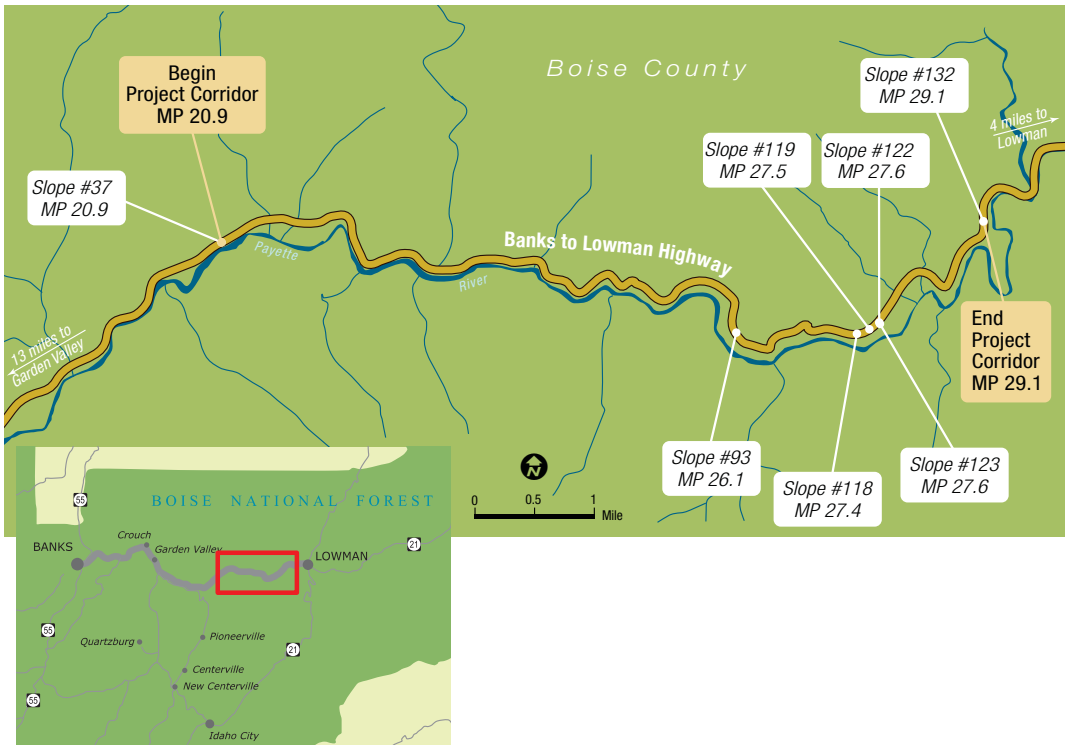
The Banks-Lowman Highway, an approximate 33-mile corridor, runs along the South Fork Payette River between the communities of Banks and Lowman in Idaho, located 45 miles north of Boise. The highway connects State Highway 55 near Banks on the west to State Highway 21 at Lowman on the east. The highway was designated as the Wildlife Canyon Scenic Byway, a state scenic byway, in 1999.

The Western Federal Lands Highway Division (WFLHD), Idaho Transportation Department (ITD), and Boise County are planning to mitigate the rockfall along the corridor.

Work completed to date:

- Applied the Rockfall Hazard Rating System (RHRS) to 164 existing slopes, 13 slopes were rated in "very high" receiving priority for mitigation funding
- Phase 1 – Categorical exclusion environmental document and construction package for slopes 89, 100, 112, and 113 (scheduled for construction in summer 2013)

Phase 2 will include slopes 37, 93, 118, 119, 122, 123, and 132.



Project Criteria

A draft concept study was completed in November 2012 to evaluate mitigation methods for slopes 93, 118, 119, 122, and 123. (Slopes 37 and 132 were designed in Phase 1)

To identify alternatives that best meet the needs of the project, the following criteria were used:

- Meet the aesthetic requirements for the forest service and corridor plans
- Rockfall catchment of 90% or greater
- Minimize/avoid rockfall in the river
- Maintain traffic during construction
- Provide cost effective mitigation methods
- Reduce rockfall maintenance requirements

Screening Process

The process used to screen the range of initial alternatives included analysis of:

- Construction costs
- Life-cycle costs
- Rockfall hazard
- Risk reduction
- Constructability
- Impacts to the river
- Reclamation opportunities
- Aesthetic and visual assessments
- Maintenance

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Environmental Overview

- **Land Management**
  - Boise National Forest Land & Resource Management Plan (2010)
    - Context sensitive design and mitigation required to meet Visual Quality Objectives of plan
    - Project may require forest amendment to provide permanent rock debris disposal sites since project is within a management area with many roadless areas (Management Area 11)
    - South Fork Payette River is eligible for Wild & Scenic River designation
  - Wildlife Canyon Scenic Byway Corridor Management Plan (2004)
    - Points of Interest identified along or near corridor: River View Point, Timber Point, Hole-in-the-Wall Canyon View, and Pine Flats hot springs.
- **Threatened and Endangered Species**
  - Minimize potential impacts to bull trout and associated habitat in the South Fork Payette River
- **Recreation**
  - Ensure access and safety for recreational users on the river since area is highly used for fishing, kayaking, camping, and other outdoor activities

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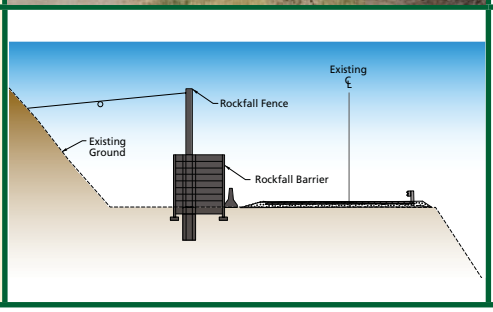
Project Mitigation Methods

Type		Picture	Description
Mesh	Draped mesh		Place loosely draped high strength wire mesh supported by a cable on surface. ■ ■
	Anchored mesh		Place high strength wire mesh to slope with rock bolts. ■ ■
Rockfall barrier and fence	Rockfall barrier walls		Construct wall at bottom of slope to catch debris. ■ ■
	Rockfall fence		Place extensible fence system that deflects at base of slopes to catch debris. ■ ■
	Rockfall barrier with fence (Hybrid)		Combine rockfall barrier and fence to catch debris. ■ ■

Recommended for continued screening ■ Slope 93 ■ Slopes 118, 119, 122, and 123

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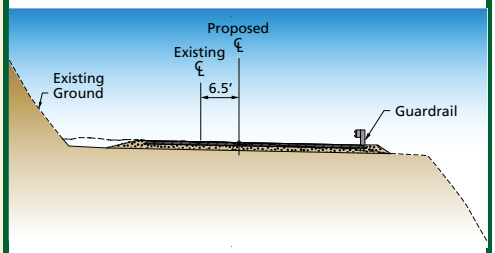
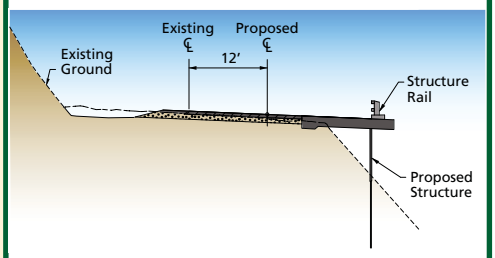
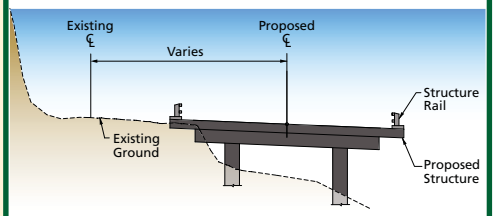
Project Mitigation Methods

Type		Picture	Description
Realignment	6.5′		Offset the existing road 6.5 feet towards downhill side to create additional ditch width for rock catchment and use existing pullout width, a proposed wall on downhill side may be required in some locations. ■ ■
	12′		Offset the existing road 12 feet towards downhill side to create additional ditch width for rock catchment and use existing pullouts if applicable. A proposed wall and structure on downhill side is required. ■
	Geometry Curve Correction		Offset existing road 30′-40′ towards downhill side to widen and and flatten curves to meet 45 mph design standards and provide rock catchment. A proposed structure on downhill side is required. ■

Recommended for continued screening ■ Slope 93 ■ Slopes 118, 119, 122, and 123

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Project Mitigation Methods

Type	Picture	Description
Rockfall sheds		Place shed over entire existing roadway.
Scaling		Remove loose material on a slope using manual or mechanical methods. ■ □
Rock bolting		Installing metal or fiberglass reinforcing bars into rock features. ■ □
Shotcrete		Install anchored shotcrete facing on slopes to prevent erosion and stabilize rock and slope features.
Slope geometry modification		Change the angle of the slope by flattening or adding benches.

Recommended for continued screening ■ Slope 93 □ Slopes 118, 119, 122, and 123

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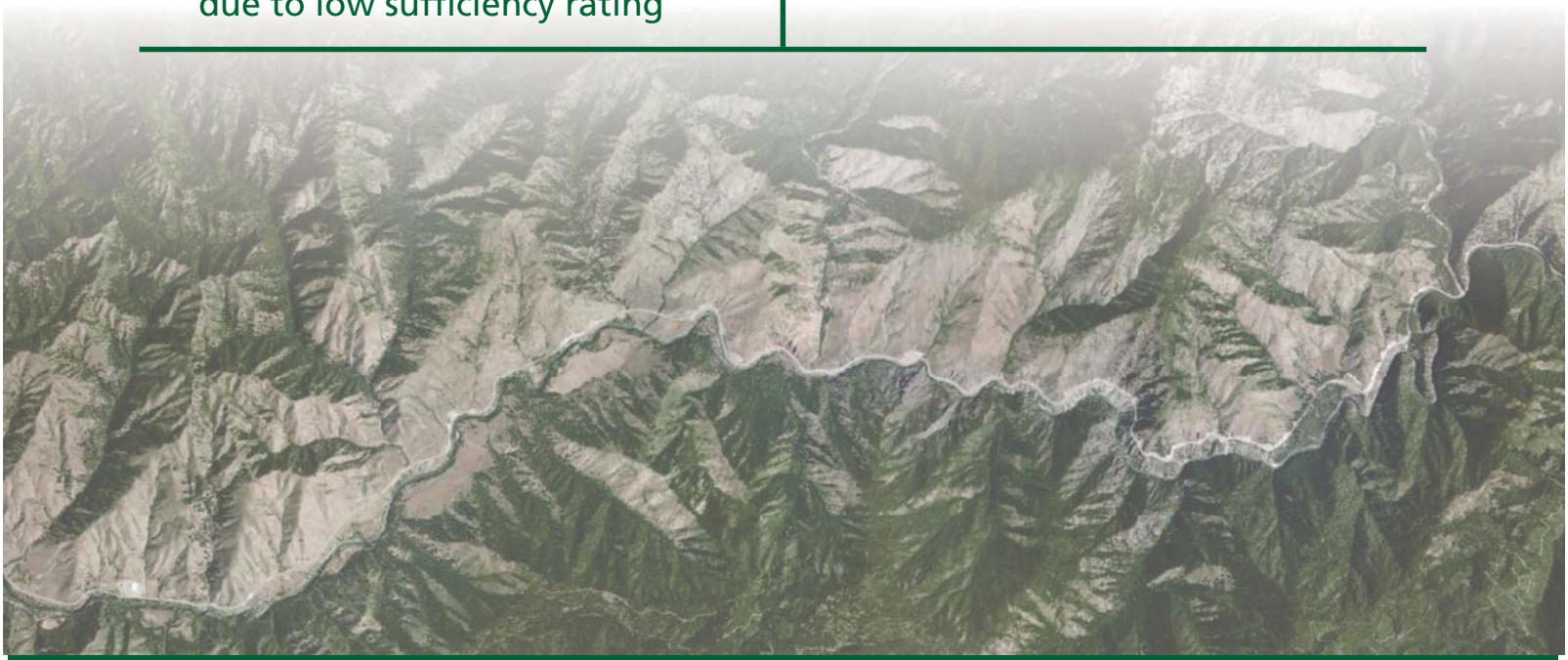
What Happens Next?

Milestone	Timeframe
Address comments from public meeting and stakeholders	January/February 2013
Preliminary design/environmental documentation	2013
Construction	2014

Other WFLHD projects in the Area	
Project	Timeframe
Rockfall mitigation Project - Phase 1 • Rock Scaling and Wire Mesh on Slopes	Summer 2013
Davey's Bridge Replacement • Replacing the Bridge structure due to low sufficiency rating	2012 - 2013



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How to Stay Involved

- Submit a comment form to the project team
- Checkout the website and join our online mailing list:

www.wfl.fhwa.dot.gov/projects/id/banks-lowman

- Mail or email your comments and questions to:

Banks-Lowman Rockfall Hazard Mitigation Phase 2 Project Team

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