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CLACKAMAS COUNTY BOARD OF COUNTY COMMISSIONERS

Policy Session Worksheet

Presentation Date: 08/02/16 **Approx Start Time:** 1:30 pm **Approx Length:** 30 minutes

Presentation Title: Lolo Pass Road Access Alternatives Analysis Report

Department: Transportation & Development

Presenters: Karen Buehrig, Transportation Planning Supervisor;
Stephen Williams, Principal Transportation Planner

Other Invitees: Barbara Cartmill, DTD Director; Mike Bezner, DTD Assistant Director;
Randy Harmon, Transportation Operations Manager; Jay Wilson,
Disaster Management Strategic Program Coordinator

WHAT ACTION ARE YOU REQUESTING FROM THE BOARD?

Direction on next actions to be taken to plan or develop alternatives to the existing Lolo Pass Road that reduce the risk of loss of sections of the road due to flooding by Sandy River.

EXECUTIVE SUMMARY:

Lolo Pass Road is the only access to the Zig Zag Village area and the primary access to the Zig Zag District of the Mt. Hood National Forest. The road is in an area on the side of Mt. Hood that is geologically unstable. In the last 100 years the upper Sandy River adjacent to Lolo Pass Road has experienced several major flood events that have resulted in bank erosion, damage to the road and loss of private property, the most recent being in January 2011. After each of these events Clackamas County has repaired or replaced the infrastructure and restored use of Lolo Pass Road. Although it would be preferable to identify an alternative that eliminates the risks of flood damage and loss of access, that cannot be done at this time. Sandy River is a young river that is still in the process of establishing its permanent channel. While that process continues the river will be extremely unpredictable, with each flood a unique event resulting changes in the river and damage to Lolo Pass Road and surrounding properties. Due to this unpredictability, at this time it is not possible to identify an alternative that eliminates all risk

The Lolo Pass Road Access Alternatives Analysis was carried out by Federal Highway Western Federal Lands Highway Division and Clackamas County using Federal Lands Access Program (FLAP) grant funds to identify and evaluate options for safe, long-term access to the Mt. Hood National Forest (MHNF) and private properties. Attached to this worksheet is a summary of the analysis and alternatives described in the full project report. The full report can be found at <http://www.clackamas.us/transportation/lolopass.html>.

Conclusions:

The study identified the five locations where Lolo Pass Road is most vulnerable to damage from flooding and channel migration by the Sandy River. Those locations are shown on attached **Figure #1**.

Four alternative improvements were considered in the study. Attached **Figure #2** shows the four alternatives overlaid on a map of identified geologic hazards. The following table compares the four alternatives:

	East Barlow Trail Road Alternative (Options A & B)	Modify Existing Lolo Pass Road Alternative	Zig Zag Mountain West Alternative	Zig Zag Mountain East Alternative
Vulnerable Locations Avoided	#3, #4 and #5 (Option B)	None	#3, #4 and #5	#2, #3, #4 and #5
Improvements to Existing Lolo Pass Road?	Yes – new Sandy River bridge and 1 or 2 riverbank reinforcements	Yes – new Sandy River bridge and three riverbank reinforcements	One riverbank reinforcement south of Autumn Lane	No
Length of New/Improved Roadway	Option A: 0.9 mile Option B: 1.4 mile	0.6 mile	1.6 mile	1.7 mile
Bridge Length	Sandy River Bridge: 400 feet Option A - Clear Creek Bridge: 175 ft Option B – Clear Creek Bridge: 300 ft	Two 200 ft bridges at existing crossings	800 ft, four span bridge at new location	800 ft, four span bridge at new location
Right of Way (# of parcels impacted, # of potential displacements)	17-26 parcels impacted 2-5 residential displacements	10-18 parcels impacted 4-5 residential displacements	12-22 parcels impacted 1-2 residential displacements	25-26 parcels impacted 1-2 residential displacements
New Road Footprint (acres)	Option A: 8.6 acres Option B: 11.2 acres	5 acres	23 acres	25 acres
Planning-level Estimated Construction Cost	Option A: \$18.1 mil Option B: \$20.2 mil	\$12.8 mil	\$24.7 mil	\$27.2 m

Based on the analysis of the alternatives staff has reached the following conclusions about the studied alternatives:

- Zig Zag Mountain East alternative does the best job of reducing the risk of flood damage and loss of access, but is very expensive (approximately \$27.2 million), would take 10 to 15 years to develop, and would have significant impact on private property.
- Zig Zag Mountain West alternative would provide somewhat less reduction in the risk of flood and loss of access and is slightly less expensive to develop than the previous alternative but would still take 10 to 15 years to develop and have similar impacts to private property.
- The Barlow Trail Road Alternative does not provide the risk reduction of Zig Zag Mountain East or west, but is less expensive and could be developed in phases. This alternative is also the best at balancing reduction in risk with maintaining private property access. However, the construction cost would still be between \$18.1 and \$20.2 million.
- The Modified Lolo Pass Road does not provide a sufficient risk reduction to justify expenditure of \$12.8 million, or the property impacts and displacements necessary to develop this alternative.

None of the studied alternatives result in a substantial mitigation of the risk to Lolo Pass Road and could be built in a reasonable period of time at a reasonable cost. As a result, starting the project development process does not appear to be warranted at this time.

FINANCIAL IMPLICATIONS (current year and ongoing):

If the BCC accepts the staff recommendation, this report concludes the study process and no further investment is necessary.

STRATEGIC PLAN ALIGNMENT:

- How does this item align with your Department’s Strategic Business Plan goals?
The study supports county decision makers so they can plan and invest based on a coordinated set of goals and policies
- How does this item align with the County’s Performance Clackamas goals?
This item aligns with the Strategic Priorities of (1) Building strong infrastructure, and (2) Ensuring safe, healthy and secure communities.

LEGAL/POLICY REQUIREMENTS:

No legal or policy actions are required at this time.

PUBLIC/GOVERNMENTAL PARTICIPATION:

Primary public involvement for the Lolo Pass Road Access Alternative Analysis took place through two Stakeholder Working Group Meetings held on November 20, 2014 and October 5, 2015 at the Resort at the Mountain in Welches. The agendas and meeting summaries for both meetings are attached.

OPTIONS:

1. Take no action
2. Add a planning project into the 20 year Capital Improvement Program to begin the environmental and engineering studies that precede the development of an improvement.

RECOMMENDATION:

Staff respectfully recommends Option #1.

ATTACHMENTS:

1. Figure #1 – Study area and Vulnerable Locations
2. Figure #2 – Alignment Alternatives and Geologic Hazards
3. Meeting Summaries from the Stakeholder Working Group meetings on November 20, 2014 and October 5, 2015

SUBMITTED BY:

Division Director/Head Approval _____

Department Director/Head Approval _____

County Administrator Approval _____

For information on this issue or copies of attachments, please contact

Karen Buehrig, Transportation Planning Supervisor @ 503-742-4683.

Figure #1: Study Area and Vulnerable Locations

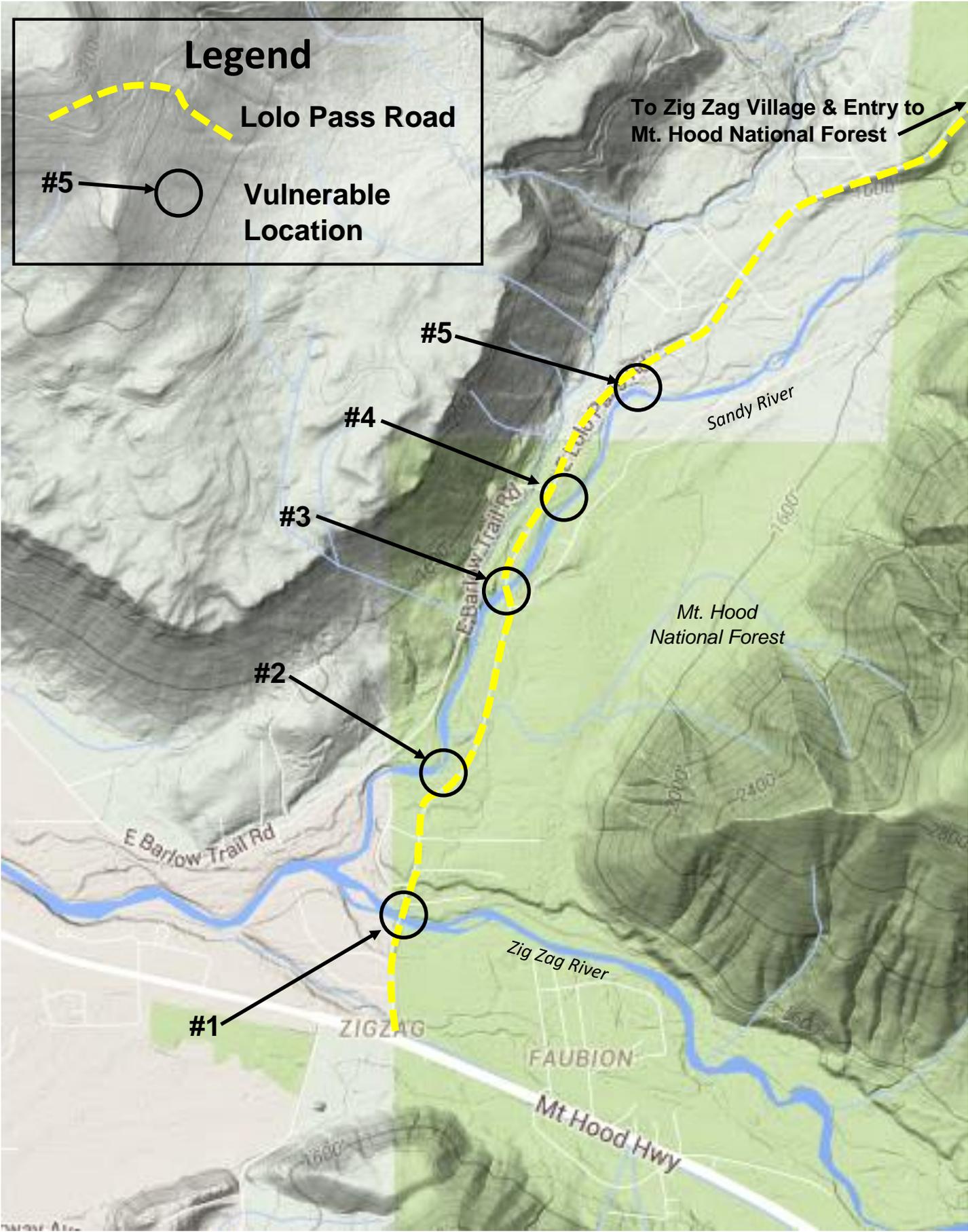
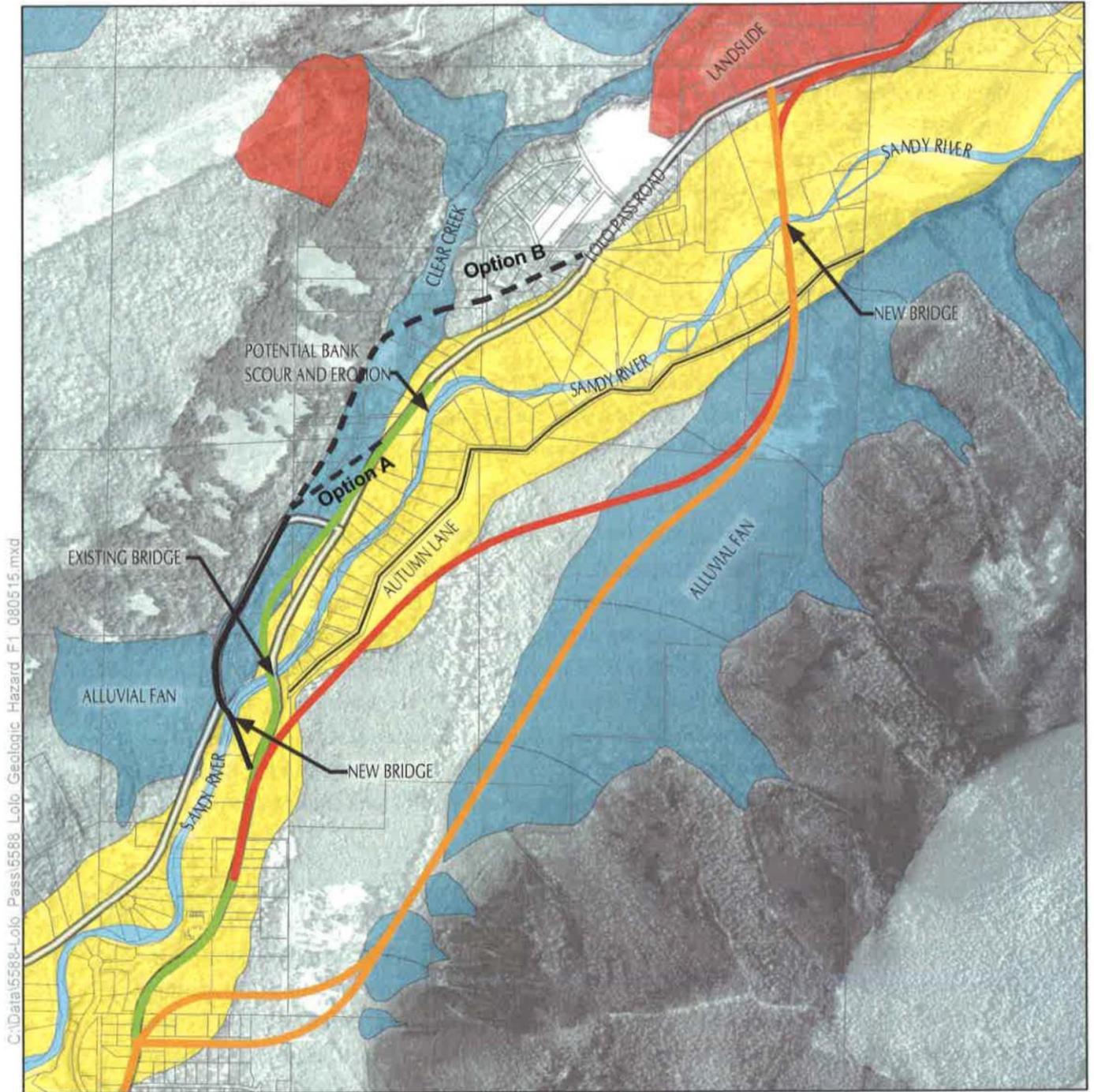


Figure #2: Alignment Alternatives and Geologic Hazards



C:\Data\5588-Lolo Pass\5588 Lolo Geologic Hazard F1_080515.mxd

- | ALIGNMENT ALTERNATIVES | GEOLOGIC HAZARD |
|------------------------|-----------------|
| MODIFY LOLO PASS ROAD | ALLUVIAL FAN |
| ZIG ZAG MOUNTAIN WEST | LANDSLIDE |
| ZIG ZAG MOUNTAIN EAST | DEBRIS FLOW |
| BARLOW TRAIL ROAD | |



GRI DAVID EVANS AND ASSOCIATES, INC.
LOLO PASS ROAD ACCESS ALTERNATIVES

GEOLOGIC HAZARD MAP



Lolo Pass Road Access Alternatives Analysis Study

Stakeholder Working Group

Meeting Agenda

Thursday November 20th 2014
4:00 PM to 6:00 PM

Hoodland Rural Fire Department
69634 Highway 26
Welches OR 97076

Meeting Purpose: Provide stakeholders with an overview of the Lolo Pass Alternatives Analysis Project and an understanding of the project schedule and products, as well as an opportunity to ask questions and discuss the project

4:00 – 4:15	Welcome and Introductions <ul style="list-style-type: none">• Stakeholder Working Group• Project Staff / Technical Working Group	Larry Conrad
4:15 – 4:30	Project Overview and Timeline <ul style="list-style-type: none">• Report Review and Recommendations• Future Meetings and Open Houses	Larry Conrad
4:30 – 5:30	<i>2014 Reconnaissance Report</i> <ul style="list-style-type: none">• Project Study Area• Report Overview• Project Analysis Corridors• Draft Project Evaluation Criteria	Larry Conrad
5:30 – 5:45	Discussion	All
5:45 - 5:50	Public comment	
5:50 – 6:00	Next Steps <ul style="list-style-type: none">• Draft Alternatives Analysis• Open House	Larry Conrad



Lolo Pass Road Access Alternatives Analysis Study

Stakeholder Working Group Meeting

4-6 p.m., Nov. 20, 2014

Hoodland Fire Department, 69634 Highway 26, Welches, OR

Meeting Summary

ATTENDANCE

SWG members: Dean Payne, Chris Bentley, Pat Tritico, Ron McPherson, Steve Wise, Maria Slater, Bob Reeves, Don Mench, Blythe Creek

Staff: Larry Conrad and Ellen Rogalin, Clackamas County; Mike Odom, Western Federal Lands Highway Division

Larry Conrad welcomed everyone and people introduced themselves. Mike reminded the group that the purpose of the study is to provide information on options and what further study is needed, not to provide a specific recommendation.

Reconnaissance Report

Larry reviewed the project timeline and asked for comments on the Reconnaissance Report. Comments and discussion followed.

- One of the problems with the power line road option is that it's so close to the Bull Run / PDX Water Bureau. There are also geological and environmental challenges.
- The report should be clear that Forest Service road (NF-18) is closed during the winter, usually from December to March or April.
- Clackamas County only maintains the portion of Lolo Pass Road that is a County Road. This segment is located south of the National Forest boundary.
- The power line road is the point of least resistance for emergencies, but it's not a good route for general use as it is currently only passable with an all-wheel drive vehicle.
- There is a need for emergency access options in the area, which vary depending on where the flooding is located.
- Some Forest Service roads are in very good shape anymore. The Forest Services is analyzing its transportation system. More information is available on the Mt. Hood National Forest website at <http://www.fs.usda.gov/detail/mthood/home/?cid=STELPRD3818668>.
- Even if a new road is alignment is chosen and built, the existing Lolo Pass alignment should be maintained as a local road.
- It's important to compare the channel migration hazard maps with maps of the route alternatives.

- Lolo Pass Road seems fairly safe from Zig Zag Village up; but there are problems below Zig Zag Village.
- The river channel migration zone is quite wide, which results in many areas of flooding or potential flooding.
- Is there a chance Lolo Pass Road would actually be relocated? [Yes, this is a possible outcome of this project. If this occurs, the existing road will remain to serve residents.]
- Any flooding along Barlow Trail Road is still a problem because it also crosses the Sandy River. If a flood were to cut Barlow Trail Road, the traffic level on Lolo Pass Road could double depending on where the problem occurred. An additional bridge would be good to address this problem.
- It might be more cost-effective to do a really good job with the current Lolo Pass Road rather than build a new one. It was noted that the County has already done almost everything it can with the current road.
- The stream bank restoration work that the Corps of Engineers did after the 1964 flood has been unwinding ever since and the river is finding its own channel again. Getting the Lolo Pass Road away from the river is a good idea. It's amazing the bridges are still there.
- Look seriously at Zigzag Mountain Alternatives - Alignment #2
- We're emphasizing bicycle tourism in the area and there's already a fair amount of bike pedestrian traffic. Make sure any new roadway provides room for this.
- Be cautious about using the names of any current residential streets in the names of possible options for new roads.
- It would be great if we could build in a wildlife corridor crossing -- there's a lot of wildlife movement in this area.

Evaluation Criteria

The group reviewed the proposed evaluation criteria and made the following comments.

- In the environmental section, consider future restoration projects along river thoroughfares as well as current biological resources. The future plans are documented in the Zig Zag River analysis and Sandy River analysis in the 90s for wild and scenic river status. There's also a restoration plan analysis.
- Also consider future pipelines and infrastructure, as well as current. Check the public utilities. Zig Zag Village has sewer and water lines that go under Lolo Pass Road.

Wrap-Up

Ellen mentioned that there will be public outreach activities in spring 2015 and people on the committee will be asked to help spread information about the project.

Larry thanked everyone for attending. Members of the group thanked the County for involving them in the project at this early stage and for asking for input.



Lolo Pass Road Access Alternatives Analysis Study

Stakeholder Working Group (SWG)

Meeting Agenda

Monday October 5, 2015
4:00 PM to 6:00 PM

Lolo Pass Room
Resort at the Mountain
68010 E Fairway Ave, Welches, OR 97067

Meeting Purpose: Provide SWG members with an overview of the Draft Lolo Pass Alternatives Analysis Report and receive input on the draft report.

4:00 – 4:15	Welcome and Meeting Purpose <ul style="list-style-type: none">• Introductions• Future Meetings and Open Houses	Karen Buehrig
4:10-4:20	Project Overview <ul style="list-style-type: none">• Background	Scott Richman
4:20 – 5:00	<i>Draft Alternatives Analysis Report</i> <ul style="list-style-type: none">• Project Study Area• Alternatives• Cost Estimates• Evaluation Criteria	Scott Richman
5:00 – 5:45	Discussion and Input	All
5:45 – 6:00	Next Steps <ul style="list-style-type: none">• Open House – Flood of Information – October 24th	Karen Buehrig

MEETING SUMMARY NOTES

Access Alternatives Team Meeting
Lolo Pass Road Access Alternatives Study
Monday, October 5, 4 pm – 6 pm
Resort on the Mountain, Lolo Pass Room
Welches, Oregon

Attendees:

Western Federal Lands Highway Division

Mike Odom

Clackamas County

Karen Buehrig

Joel Howie

Ellen Rogalin

Kath Rose

David Evans and Associates, Inc. (DEA)

Mara Krinke

Scott Richman

Terry Stones

Natural Systems Design

Shawn Higgins

Stakeholders

Ron McPherson, lives on Autumn Lane

Susan and Tracy Wagner

Steve Wise, Sandy River Basin Watershed
Council

Ken Everett (rep. DeShazer Farms)

Bob Reeves, Chamber of Commerce/Fire
District

Summary of Presentation

County and consultant staff made a presentation summarizing the Alternatives Analysis Report, including development of conceptual alternatives and findings. After the presentation, Karen Buehrig facilitated a discussion with the stakeholder group.

Questions and Discussion

Ron McPherson asked why the team hasn't picked just one alternative, and that he was surprised to see we are still looking at 3-4 different routes. Karen and Mike Odom (WFLHD) responded that since this is still a high-level planning study, we aren't looking to drop any alternatives yet,

but rather give the county commissioners some idea of the tradeoffs of different approaches, including doing nothing. If the commissioners decide to pursue a capital investment option, additional regulatory requirements would apply. For example, the project would trigger the NEPA process, which would re-open the study to all of these alternatives, plus others that could be developed through additional study.

Ron then asked about the timing of any future work, and wondered why the government would choose to spend \$30+ million to service 200 people. Karen responded that we need to better define how this project fits in to the context of the Sandy River watershed, and into the need for infrastructure investment as a whole. The purpose of this study is to give us information on what it might take to improve conditions, if the County didn't want to continually repair the road after each damaging event.

One stakeholder said that the local property owners already have a "cloud over their heads" and that this study adds another cloud. They asked that the County add a timeline to the study (and website), so people understand the project isn't imminent. The timeline could start from a funding commitment.

Steve Wise from the Sandy River Basin Watershed Council suggested the team compare the 30-year costs of doing nothing (assuming a certain number of washouts) against the cost of building something new (or improving conditions in-place). What is the return on investment for capital expenditures?

On a similar note, Steve posed the question of what are smartest investments / identified priorities in the Sandy River basin (including but not limited to this project area)? This question is being addressed by other on-going work in the county. One of the priority areas identified in the Sandy River Floodplain Study, for example, is one of the areas identified for riverbank armoring under the "Modify Existing" and "Zigzag Mountain West" alternatives.

Bob Reeves from the Fire District and Chamber of Commerce asked if the County would be able to rebuild in the same location if an emergency comes up, or if they would be restricted from doing so. Joel Howie from the County responded that if an event occurs, they would evaluate the options at that time. During the last event, they had some stumbling blocks with resource agencies, but ultimately FEMA covered 80-90% of the costs of repair, though there was a long lag in the reimbursement (multiple years).

Ken Everett rose some of the concerns held by the DeShazer family, including: access, fire hazard and liability associated with a new roadway, and dividing the property (especially the Zigzag Mountain East alternative). The main concern is their ability to continue managing the resource.

James Kennett, who owns 50 acres of forested property south of the DeShazers, echoed these concerns and said he is very concerned about fire hazards associated with vehicle travel through the property. He also commented that he'd think there would be fewer conflicts for the county if they worked on the existing, rather than opening up a new alternative through forest lands.

Autumn Lane residents asked how much we looked at the East Barlow Trail Road concept, and Mike Odom replied that the concept was just raised by agency staff last month and we haven't

taken it too far, but we will develop further, including getting better understanding of the river dynamics in that location.

Several attendees were interested in the development of a Plan B – something that could happen quickly, before a new roadway might be built. Plan B should include a strategy to pay for any future repairs and advance a solution.

Steve Wise from the Watershed Council suggested the team consider the economic impact beyond the residents using Lolo Pass Road for property access, for example the positive value of forest access and the associated social and economic benefits of the river corridor.

Karen asked the group to help the county with suggestions on how to improve participation and get better outreach to community.

Ellen encouraged stakeholders to attend the Board of County Commissioners meeting where they will make a decision regarding advancing more study on this corridor, and to communicate their preferences, concerns, and priorities directly to staff and the Commissioners.

Closing:

Karen asked the group to please send suggestions, corrections, or other comments directly to her, and she would pass them to the consultant team.

This study will be presented as part of the annual Flood of Information event to be held at Resort on the Mountain on Saturday October 24 (9 am – 12:30 pm).