2nd DECISION NOTICE
and
FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Bridge Creek and Buck Creek Subwatersheds Restoration Project

USDA Forest Service - Pacific Northwest Region
Fremont-Winema National Forests
Silver Lake Ranger District
Lake County, Oregon

SUMMARY
I have decided to implement the remaining portion of Alternative 3 from the Bridge Creek and Buck Creek Subwatersheds Restoration Project Environmental Assessment ("Bridge-Buck"). This includes approximately 2,200 acres of vegetative treatments designed to increase the resiliency of the area to withstand severe, uncharacteristic fires, as well to improve growth and protect stands from insects and disease. Due to some modifications to the Alternative, discussed later, the selected group of actions will be referred to as "Modified Alternative 3."

In April 2007, the major portion of Alternative 3 was selected by Richard N. Rine, Acting Forest Supervisor, for implementation, as "Modified Alternative 3." His decision included approximately 11,322 acres of vegetative treatments. As noted in the April 27, 2007 Decision Notice:

> *"At this time, approximately 85 percent of the area proposed for treatments has been field surveyed for the presence of heritage resources. These surveyed areas have received certification of compliance with Section 106 of the National Historic Preservation Act from the Forest Archeologist.....I am deferring decision on the 15 percent of the project areas that have not yet been surveyed (approximately 2,000 acres). It's expected that these areas will be field surveyed in 2007, and a decision pertaining to them will be included in a second decision notice during the 2007-2008 winter. All treatments within the remaining 15 percent have been analyzed as a part of Alternative 3 for their effects on wildlife, aquatic resources, soils, vegetation, etc."*

This decision ("2nd Decision") and FONSI incorporates the information and reasoning fully described in the April 27, 2007 decision. The April 27, 2007 decision can be found at:

http://www.fs.fed.us/r6/frewin/projects/analyses/bridgebuck

The actions I am now choosing for implementation pertain to the remaining fifteen percent of the acres of activities included in Alternative 3. In addition to the resiliency aspects cited above, these actions are also designed to provide wildlife habitat for a wide diversity of species, enhance riparian-dependent resource values, improve vegetative diversity, and provide forest products.

During the past century, many forests in the interior West have been transformed. In the project area, the vegetation transformation is characterized by forests changing from generally open stands that were dominated by larger, fire-resistant, trees, up to 600 years old, with grass/forb groundcover, to

dense stands that are characterized by smaller trees beneath residual large trees with a highly flammable bitterbrush/shrub component. The young trees that have grown beneath the residual large ponderosa pine provide a ladder for uncharacteristic fire to kill the large old trees.

This document presents details of my decision and reasons for the decision. The planning process documented in the EA, and the project planning record, will be summarized as needed to provide adequate context for fully describing the decision.

INTRODUCTION

The Bridge-Buck analysis area includes 34,123 acres within the Bridge Creek and Buck Creek Subwatersheds. This includes 30,189 acres of National Forest System lands within Township 23 South, Ranges 12 and 13 and Township 23 South, Ranges 12 and 13, Willamette Meridian. The area is centered approximately 12 miles southwest of Silver Lake, Oregon. An interdisciplinary team has completed an Environmental Assessment (EA) for this project.

Figure 1: Vicinity Map

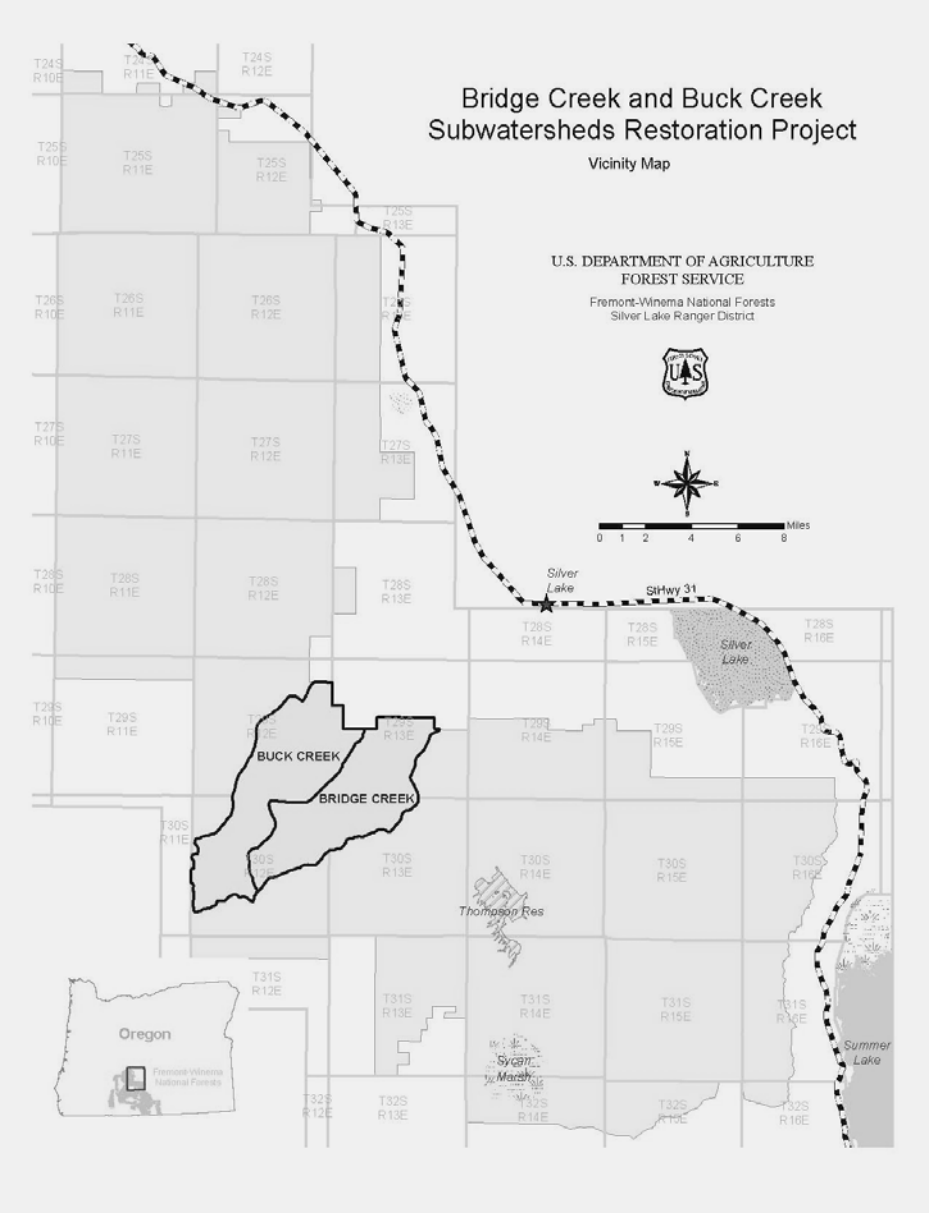
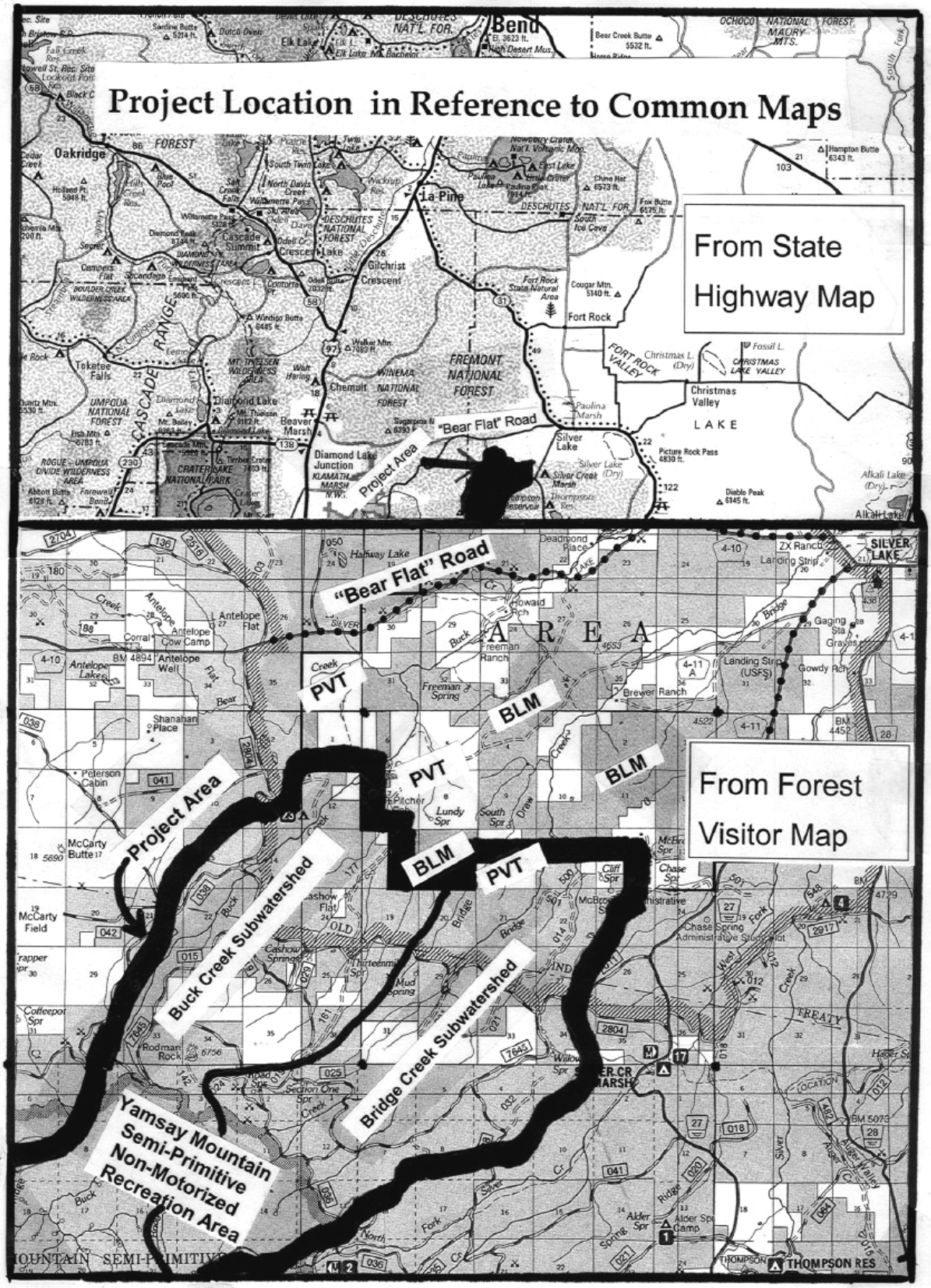


Figure 2: Project Location in Reference to Common Maps



Two watershed evaluations that cover major portions of the project area, with a varying emphasis, have been prepared during the past seven years. These include the 2003 "Silver Lake Watershed Analysis" (Silver Lake Community Watershed Council) and the (draft) 2007 "Bridge Creek and Buck Creek Subwatersheds - Ecosystem Analysis at the Watershed Scale."

The "Bridge/Buck" EA considers proposals for timber harvest, including small and medium diameter live and dead trees up to 20.9 inches dbh, post-harvest whipfelling, prescribed burning, juniper and ponderosa pine stringer thinning, plantation thinning, interplanting of ponderosa pine seedlings, riparian enhancement and stream improvement projects, and site-specific Fremont National Forest Land and Resource Management Plan (LRMP) Amendment #29. The amendment was adopted with the first Bridge/Buck Decision Notice. It locally reduces standards for mule deer cover and allows implementation of riparian enhancement actions (non-commercial thinning of encroaching conifers and juniper) on 475 acres of winter range and 140 acres of transition range. These acres would be converted from their current condition, which provides mule deer cover to a short term condition of non-cover.

Connected actions include pile burning, mechanical slash treatment, temporary road construction, road maintenance, and safety and operations tree felling. If trees greater than 20.9 inches dbh are cut for safety or operations reasons, they will be left on site to provide for additional down woody material unless they would be a safety or road maintenance issue. Temporary road construction and landing construction is expected to require minimal tree felling since none of the temporary road would be on previously unused routes.

Several alternatives were considered. Some were eliminated from a detailed analysis because they did not meet purpose of and need for the project. Three alternatives (including No Action) were analyzed in detail in the EA. The EA is available for review upon request at the Silver Lake Ranger District office in Silver Lake, Oregon or on the Fremont-Winema National Forest web site at:

http://www.fs.fed.us/r6/frewin/projects/analyses/bridgebuck/index.shtml

Alternative 3 addresses conditions that trace back over 100 years, while considering public input received during both the initial project scoping (May, 2006) and the 30-day comment period on the preliminary EA (February, 2007).

PURPOSE AND NEED

The general purposes of this project, consistent with the direction of the 1989 Fremont National Forest Land and Resource Management Plan (LRMP), are to promote the overall sustainability of vegetative systems and hydrologic function within the project planning area (the Bridge Creek and Buck Creek Subwatersheds). Specifically, the purposes are to:

- Increase the resiliency of late and old structure conifer stands (LOS) by reducing potential impacts from severe, uncharacteristic fires. Manipulate younger conifer structure in a manner that moves these stands toward a sustainable LOS condition. Control stocking level in order to improve growth and protect stands from fire, insects, and disease.
- Provide wildlife habitat for a wide diversity of species
- Restore hydrologic processes, including restoration and maintenance of riparian areas to conditions that enhance riparian-dependent resource values.

- Provide forest products as a by-product of meeting the above purposes.

There are four underlying needs for the project:

1. The need for *forest stands with structural conditions closer to the Historic Range of Variability (HRV)* within the project area.

2. The need for *wildlife habitat within the project area, including snags and down wood and live forest.*

3. The need for *high-quality fish and riparian habitat within the project area.*

4. The need for *commercially valuable timber from the project area*.

Each of these needs as they relate to existing and desired conditions in the project area is discussed in more detail in Chapter 1 of the EA (see EA pages 1-17 to 1-21 "*Relationship between Underlying Needs and Proposed Action*").

In brief, the Bridge Creek and Buck Creek Subwatersheds Restoration project is needed because the area is currently characterized by forests of ponderosa pine and mixed ponderosa pine/white fir with a vegetative composition and fuels profile that have been transformed to a non-sustainable condition. This is primarily as a result of aggressive fire suppression over the past century, amplified by timber harvest that focused on cutting the larger trees without sufficient tending of the residual stands of smaller trees. The area has been denied characteristic low intensity fire, resulting in substantial forest floor accumulations of brush and pine needles. The young trees that have grown beneath the residual large ponderosa pine now provide a ladder for uncharacteristic fire to kill the large old trees.

Currently many stands have experienced a substantial expansion of white fir and lodgepole pine. These stands are all at high risk of stress-related mortality, insect and disease-related mortality, and stand replacement wildfire. In the past few years, bark beetle populations and related mortality have been steadily increasing just adjacent to and at the edge of this planning area. The Toolbox Complex (2002) burned into a portion of this area, and increased insect mortality is developing in nearby areas.

The Bridge Creek and Buck Creek Subwatersheds currently represent the largest area of ponderosa pine forest that contains a substantial large tree component on the Silver Lake Ranger District. Other than 800 acres burned in 2002, no large scale, stand-replacement fire has occurred in these subwatersheds for over 100 years. Limited amounts of characteristic low intensity fire have been introduced recently. During the past 20 years, overstory removal/clearcut or shelterwood harvests have occurred in a scattered fashion over a very small portion of the National Forests System lands in the area.

PUBLIC INVOLVEMENT

The Klamath Tribes were initially made aware of the watershed analysis proposal when Tribal directors were contacted in May 2001 concerning the initiation of the Watershed Analysis. That analysis was substantially delayed by the 2002 Toolbox Fire Complex. However, by February 2006, an initial draft copy of the Watershed Analysis was provided to the Tribes Cultural and Heritage Resources Department and the Natural Resources Department.

Klamath Tribal directors were contacted on February 2, 2006 to initiate consultation on the Bridge Creek and Buck Creek Subwatersheds project. A draft proposed action and maps were distributed at that time. Once a specific set of management activities was formulated into a proposed action, initial public scoping occurred. A detailed proposed action was contained in a scoping packet that was mailed to the public and agencies for comment on May 12, 2006. The proposal was listed in four editions of the Schedule of Proposed Actions for the Fremont–Winema National Forests (spring 2006 through spring 2007).

On February 1, 2007, a fully-described proposed action and a preliminary version of the EA (often referred to in the project record as the "comment EA") were made available for a 30-day public comment period, which ended March 5, 2007. The Forest Service received four separate responses during the comment period: Mark Gaffney (2/3/07); ODFW - M.J. Hedrick (2/14/07); Klamath Tribes - R. Ward (3/5/07); and Oregon Wild/Klamath Siskiyou Wildlands Project - D. Heiken (2/28/07). Comment letters were read by the ID Team, other staff, the District Ranger and the Responsible Official. All comments were included in a content analysis process. This process compiled, categorized, and coded the full range of public viewpoints and concerns. The evaluation of the comments is summarized in Chapter 4 of the EA (Table 4-1) and fully documented in a lengthy tabular document entitled "2007_04_18_Response_to_Comments_Sec.1." This document is available on request from the project record or (without request) on the worldwide web at: http://www.fs.fed.us/r6/frewin/projects/analyses/bridgebuck/index.shtml

The 47 references cited in the comment letters were also individually evaluated. A list of citations from the comment letters is included in Chapter 4 (see *Literature Cited in Comment Letters*). A 25-page documentation of that evaluation (2007_03_24_Response_to_Comments_Sec.2_citations.doc) is available on request from the project record or (without request) on the worldwide web at: http://www.fs.fed.us/r6/frewin/projects/analyses/bridgebuck/index.shtml. The complete record of the public involvement process is available for review in the project file.

On March 30, 2007 members of my staff met with the Chair and a member of the Klamath Indian Game Commission (KIGC) to discuss the project. Three primary topics, as they related to the design of Alternative 3, were the focus of that meeting. While Alternative 3 was favored over Alternative 2 by the KIGC, they expressed concern over the amount of retention of bitterbrush and sagebrush, particularly on winter and transition ranges. They requested we increase our shrub retention design. As acknowledged in the project analysis, these shrubs are of critical importance as mule deer forage. We also discussed a need to stipulate an earlier start date for activity restriction near areas where mule deer fawning occurs (the proposal had used the dates May 1 to June 30 for this restriction). In addition, concern was expressed about the availability of travel and connectivity corridors that could be used by wildlife when traveling through the area, in light of the substantial amount of vegetative treatment included in Alternative 3.

On April 10, 2007 members of my staff met with the Klamath Tribes Wildlife Biologist to consider methods, in lieu of fire, that could be used on portions of the treatment areas to maintain and promote age-class diversity of forage shrubs for mule deer. The discussion focused on bitterbrush on winter and transition ranges. The first Bridge-Buck Decision Notice selected a Modified Alternative 3 that addressed these concerns on the approximate 85 percent of the total proposed project acres to which it pertained. Specifically these concerns were addressed in that first Decision Notice by:

1. Altering some of the prescriptions for treatment on Winter Range in order to **reduce the amount of** prescribed fire (as a final step in the sequence of treatments). Specifically the prescribed burning step was deleted from a 250 acre block in mule deer winter range.

2. Directing that areas on both Winter and Transition Ranges where the planned sequence of events in Alternative 3 includes use of fire **be evaluated** post-commercial harvest to **identify areas** where fire would not be used. Instead, following this evaluation, some areas will be identified where mechanical treatments will be the final step in the sequence of actions.

3. **Increasing** the mule deer **fawning seasonal restriction** by two weeks to include the dates April 15 through June 30.

DECISION and REASONS FOR THE DECISION

I have read the Bridge Buck EA and have determined that there is sufficient information to provide a reasoned decision. The analysis documented in the Bridge/Buck EA explores the necessity for action (or no-action) in relation to four identified needs. The analysis also weighs the relative success of the alternatives in achieving four identified purposes. Finally, my decision considers the public comments and the key issues raised by those comments. See pages 10-11 of this Decision Notice for a description of all alternatives considered. Based upon my review of all alternatives, **it is my decision to implement a similarly "Modified Alternative 3"** on the remainder of the project. My decision takes into consideration the manner in which each factor of the project purpose and need would be met by each of the alternatives and the manner in which each alternative responded to the key issues raised during the analysis.

I have selected Modified Alternative 3 because it achieves a balanced approach between actions that promote the long-term development of sustainable forest conditions in conjunction with recovery of commercial timber value, while retaining sufficient amounts of snag, down wood, cover, forage and other wildlife habitat components.

Alternative 3 was developed in response to the Key Issues of: 1.) Effects on wildlife habitat diversity, including mule deer habitat, 2.) Effects on Juniper ecosystems and the habitats they provide, and 3.) Implementation access and practicality.

In comparison to Alternative 2 or Alternative 3, Modified Alternative 3 provides greater overall vegetative diversity, emphasis on more harvest retention area, an overall increase in the acres of retention, retention designs that are specific to areas of juniper treatment, and additional retention of non-fire tolerant shrubs. Modified Alternative 3 has substantially less proposed riparian/meadow enhancement activity for locations within the Yamsay Mountain Semi-Primitive Non-Motorized Recreation Area, than Alternative 2. Unfortunately, the logistics and expected expense of implementing activities that would be up to 6 miles from the nearest open road and 3 miles from the nearest maintained trail mean that implementing these projects would inevitably detract from the ability to fund much needed vegetative restoration in the lower two-thirds of the planning area.

The discussions of reasons for selecting Modified Alternative 3 that are detailed in the April 27, 2007 Decision Notice (pages 21-25) are also applicable for this decision on the remaining 15 percent of Alternative 3.

The modifications I have included in Alternative 3 are a result of input received from the KIGC and the April 10 input received from the Klamath Tribes Wildlife Biologist. Areas on both winter and transition ranges, where the planned sequence of events in Alternative 3 is stated as "Harvest/ (with Post Activity Fuels Treatments)/Burn," will be evaluated post-commercial harvest to identify areas where fire will not be used. Instead, following this evaluation, some areas will be identified where mechanical treatments will be the final step in the sequence of actions. As a result, there will be portions of the "Harvest/ (with Post Activity Fuels Treatments)/Burn" where that sequence will indeed occur. But there will also be areas, identified as "Harvest/ (with Post Activity Fuels Treatments)/Burn" where the use of slashbusters or mowers will achieve the post-commercial harvest objectives, not only silviculturally, but also in terms of the fuels treatment. Such areas were analyzed in the EA as having post harvest activity that included whip-felling, followed by slashbusting or roller chopping, followed by landscape application of prescribed fire.

As in the first Bridge-Buck Decision Notice, I have increased the mule deer fawning seasonal restriction by two weeks to now include the dates April 15 through June 30.

Implementation of Modified Alternative 3 will include the full list of mitigation and resource protection measures analyzed for Alternative 3 as described in the EA (pages 2-12 to 2-25) and in the April 27, 2007 Decision Notice (pages 15-19). Monitoring, both during implementation and after, as described in the EA (pages 2-25 to 2-26), will also occur to assess compliance with Forest Plan standards and guidelines. It is my judgment that the extent and type of monitoring that has been designed into this project is appropriately modest. My judgment takes into account both a realistic expectation of funding and a perspective of need for monitoring based on lessons learned in implementing similar projects on the Fremont-Winema National Forests in recent years.
The actions listed below are <u>authorized</u> with the selection of the remaining portions of Modified Alternative 3 (all quantities are approximate); see also the Modified Alternative 3 Map, page 19 of this Decision Notice.

Table 1: Authorized Actions in Modified Alternative 3 Compared to Alternative 3

Design Element or Activity		Modified Alt. 3 (4/27/2007 Decision Notice)	Remainder of Modified Alt. 3 (this Decision Notice)	
Total Acres of all activity		11,322	2,166	
Harvest/Whipfell/Burn (Ac.)		4,659 (some mechanical in lieu of burning)	742	est. 2.1 mmbf
Harvest/Whipfell (acres)		2,200	264	est. 0.7 mmbf
Retention Area Design		Minimum of **10**% of the area treated in well-dispersed no-harvest retention.	Same as Alt. 3 (4/27/07 DN)	
Temporary road (Miles)		3.0	0.9	
Burn Only (acres)		170	264	
Pretreatment/Burn (acres)		687	101	
Plantation Thin (acres)		560	16	
Plantation Thin/Burn (acres)		670	175	
Juniper and Ponderosa Pine Stringer Thin (ac.)		786	426	
Juniper and Ponderosa Pine Stringer Thin/Burn (acres)		929	308	
Retention Strategy in Juniper and Ponderosa Pine Stringer areas		Retain all old growth Juniper.	Same as Alt. 3 (4/27/07 DN)	
Shrub retention strategy for any area with proposed burn	Summer	40% retention of all shrubs	Same as Alt. 3(4/27/07 DN)	
	Transition	40% retention of all shrubs	Same as Alt. 3(4/27/07 DN)	
	Winter	40% retention of all shrubs, except in areas of Juniper Thin/Burn which would be a minimum of 60% retention of all shrub	Same as Alt. 3(4/27/07 DN)	
Riparian Enhancement (total acres)		615	82	
- Outside Yamsay Semi-Primitive Area-		600	82	
- Within YSPA		15	0	

All action alternatives include a combination of actions designed to promote the overall sustainability of vegetative systems and hydrologic function within the project planning area. However, I believe that the specific balance achieved with Modified Alternative 3, in regard to the three most significant issues that arose during the analysis, provides the best overall response. It is my judgment that the selection of Modified Alternative 3 provides substantial and meaningful attainment of purpose and need for this project.

For details of authorized actions see EA, Chapter 2 or in the first Decision Notice, pages 10-14.

OTHER ALTERNATIVES
Other than Alternative 3, one other action alternative and a no-action alternative were analyzed in detail in the EA. An alternative suggested during initial project scoping was considered but not analyzed in detail. Two alternatives or major project components that were considered by the IDT were not analyzed in detail. All action alternatives that were developed and analyzed were designed to meet the stated project purpose and need. All alternatives that were developed and analyzed in the EA are compliant with Forest Plan Standards and Guidelines, as amended by Regional Forester Amendments, INFISH and project-specific amendments including those adopted with the first Bridge/Buck Decision Notice (see page 4 of this second Decision Notice).

Alternative 1 – No Action
Under this alternative, no harvest, slash treatment, temporary road construction, juniper cutting, burning, plantation thinning, riparian enhancement, road management, stream improvement, or Forest Plan Amendment, unless authorized by another planning process, would occur in response to the purpose and need. Ongoing management practices (such as road maintenance, fire suppression, and personal use firewood cutting) would continue with the selection of this alternative.

Alternative 2 – Proposed Action (in both the Initial Project Scoping and in the EA)
This alternative is the proposed action, as introduced in EA Chapter 1. It represents a more detailed version of the proposal presented to the public for scoping in May 2006, including clarification of the overall retention strategies and the shrub mosaic for prescribed burning. It also includes a modified design for riparian treatments. This alternative is in response to the purpose and needs identified in EA Chapter 1 and in this Decision Notice. As such, Alternative 2 represents the agency's initial proposal to meet project purpose and need. The primary differences between this proposed action and Alternative 3 are that Alternative 2 provides less overall vegetative diversity, emphasis on smaller no-harvest retention area design (in the lower end of the 1 to 5 acre range), an overall smaller number of acres of retention, no retention designs specific to areas of juniper treatment, and lesser retention standards for non-fire tolerant shrubs during prescribed burning operations. Alternative 2 has substantially more proposed riparian/meadow enhancement activity for locations within the Yamsay Mountain Semi-Primitive Non-Motorized Recreation Area.

ALTERNATIVES CONSIDERED, BUT ELIMINATED FROM DETAILED STUDY
Only alternatives or specific design elements that were responsive to purpose and need were fully developed and analyzed. Alternatives are, by definition, other strategies or ways to meet purpose and need.

Alternatives with Lower Diameter Limit and/or **Retention of "Small Diameter Old Growth"**
Alternatives that would have excluded trees from harvest at an upper diameter harvest limit less than the 21 inch limit, or that would specifically target retention of smaller trees with old growth characteristics, were considered during the analysis process. As described in the EA on pages 2-27 and 2-28, consideration of using a smaller diameter limit was prompted by a June 8, 2006 letter from the Oregon Natural Resources Council, which stated "*Please consider setting a smaller diameter limit. For fuels reduction purposes, removing trees less than 12 inches is most effective. For forest health purposes, leaving the biggest trees will be most beneficial."*

This alternative was not analyzed in detail because it would substantially lessen the attainment of purpose and need, in regard to the following (purpose and need):

- Increase the resiliency of late and old structure conifer stands (LOS) to withstand severe, uncharacteristic fires. Control stocking level in order to improve growth and protect stands from fire, insects, and disease.

- Provide forest products.

As reported in Chapter 3, Forested Vegetation, even at the upper harvest limit of 20.9 inches dbh, the objective of creating sustainable stand conditions would not be met on all acres because of the existing high stocking levels of trees greater than 21 inches dbh. In such stands, when trees over 21 inches dbh are present in excess of that level, they would not be removed and these more heavily-stocked clumps will experience a continuation of stress-related mortality. Establishing a smaller upper diameter limit would greatly increase the numbers of acres on which stocking levels objectives for creating sustainable conditions would not be met. The thinning proposed in Bridge/Buck is similar to the "Leave 45 sq ft BA, From Below (*BA 45*)" prescription studied by Mason (2003). That study concluded that the BA 45 prescription had the best overall fire risk reduction performance. Considering this, the prescriptions for Bridge Buck are generally supported by Mason et al, though that study did not include an "alternative" that was identical to those studied in Bridge/Buck.

For additional discussion see:
- EA Chapter 2, under the heading "Alternatives Considered, But Eliminated from Detailed Study" (pages 2-27 to 2-28) and
- EA Chapter 4, page 4, Summary of Comment and Responses and
- 2007_03_24_Response_to_Comments_Sec.2_citations.doc on the WWW at http://www.fs.fed.us/r6/frewin/projects/analyses/bridgebuck

EA Chapter 2 also summarizes consideration of an "Alternative with Site-Specific Amendment to Allow Harvest of Live Trees greater than 21 inches dbh" and an "Alternative with Implementation of Road Management Strategy" (EA pages 2-27 and 2-29).

FINDING OF NO SIGNIFICANT IMPACT

Sufficient information has been disclosed in the analysis to make a reasoned choice among alternatives. No significant impacts on the quality of the human environment have been identified. Information available from past actions of similar context and intensity in this area also indicates that no significant impacts would be anticipated.

The actions described in this Decision Notice DN will be limited in scope and geographic application (40 CFR 1508.27(a)). The location of the actions within Township 23 South, Ranges 12 and 13 and Township 23 South, Ranges 12 and 13 is described on maps included in the EA (see EA pages *ix*, 1-2, 2-33 to 2-39, and Figures 1, 2, and 3 of this Decision Notice. The physical and biological effects are limited. No impacts were identified that went beyond the Bridge Creek and Buck Creek subwatersheds.

Based on the site-specific analysis summarized in the Bridge/Buck EA and on previous experience with similar proposals, I have determined that implementation of the actions described in Modified Alternative 3 are not a major Federal action, individually or cumulatively, and will not have a significant effect on the quality of the human environment, considering the context and intensity of impacts (40 CFR 1508.27). Refer also to the reasons for supporting a finding of no significant impact that are detailed in the April 27, 2007 Decision Notice (pages 25-32). Thus, an environmental impact statement will not be prepared. This determination is based on the design of the project, on the

mitigation and resource protection measures included in the selected alternative, and on the consideration of the following factors:

1. Impacts that may be both Beneficial and Adverse (40 CFR 1508.27(b) (1)). Beneficial and adverse impacts of implementing Alternative 3 have been fully considered within the EA. Beneficial and adverse direct, indirect, and cumulative environmental impacts discussed in the EA have been disclosed within the appropriate context and intensity. There will be no significant direct, indirect, or cumulative effects to the various resources of the area or other components of the environment. A summary of expected impacts, as reported in the EA, including localized short term adverse impacts to: soils; water quality/aquatic habitat; and unroaded areas as well as several wildlife species, is displayed in Table 3 of the April 27, 2007 Decision Notice).

EA Chapter 2, supplemented by Appendix B, provides a detailed list of all design features, resource protection measures, and mitigation measures included in the selected Alternative. These protection measures pertain to wildlife, aquatics and soils, botany (including noxious weeds) and cultural resources. Together, as supported by the analysis in Chapter 3, these measures insure the potential effects of the alternatives remain at the level of insignificance. Additional measures, which would have further reduced some of the effects above, were considered, but not adopted because of the need to balance attainment of purpose and need with the consideration of the short term effects or the long term "trade-off" of beneficial and adverse effects. For example, a measure could have been adopted that would have eliminated all adverse effects in relation to sediment. However, that would have meant foregoing the use of prescribed fire in certain locations that are in immediate need of establishing a lower risk fuels condition In addition, it would have meant the deferral of some of the instream activity (i.e. LWD placement) that is need to provide long term riparian benefits.

2. Degree of Effect on Public Health and Safety (40 CFR 1508.27 (b) (2)). Modified Alternative 3 will not significantly affect public health or safety. No significant effects to public health or safety have been identified. This finding is supported by knowledge of past similar projects in which no effects to public health or safety have occurred. The project could lead to a slightly beneficial effect upon public health and safety because of long-term reduction in intensity of future wildfires in the project area. The felling of danger trees along roads could also have a beneficial effect upon public health and safety. Effects on safety are discussed in the EA (page 3-295).

3. Unique Characteristics of the Geographic Area (40 CFR 1508.27(b) (3). There will be no significant effects on historic or cultural resources, parklands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. All known historic or cultural resources have been avoided by project design (EA, page 3-178 and April 3, 2007 certification by Forest Archaeologist under SHPO Programmatic Agreement). The portions of the project area that had not yet been inventoried at the time of the April 27, 2007 decision now have been. A supplemental report was completed in January 2008. On January 22, 2008 the Forest Archaeologist, under a June, 2004 Programmatic Agreement between the USFS R6, SHPO and ACHP, certified that the project, due to avoidance of cultural resources, will comply with Section 106 of the National Historic Preservation Act. The area does not contain parklands, prime farmlands, or wild and scenic rivers. Riparian Enhancement actions, including non-commercial thinning, use of prescribed fire, and commercial timber removal on 46 acres, are all designed to promote the attainment of INFISH Riparian Management Objects (3-246 to 3-247). The proposed alternatives would have no impact on floodplains or wetlands as described in Executive Orders 11988 and 11990 (3-297). Adherence to INFISH (1995) direction provides the mechanism by which the Forest Service complies with the Executive Orders.

4. Degree to which the effects on the quality of the human environment are not likely to be highly controversial (40 CFR 1508.27(b) (4)). The effects on the quality of the human environment are not likely to be highly controversial. These types of activities have taken place on the Silver Lake and Paisley Ranger Districts in similar areas and the resulting effects are well known and understood. In that sense, there is no known scientific controversy over the impacts of the project. CEQ guidelines relating to controversy refer not to the amount of public support or opposition, but to where there is a substantial dispute as to the size, nature, or effect of the action.

An area of prospective scientific controversy, the most effective upper diameter limit for thinning projects, was introduced during public scoping and reiterated during the 30-day comment period for this project. Consideration of this topic is detailed in EA, Chapter 2, and summarized earlier in this Decision Notice (see "Alternatives with Lower Diameter Limit and/or Retention of "Small Diameter Old Growth"). Additional consideration is documented in EA Chapter 4 under "Content Analysis Summary." Briefly, a comment, citing Mason, et al. (2003) suggested that "The best available information indicates that the existence of brush and trees under 12 inches tend to contribute most to fire hazard (by increasing ground and ladder fuels) whereas retention of trees over 12 inches dbh can actually reduce fire hazard."

Mason et al. compared five distinct prescriptions in relation to their effectiveness for fire risk reduction. I note that the *12 inches dbh and above* prescription in the Mason et al. study is very dissimilar to the Bridge/Buck prescriptions. The Mason *12 inches dbh and above* study example favors taking the largest trees and removed nothing smaller than 12 inches dbh. Mason refers to this approach, using a term from past harvest practices, as high-grading. The Bridge/Buck proposal will favor leaving, not taking, the largest trees, and taking, not leaving, the smallest trees. The thinning proposed in Bridge/Buck is similar to the "Leave 45 sq ft BA, From Below (*BA 45*)" prescription studied by Mason. That study concluded that the BA 45 prescription had the best overall fire risk reduction performance. Considering this, the prescriptions for Bridge/Buck are generally supported by Mason et al, though that study did not include an "alternative" that was identical to those analyzed in Bridge/Buck.

In considering the findings and recommendations contained in over 250 publications, the analysis followed a site-specific, science-based process, as documented in the EA. Findings in the EA are specifically referenced to a broad-based body of source materials (see EA, Chapter 4, References). In addition, 47 publications used as reference by the public during the 30-day comment period were considered and evaluated (see Chapter 4 *Literature Cited in Comment Letters;* and in the planning record, or on the WWW at http://www.fs.fed.us/r6/frewin/projects/analyses/bridgebuck/index.shtml, a 25-page documentation of the evaluation (2007_03_24_Response_to_Comments_Sec.2_citations.doc).

Given the site-specific conditions and impacts disclosed in the EA (pages 3-1 to 3-297), the effects of implementation of this decision on the quality of the human environment are not likely to rise to the level of scientific controversy as defined by the Council of Environmental Quality.

5. **Degree to which the Possible Effects on the Quality of the Human Environment are Highly Uncertain or Involve Unique or Unknown Risks** (40 CFR 1508.27(b)(5)). The selected alternative does not impose highly uncertain, or involve unique or unknown, risks. The Forest Service has considerable experience with the types of activities to be implemented. The activities proposed in this decision are well established land management practices. The risks are well known and understood. Based on previous similar actions, the probable effects of this decision on the human environment, as

described in the EA, do not involve effects that are highly uncertain or involve unique or unknown risks.

6. Degree to which the Action May Establish a Precedent for Future Actions with Significant Effects or Represents a Decision in Principal about a Future Consideration (40 CFR 1508.27(b)(6)). Modified Alternative 3 does not set a precedent for other projects that may be implemented to meet the goals and objectives of the Forest Plan, nor does it represent a decision in principle about a future consideration (40 CFR 1508.27(b)(6)). While potential future actions (such as the ability to re-introduce prescribed fire) will be facilitated by this action, this action does not necessarily lead to or require any of future action.

7. Whether the Action is Related to Other Actions with Individually Insignificant but Cumulatively Significant Impacts (40 CFR 1508.27(b) (7). The actions authorized by the Decision Notice are not related to other actions with individually insignificant but cumulative significant impacts. The analysis in the EA does consider the prospect for future biomass operations (see EA Chapter 2). There will be no significant cumulative effects to:

Wildlife (discussed by species as follows):
- Mule deer, EA pages 3-18 to 3-19
- Three-toed woodpecker, EA page 3-55 to 3-56
- Red-naped sapsucker, EA pages 3-26 to 3-27
- Snag and cavity dependent species, EA pages 3-52 to 3-53
- Goshawk, EA pages 3-7 to 3-9
- Pine marten, EA page 3-23 to 3-25
- Pileated woodpecker, EA pages 3-21 to 3-22
- Gray flycatcher, EA page 3-59 to 3-61
- Neotropical migratory birds, EA pages 3-66 to 3-68
- Northern leopard frogs, EA page 3-62
- Northwestern pond turtles, EA 3-63 to 3-64\
- Old growth and connectivity corridor habitat – EA pages 3-70 and 3-74
- Rocky Mountain Elk- EA page 3-79
- Juniper habitats – EA, page 3-77

Vegetation, including spread of noxious weeds - EA pages 3-109 to 3-115; 3-275
Hydrology - EA pages 3-206 to 3-209
Fuels - EA Pages 3-138 to 3-139; 3-141 to 3-142; 3-148 to 3-149
Cultural Resources - EA pages 3-179
Soils – EA pages 3-195 to 3-196
Fish - EA pages 3-245 to 3-246
Non-forested vegetation and Range – EA pages 2-235 to 2-236 and 3-253 and 3-256
Sensitive Plants – EA pages 3-262 to 3-263
Recreation and Scenery – EA pages 3-286 to 3-287
Unroaded areas - EA pages3-292 to 3-293

8. Degree to which the Action may Adversely Affect Districts, Sites, Highways, Structures, or Objects Listed on the National Register of Historic Places or May Cause Loss or Destruction of Significant Scientific, Cultural, or Historic Resources (40 CFR 1508.27(b)(8). Cultural resource field surveys have been completed for all portions of this project. The activities selected for implementation will not adversely affect districts, sites, highways, structures, or objects listed in, or

eligible for, listing in the National Register of Historic Places or cause loss or destruction of significant scientific, cultural or historical resources. This is because all known sites have been avoided and any sites discovered during implementation of the project will be avoided (EA pages 3-178 and 2-24 to 2-25).

9. Degree to which the Action may Adversely Affect an Endangered or Threatened Species or its Critical Habitat (40 CFR 1508.27(b) (9). The selected actions associated with the project are not likely to significantly adversely affect any endangered, threatened, or sensitive terrestrial wildlife species, aquatic species, plant species, or designated critical habitat under the Endangered Species Act of 1973 based on the following information from biological evaluations and assessments prepared for this project:

Plants: 26 vascular plant species and 12 non-vascular plant species were considered for potential impact by the project. All plants were determined by the Sensitive Plant Species Biological Evaluation to be "no impact" or "project may impact individuals or habitat, but will not likely result in a trend toward federal listing or reduced viability for the population or species." See EA, pages 3-261 to 3-265.

Aquatic Wildlife: The Biological Evaluation, summarized in the EA (page 3-247) concluded "On the basis of the above evaluation, if the project is implemented as described in the project proposal, implementation of the preferred alternative associated with the Bridge/Buck Restoration Project is **Not Likely to Adversely Affect** redband trout. The project may proceed as planned. The proposed project **may impact individuals or habitat of redband trout** however, this project is not likely to result in a trend toward federal listing or loss of viability of Region 6 sensitive fish species, redband trout."

Terrestrial Wildlife: 16 terrestrial species that are listed as Sensitive, two species that are "candidate" species and two that are listed as threatened were evaluated. Conclusions ranged from "No Impact" to "may impact individuals or habitat, but will not likely result in a trend toward federal listing or reduced viability for the population or species" to "No Effect ". See EA, pages 3-57 to 3-58.

10. Whether the Actions Threatens a Violation of Federal, State, or Local Environmental Protection Law (40 CFR 1508.27(b) (10). This decision is in compliance with relevant Federal, State, and local laws, regulations, and requirements designed for the protection of the environment (40 CFR 1508.27(b) (10). Applicable laws and regulations were considered in the EA (see Chapter 3 sections, by resource, under the heading "Regulatory Framework").

My decision to implement the projects as described in Modified Alterative 3 is consistent with the intent of Forest Plan management direction (goals, desired conditions, standards, guidelines), as amended. The project was designed in conformance with Forest Plan standards and incorporates appropriate Forest Plan guidelines specifically for snags, down woody material, big game habitat, riparian habitat, streams, and timber harvest. In evaluating the information presented in the EA, it is my judgment that projects elements were developed particularly with regard to the goals and standards detailed for the following management areas (which represent the allocations found within the project area – See EA, Chapter 1, pages 1-9 to 1-13):

MA 1: Mule Deer Winter Range (amended by site-specific LRMP amendment #29)
MA 5: Timber and Range Production (amended by Regional Forester's Eastside Forest Plan

Amendments #1 and #2)
MA 9: Semi-Primitive Recreation
MA 3 and 14: Old-Growth Dependent Species Habitat
MA 15: Fish and Wildlife Habitat/Water Quality (amended by INFISH)

OTHER FINDINGS

Federal regulations require that permits, contracts, cooperative agreements, and other activities carried out on the Silver Lake Ranger District are consistent with the Fremont National Forest Land and Resource Management Plan (Forest Plan), as amended. I have reviewed my decision against Forest Plan direction, and I have determined that this action is consistent with the goals, objectives, and direction contained in the Record of Decision (ROD) for the Fremont National Forest Land and Resource Management Plan and accompanying Final Environmental Impact Statement (1989). Alternative 3, and, therefore Modified 3, complies with all applicable direction, including both Management Area and Forest-Wide standards and guidelines, Regional Forester's Eastside Forest Plan Amendment No. 2, and the Inland Native Fish Strategy (INFISH, 1995). The project meets the "does not retard attainment" of Riparian Management Objective requirement of INFISH.

The procedures used to initiate and complete the planning of the project are consistent with the 1999 Memorandum of Agreement between The Klamath Tribes and the U.S. Forest Service. The project is not expected to have an adverse effect on Treaty Rights or treaty right resources, other than the short term effects on cover, explained above, along Bridge Creek, Buck Creek, and the Thirteen Mile Spring drainage (EA, page 3-182).

This decision is in compliance with Executive Order 12989 "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" (EA page 3-294). The project also complies with Executive Order 13112 (invasive species) and Executive Order 11990 (protection of wetlands) (EA page 3-297). Adherence to INFISH (1995) direction provides the mechanism by which the Forest Service complies with Executive Order 11990. Adherence to Regional and Forest direction for the prevention of noxious weeds (see EA pages 2-23 to 2-24 and Appendix B) provides the mechanism by which the Forest Service complies with Executive Order 13112.

This decision is consistent with recent Forest Service Manual direction regarding roads analysis. I have determined that additional roads analysis is not needed for this project because no new Classified Roads will be built.

IMPLEMENTATION, ADMINISTRATIVE REVIEW and APPEAL OPPORTUNITIES

This decision is subject to appeal pursuant to 36 CFR 215. Any written notice of appeal of the decision must be fully consistent with 36 CFR 215.14, "Appeal Content."

The Appeal Deciding Officer is Karen Shimamoto, Fremont-Winema Forest Supervisor. The notice of appeal must be filed hard copy with:

Fremont-Winema National Forests
1301 South G Street
Attn: 1570 Appeals
Lakeview, OR 97630

Or alternately faxed to (541) 947-6399, sent electronically to:

appeals-pacificnorthwest-fremont-winema@fs.fed.us

or hand delivered to the above address between 7:45 AM and 4:30 PM, Monday through Friday except legal holidays. The appeal must be postmarked or delivered within 45 days of the date the legal notice for this decision appears in the Klamath Falls *Herald and News*. The publication date of the legal notice in the Klamath Falls *Herald and News* is the exclusive means for calculating the time to file an appeal. Those wishing to appeal should not rely on dates or timeframes provided by any other source.

Electronic appeals must be submitted in a format such as an email message, plain text (.txt), rich text format (.rtf), Word (.doc) or portable document format (.pdf). In cases where no identifiable name is attached to an electronic message, a verification of identity will be required. A scanned signature is one way to provide verification. E-mails submitted to email addresses other than the one listed above, or in formats other than those listed or containing viruses, will be rejected. It is the responsibility of the appellant to confirm receipt of appeals submitted by electronic mail. Only individuals or organizations that submitted comments during the 30-day public comment period may appeal (see page 6 of this Decision Notice). It is the appellant's responsibility to provide sufficient project- or activity-specific evidence and rationale, focusing on the decision, to show why the Responsible Official's decision should be reversed.

If no appeal is received, implementation of this project will not occur prior to five days after the end of the appeal period, following the date on which the legal notice announcing this decision appeared in the Klamath Falls *Herald and News*.

If an appeal is filed, implementation will not occur prior to 15 days following the date of appeal disposition. If multiple appeals are filed, the disposition date of the last appeal will control the implementation date.

/s/ *Barbara L. Machado* 4-4-08

BARBARA L. MACHADO DATE
Acting Silver Lake Ranger District

Contact Person:
Rick Elston
Environmental Coordinator
Silver Lake Ranger District
P.O. Box 129
Silver Lake, OR 97638 Phone: (541) 576-7569

Distribution

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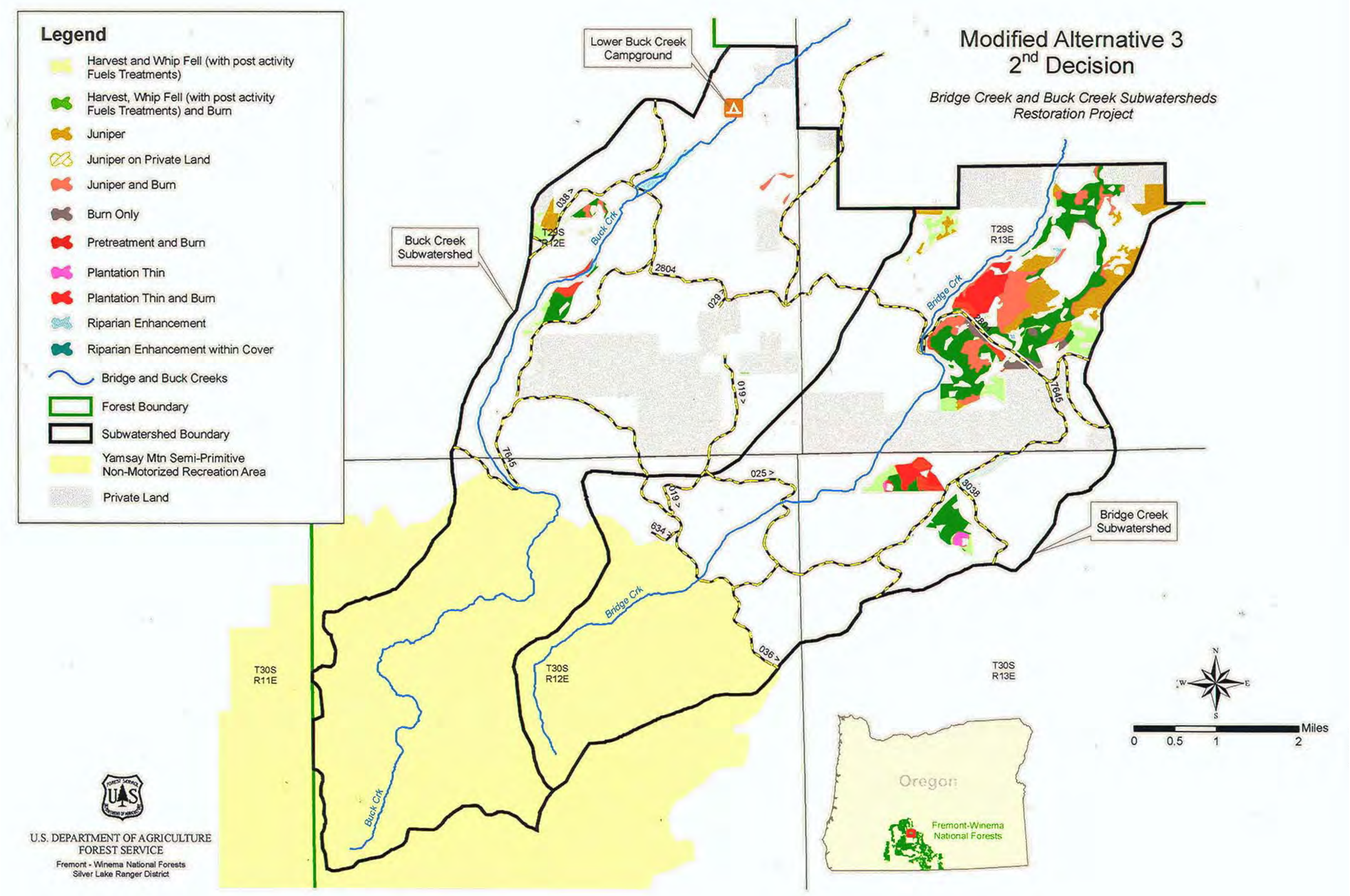
Perry Chocktoot - Director, Culture and Heritage, The Klamath Tribes
Will Hatcher - Natural Resource Director, The Klamath Tribes
Joe Hobbs - Chairman, The Klamath Tribes Indian Game Commission
Craig Foster - Oregon Dept. of Fish and Wildlife
Leona Campbell
Mary Jo Hedrick - Oregon Department of Fish & Wildlife


Legend
Harvest and Whip Fell (with post activity Fuels Treatments)
Harvest, Whip Fell (with post activity Fuels Treatments) and Burn
Juniper
Juniper on Private Land
Juniper and Burn
Burn Only
Pretreatment and Burn
Plantation Thin
Plantation Thin and Burn
Riparian Enhancement
Riparian Enhancement within Cover
Bridge and Buck Creeks
Forest Boundary
Subwatershed Boundary
Yamsay Mtn Semi-Primitive Non-Motorized Recreation Area
Private Land
Modified Alternative 3
2nd Decision
Bridge Creek and Buck Creek Subwatersheds Restoration Project
Lower Buck Creek Campground
Buck Creek Subwatershed
Bridge Creek Subwatershed
Buck Crk
Bridge Crk
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T29S R13E
T30S R11E
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U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Fremont - Winema National Forests
Silver Lake Ranger District