Addendum to the Social Assessment for The Ashland LSR Habitat Restoration and Fuels Reduction Project to Address the Preferred Alternative

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This report is an addendum to the Social Assessment for the Ashland LSR Habitat Restoration and Fuels Reduction Project (Perrochet and Boland 2007). Relevant laws, regulation, policy and analysis methods can be found in that document.

The Preferred Alternative for the Ashland LSR Habitat Restoration and Fuels Reduction (Ashland LSR) project proposal does not propose changes in the management policy of the Forest, but rather is a mechanism for implementing the management direction already established.

Historical social setting

The historical setting is provided in the Project Social Assessment (2007).

Methodology

Effects to social values are discussed in narrative form. Indicators of the social environment are economics, community capacity, forest management values, visuals (scenic), Environmental Justice, recreation, human health and safety, Wild and Scenic Rivers, Wilderness, Roadless areas, air quality, heritage resources and tribal uses, and transportation,

Affected Environment

The Affected Environment is provided in the Project Social Assessment (2007).

Environmental Consequences

Alternative 1- No Action

Economics: Timber or biomass from the Project Area would not be available to regional markets and demands will be satisfied by other domestic or foreign sources. Contract work from awarded timber sales, stewardship contracts, road contracts and survey work would not be realized. Conversely, there would be no costs associated with hazardous fuels reduction and no funding needs for density reduction in mid-successional stands.

Community Capacity: With the No Action Alternative, the future social situation in the vicinity of the Project would likely be similar to the present. Community capacity and infrastructure would remain limited, and unemployment and poverty would remain high where it is currently high. Contract work from awarded timber sales, road contracts, silvicultural work, non-profit organizations, and survey work would be on-going. Residents, including American Indians, may

benefit from some of these contracts. There would be no new contribution to contract work in either the local communities or the seven-county area from this alternative.

Visuals (scenic): "Scenic Stability" effects of the No Action Alternative are widespread and adverse throughout most of the project area. The No Action Alternative would maintain and prolong the currently diminished scenic character, with its excess of overly dense stands of smaller and intermediate trees, and shortage of large trees within more open stands and scattered small (1-5 acre) openings. Since much of the project area has missed several cycles of natural wildfires the No Action alternative would also prolong the substantial risk of excessively large and concentrated forest canopy openings due to extreme wildfire events and other ecosystem stressors. These events could greatly alter the canopy pattern and overall scenic character of the project area. The No Action alternative's perpetuation of the currently diminished scenic character would remain readily apparent within most project area views, regardless of viewing distance (Mosier, 2006).

Recreation: Alternative 1, No Action, would have no effect on recreation resources in the Project Area. Recreation opportunities would not be altered.

Human Health and Safety: Short-term risks to human health and safety are not expected to change from the current condition with the No Action Alternative. Increasing fuel loads in the project area would increase fire hazard, so any stand-replacing fire in the project area would have the potential to move to the other areas of the watershed where community members live, over the Siskiyou Crest, and/or toward the Mt. Ashland ski area.

Wild and Scenic Rivers, Roadless Areas, Air Quality, Heritage Resources and Tribal Uses, and Transportation: Alternative 1 would have no direct, short term impact on these types of values. In the long term and in the event of a stand replacing fire, air quality would be the most directly affected of these value elements and roads may have to be built for fire suppression (relative to the Transportation value element). There would be no change to inventoried roadless areas because there are no inventoried roadless areas in the project area. Regarding the Wild and Scenic River, the Klamath River could potentially be affected by a large scale fire if sediment delivery was increased beyond functional capability of the watershed. Heritage resources and tribal uses may be impacted by a large scale fire.

Environmental Justice: The lack of new work opportunities could affect individual members of local communities and/or the two-county area. Census data for the census tract representing the local population shows that the local population has a higher percentage of low-income people compared to the COC (29.9% vs. 15.5%). No adverse environmental effects will occur as a result of implementing this Alternative but the local population may be disproportionately negatively affected by the lack of work opportunities.

Mt. Ashland/Siskiyou Peak Special Interest Area: This Alternative will not affect the SIA. Three endemic species of special concern inhabit the dry, open, gravelly, granitic slopes along the Siskiyou Crest within the SIA: *Horkelia hendersonii, Lupinus aridus* ssp. *ashlandensis*, and *Tauschia howellii*. Because these species grow on decomposed, granitic, barren areas there is a low likelihood of impact by wildfire.

Forest Management Values: Those who are opposed to forest management would favor this alternative. Those who value creating job opportunities, including those employed by fuels

reduction work and those who bid on service contracts, would not support this alternative. Some people may think that this Alternative is not wise management of the Project Area because it does not restore and protect late-successional forest or reduce wildfire risks as described as desired conditions in the Forest Plan, the Beaver Creek Ecosystem Analysis, and in the 2006 Business Plan for the Klamath National Forest. Those that wish the forest to remain 'as-is', would not like this Alternative because the forest is a dynamic system and will continue to change, moving through typical western forest successional vegetative conditions.

The No Action Alternative would not implement the Selected Alternative in the Forest Plan that was identified as providing the highest net public benefit (USDA FS 1995c, page 11).

The No Action Alternative would respond to values associated with maintaining existing conditions. It would result in no management actions occurring on the landscape, which is important to some. However, it may not result in protecting old trees, water quality or pleasing scenery in the event of a wildfire. The No Action Alternative would not respond to values associated with reducing fuel loading or thinning to promote development of late-successional forest.

Preferred Alternative

Economics: Implementation of the Preferred Alternative would result in economic benefits to the local economy through use of timber sale contracts, stewardship contracts, Force Account, or a combination of the above, to accomplish Project objectives. The economic benefits from this Project could go to either Oregon or California or both depending on markets, mill capability, and location of biomass facilities. Based on modeling for the original action alternatives (Young 2006), and using an average ratio of 1 MMBF for every 247.4 acres treated, wood products could be provided to support local mills and supply markets within the assessment area with the offer of roughly 14.6 MMBF (this is a modeled estimate without cruise data) for the Preferred Alternative. The jobs attributed to this volume are estimated at roughly146 jobs in the wood products industry.

Revenue generated from the sale of wood products would offset the cost of conducting habitat restoration and fuels reduction treatments. However, using preliminary model estimates (without cruise data) from Young 2006, and using an average ratio of the costs per acre, additional funding would be needed to complete the Preferred Alternative as follows: implementing the commercial thinning and associated fuels treatments in stands would cost an additional $326,701 (as compared to $466,467, $287,147, and $626,752 for Alternatives 2, 4, and 5 respectively). In addition, underburning of an additional 1,297 acres would cost roughly $129,700 (Journey pers. com. 2008). The non-commodity values relating to stand health, the ecosystem, and stand sustainability are discussed in the Project Social Assessment (Boland and Perrochet 2007).

Community Capacity: With the Preferred Alternative, the future social situation in Beaver Creek area would likely be similar to the present. Available contract work, including service contracts, and work with non-profit groups would increase in the short-term. Estimated jobs attributed to logging and/or stewardship contracts are displayed above and in the Economic Report. Any Action Alternative would include a temporary increase in employment, which could directly provide economic benefit to some local residents in this line of work. Small, short-term, indirect benefits might accrue to local residents if they work in support industries in the County. None of these

employment effects would be substantial enough to noticeably improve community capacity. The cumulative effects of these short-term increases combined with other work available in the communities and in the seven-county area could add up to full time employment for a limited number of people.

Visuals (Scenery): Effects of the Preferred Alternative on the valued scenic character and its scenic vegetation attributes would be widespread and favorable throughout most of the Project Area. Because the proposed thinning and fuels reduction treatments affect about 35% of Project Area within priority stands and major ridgelines, the Preferred Alternative would immediately enhance the currently diminished scenic character to a moderate degree within the treatment areas, and increase its ecological resiliency within the project area for several decades to come. The Preferred Alternative's scenery effects vary from the other Action Alternatives, by providing the greatest overall sustainability of the valued scenic character through a substantial increase in fuel reduction activities in strategic locations as well as a similar level of scenery-beneficial thinning activities. The Preferred Alternative also excludes proposed thinning and fuels reduction activities in areas near the Pacific Crest Trail and Siskiyou Crest Road, thereby avoiding scenery disturbances in these sensitive immediate foreground views. Refer to the Scenery Analysis (Mosier 2006) and the Addendum to the Scenery Analysis (Mosier 2007) for a discussion of how values would be affected from a scenic standpoint

Recreation: Klamath LMP direction to achieve "semi-primitive" or "roaded-natural" ROS (Recreational Opportunity Spectrum) Class conditions (USDA 1986) will be fully satisfied. ROS attributes such as evidence of humans, recreation facilities, social encounters, and distance to roads; etc would remain consistent with that direction. The No Action Alternative would best satisfy these ROS factors in the short term by not producing any additional evidence of humans, thereby maintaining the semi-primitive ROS conditions along the Siskiyou Crest. However, the recreation setting of the Crest and project area would remain threatened by high wildfire risk. Conversely, the Action Alternatives would substantially reduce that risk, while producing some additional evidence of human disturbances, yet those disturbances would be limited by project design features to retain semi-primitive conditions within the Siskiyou Crest. Alternatives 2-5 would produce some minor and adverse evidence (logging associated disturbances) along some segments of the Pacific Crest Trail, Siskiyou Crest Road and Beaver Cr to Mt Ashland Road. The Preferred Alternative however, would not alter the Pacific Crest Trail and Siskiyou Crest Road settings by avoiding treatments in this area.

Operational impacts of the project activities proposed within the Action Alternatives include temporary adverse recreation effects of industrial traffic, noise and dust. No significant long-term impairments to recreation settings and opportunities, or recreation use levels would occur with any of the Action Alternatives (Kraus 2006) (Mosier 2007). It is not expected that recreation use will measurably increase or decrease because of the proposed project. Changes in stand structure, composition and overall forest resiliency resulting from the Action Alternatives would be moderately beneficial to the project area's recreation settings for both dispersed and developed recreation, in terms of both ecological stability and scenic attractiveness. Of these alternatives, the Preferred Alternative most robustly restores ecological and scenery conditions in the project area, thereby providing the greatest benefit to its recreational settings. For more information about these effects, refer to the Mount Ashland Project Scenery Analysis (Mosier 2006) and Addendum (Mosier 2007), which contains specific effects information about the Siskiyou Crest, Pacific Crest

Trail and other areas typically frequented by recreation visitors. Indirect benefits of the recreation improvements above would also enhance local quality of life and tourism economics."

Air Quality: The action alternatives will generate dust, primarily from hauling material during restoration and fuels reduction activities. Road maintenance and road decommissioning will also emit particulates for short periods while the activities occur. Dust abatement plans will be included in contracts, so road-related activities, including hauling, generally occur when some moisture is in, or added to, the road soil. Dust abatement protects public health and safety, protects the road surface, minimizes dust on vegetation and in streams, and reduces road-related erosion. The air quality design features will minimize the potential for direct effects on air quality and indirect effects on public health due to underburning and pile burning. Visitors and local residents may detect smoke and experience short periods of visibility impairment during prescribed burning. Particulate emissions from burning will likely persist in the atmosphere from one to several days. This smoke could travel long distances, contributing to cumulative haze and visibility impairment in the region. Implementing smoke management plans, burning during favorable weather conditions when smoke is carried away from sensitive areas, and using the best available fire and emission control measures will minimize visibility impairments in the region. The Preferred Alternative is not expected to exceed 24-hour or annual State and Federal Standards and will not degrade air quality or attainment status in the area (Air Quality Report 2007, Amended Air Quality Report 2008).

Human Health and Safety: The action alternatives would avoid adverse effects to public safety through expert project design consistent with laws and regulations. All action alternatives would include standard public health and safety clauses in all contracts and agreements. Standard precautionary measures would be used, such as dust abatement, using signs to identify the area when road use is concentrated and intensive, safely securing truckloads, and maintaining the haul route. There is no use of borax, as is sometimes used for stump treatment, or strychnine, as is sometimes used for gopher control, proposed in this Project.

The Air Quality Design Features would minimize the potential for air quality effects on public health due to pile burning and underburning. Masticating/grapple yarding rather than burning fuels on 1,245 acres in Alternative 2; on 946 acres in Alternative 4; on 1,120 acres in Alternative 5; and on 1,037 acres in the Preferred Alternative would also help limit potential emissions and reduce adverse effects on public health. Emissions would be consistent with State and Federal air quality standards as discussed in the Air Quality Report (2007) and the Amended Air Quality Report (2008). Due to the reduced available fuels, particulate emissions in treated areas in the event of a wildfire would be reduced, minimizing the risk of adverse effects on human health.

Felling hazard trees will provide for public safety on Forest Service roads, consistent with the requirements of the Federal Highway Safety Act and the Occupational Safety and Health Administration regulations. Hazard trees will be identified using the Klamath Hazard Tree Guidance (USDA Forest Service. 2001a).

Transportation: All of the action alternatives will have similar effects relative to the transportation system except as indicated. Maintenance of haul roads for the Project will improve driver safety and comfort by clearing, blading and dust abatement where required for treatment access or haul. Clearing roadside vegetation will improve visibility. Blading will remove rocks and debris from the road surface and smooth the road surface. Dust abatement will improve user

safety on gravel and native surfaced roads. However, the increased truck and heavy equipment traffic during the implementation of the project will make the haul routes more hazardous during the life of the Project. In summary the action alternatives are equally more likely to improve user safety and comfort in the years after the Project than the no action alternative, which depends on routine maintenance, as funds allow, to accomplish maintenance work.

Decommissioning the one system road 40S20 will not effectively reduce access in the project area. 40S20 is currently impassible approximately ¼ mile from its junction with the 20 road. Year-round closure of system roads which have been open will restrict some public access in the project area, notably at the upper end of the Long John Creek 7th-field subwatershed where five dead-end spurs have been proposed for year-round closure under all action alternatives: 40S09, 40S10, 40S13A, 40S15A, and 40S16A, totaling 8.80 miles. These roads have low recreational use, with a few historic hunter camps. Many of these roads have been heavily overgrown and only recently opened up by plantation thinning projects. The tie-through roads in this area, 40S06, 40S13, 40S15, and 40S16, will remain open. Of the roads proposed for year-round closure, only 41S13 has been closed in the past. It accesses private land and is under special use permit to the land owner. It is located at the lower end of the Beaver/ Grouse Creek 7th field watershed and is 0.50 miles long. Existing unauthorized roads used by the project and not needed for long-term management will be decommissioned; temporary roads constructed by the project will also be decommissioned. Alternative 2 will decommission 22 roads, Alternative 4 will decommission 17 roads, Alternative 5 will decommission 10 roads, and the Preferred Alternative will decommission 9 roads.

Including unauthorized roads on the system provides access for this project and also for long-term management. Four existing roads and road segments would be included in the system under all action alternatives: 40S06.2 (this road will remain closed year round as it is now), 40S16.1, 40S16.6, and 41S15.1. Placement on the system would provide the mechanism and means to manage these roads and mitigate any potential resource issues.

Prior to Project implementation, a Traffic Control Plan will be developed that provides for public safety on Forest Service controlled roads and trails open to public travel. Hazard tree removal, a non-discretionary action, will meet Occupational Safety and Health Act standards for hauling, landing use, tree falling, and associated actions. Hunters will be informed well in advance of hunting season about the project and potential impacts to hunting and camping, including road conditions and closures.

The widely dispersed traffic and noise from thinning and fuels reduction activities and transporting workers, equipment, and materials could disturb people in the short-term. Visitors using roads in the vicinity of Project work may choose to avoid the area and use other parts of the Forest for a short period of time to avoid the noise and traffic delays. The construction of spur roads would not increase or restrict traffic in the area because they are in short segments and will be decommissioned at the end of the Project

Wild and Scenic Rivers, Heritage Resources and Tribal Uses, Roadless Areas. The Action Alternatives would have no effect on Wild and Scenic Rivers because there is no effect on the outstanding remarkable values associated with the designation, such as: anadromous fish or water quality in the Klamath River (Thomas 2007, Snavely 2007).

The action alternatives would have no effect on historic properties because these properties would be avoided by project design; historic properties will be fully protected utilizing avoidance protection measures (buffers). Native Americans did not identify any potential conflicts or special

contemporary uses during scoping; therefore, it is expected that the risk of disturbing contemporary native use sites is low. It is not anticipated that an action alternative will adversely affect contemporary Native American uses or values.

There would be no change to inventoried roadless areas because there are no inventoried roadless areas in the Project Area.

Environmental Justice: Based on the analysis of environmental effects in Chapter 3, the Preferred Alternative would have no adverse effects on human health or the environment that are significant, unacceptable, or above generally accepted norms. Although there are modeled negative cumulative watershed effects, there will be no adverse effects to domestic water sources or fish (refer to the Water Quality discussion). Census data for the local area (census tract) suggests that the percentage of the local population that is minority is equal to or less than the Community of Comparison (2 counties) but that there are a disproportionate number of low-income people. Therefore, implementation of the Preferred Alternative may have beneficial social effects in that local residents may benefit from the work generated by the Project.

The Project does not appear to have a disproportionately high or adverse effect on minority or low-income populations. Extensive scoping, as described in Chapter 2, did not reveal any issues or concerns associated with the principles of Environmental Justice. No mitigation measures to offset or ameliorate adverse effects to these populations have been identified. All interested and affected parties will continue to be involved with the public involvement and decision process.

Because the project area has a relatively high road density for the Forest, the decommissioning of one short segment of a system road and several segments of unauthorized roads would reduce motorized access in a few localized areas. The remaining roads in the project area would continue to provide access to the general area. This is not expected to disproportionately affect any group.

Mt. Ashland/Siskiyou Peak Special Interest Area: The Mt. Ashland/Siskiyou Peak Botanical Special Interest Area (BSIA) is located within the Project Area boundary at the highest elevations and outside of Project activity areas. The project has been designed to avoid adverse effects to this SIA (Knorr, 2006).

Forest Management Values: People have various perceptions on what constitutes a natural or pleasing landscape and what constitutes wise management of natural resources. The Forest Service Scenery Management System assumes that a pleasing landscape is the proxy most often used by people to judge wise use of resources. Other elements of existing conditions and wise management include maintaining air and water quality as well as providing habitat for plant, wildlife, and fish species. Refer to Air Quality, Water Quality, Vegetation, Fisheries, and Wildlife Specialist Reports for a discussion of these values. Those who value no human intervention in the landscape would not support any of the Action Alternatives unless they view the Project as a response to past human activity to meet long term goals for the forest ecosystem.

The Preferred Alternative would contribute to implementing the Selected Alternative in the Forest Plan, which was identified as providing the highest net public benefit and is consistent with the 2006 Business Plan for the Klamath National Forest, Component 1.5, to "Maintain healthy vegetative condition by controlling density levels, to prevent mortality from insect, disease,

drought and fire". More specifically, the Mt. Ashland LSR Project is identified as part of the Forest's effort to improve habitats for threatened, endangered, or sensitive species that prefer late-successional forest types. Those who agree with the Forest Plan provisions and believe one of the action alternatives is the best means of implementing the Forest Plan in this area will view that alternative as wise management because it leads toward achieving the desired conditions. Those who disagree with the Forest Plan provisions will not view implementing an action alternative as wise management; this includes but is not limited to those who prefer one use to prevail for the entire Forest, those who believe allowing natural processes, including wildfire, to dominate throughout the entire Forest is the best policy, and those who do not want any trees or any large trees or any old-growth trees to be cut. Those who agree with the multiple-use provisions of the Forest Plan, but don't believe any of the action alternatives are the best means of implementing the Forest Plan will likely not view an action alternative as wise management. The action alternatives will please those who value job opportunities in the area and those who agree with using mechanical reduction of fuels to reduce wildfire risk.

The slight scenic alterations to the landscape could adversely affect those who use the Forest for renewal or spiritual practices, although these values were not identified as important in the project area during scoping. The noise disturbance will persist for several days in any local area, but could persist somewhere in the watershed over several seasons. In the long term, the public will enjoy the use of the watershed more because the risk of high intensity fire is reduced and over-all forest health will be improved for late-seral forest habitat dependent species by the action alternatives.

The Preferred Alternative would respond to values associated with protecting old trees and late-successional habitat because large trees will be retained as part of the prescription and prescriptions are designed to promote development late-successional forest. Fuels reduction treatments are designed to reduce the risk of catastrophic wildfire and subsequent loss of forested habitat. Although the effects of treatments are minor, the Preferred Alternative would not respond as well as the No Action alternative for values relating to no road construction, no watershed effects, and no habitat fragmentation. In the event of a wildfire under the No Action Alternative, these values would be more negatively affected than under the Preferred Alternative.

Other Contributers

Mark Young (Economics) Jerry Mosier (Scenery), Juan DelaFuente and Julie Knorr (SIA), Candy Cook-Slette (Heritage), Jim Davis (roads assessment), Debi Wright and Bill Snavely (Air Quality), and Peg Boland (Social Scientist).

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Background information to determine the Affected Environment for the Ashland LSR project

In the 1990s, the Forest contracted for a study on communities within the Klamath Region (Doak and Kusel 1997). The study examines the socioeconomic status and community capacity as indicators of the well-being of communities. Relative socioeconomic status was assessed using a scale of factors. "The design of the socioeconomic status scale assumes that higher levels of home ownership, education and employment indicate higher levels of socioeconomic well-being, and higher levels of poverty and higher percentages of children in homes receiving pubic (sic) assistance income indicate lower levels of socioeconomic well-being… Community capacity is defined as the collective ability of residents in a community to respond to external and internal stresses; to create and take advantage of opportunities; and to meet the needs of residents, diversely defined. Physical capital, human capital and social capital are the primary components of community capacity" (page i).

The names and descriptions of the Aggregations and social well being is from Doak and Kusel's 1997 report on "Well-Being Assessment of Communities in the Klamath Region". Prepared for the United States Forest Service, Klamath National Forest under contract 43-91W8-6-7077, October 20, 1997. http://www.inforain.org/indicators/klamath

Population data for the Aggregations came from http://www.inforain.org/indicators/klamath.
Population data for the town of Happy Camp: http://www.happycampchamber.com/community.html.
Population data for the town of Klamath River:
http://realestate.yahoo.com/Neighborhoods/detail.html?csz=Klamath%20River,CA.

Low **socioeconomic scores** highlight a range of societal needs within aggregations. Low **capacity scores** indicate a reduced ability of local communities to effectively address those needs and to self-develop.

The description of the community capacity of surrounding communities

The communities below are listed in order based on geographic proximity to the project area with consideration of the population size, the likely social use of the Beaver Creek watershed based on the description of the social attributes by Koak and Kusel, 1997 and knowledge of populace's behavior. For example, residents of Happy Camp are more likely to drive by Beaver Creek watershed than Ashland or Hornbrook residents because Happy Camp residents travel to Yreka via highway 96 and pass the town of Klamath River and the mouth of Beaver Creek to get basic services in Yreka. Ashland and Hornbrook would receive services in Ashland or travel Highway 5 to Yreka without passing the Beaver Creek watershed. Hunting is a more common recreation in Happy Camp, Yreka, and Klamath River than in Ashland per the social description of these aggregations in Doak and Kusel, 1997. In general, the Beaver Creek watershed is not accessible to the Oregon communities for part of the year because roads get the presence of snow prohibits road

access, ranking social use of the watershed higher for Siskiyou county residents than Ashland area residents. Ashland residents could be more concerned about fuels reduction in the watershed, but this was not expressed during the public scoping phases of the project…it is displayed via the development of the Ashland Resiliency project, EIS, Rogue-Siskiyou National Forest. The economic benefits from this project could go to either Oregon or California or both and are considered part of the existing integration of natural resource benefits of communities surrounding the area. The potential benefits of this project related to the restoration and protection of habitat for species listed under the ESA was not used in the consideration of prioritization because citizens in both Oregon and California communities have expressed an interest in managing natural resources wisely, including management of the habitat for species listed under the ESA.

The project area lies within the Happy Camp/Klamath River aggregation which is rated as medium for socio-economic and community capacity conditions. The description of this aggregation is somewhat overshadowed by the larger community of Happy Camp. The statements applicable to the small communities of Klamath River, Hamburg, and Seiad Valley follow: "Happy Camp/Klamath River is a remote, natural resource dependent community. Native Americans, most of whom are members of the Karuk Tribe, account for 17 percent of the population. Ten percent of the population is Hispanic. Long dependent on the timber industry, this area is evolving towards a greater dependence on recreation and tourism…. Based on the 1990 census data, 26 percent of workers are employed in the durable goods manufacturing sector, a level that has likely declined since the mill shut down. Thirteen percent are employed in the agriculture, forestry and fisheries sector, and 17 percent in retail services… (T)he 1990 unemployment rate of 18 percent is the highest in the subregion. Twenty-two percent of males are unemployed compared to 11 percent of women. Federal employees comprise 13 percent of the work force. Services are limited and there is no medical clinic in the area; residents must drive two hours to see a doctor or dentist. Most of the land is federally managed. Mobile homes and trailers make up 37 percent of the housing stock. There is a small population of higher educated residents, which includes teachers, business owners, and USFS employees. Collectively, residents are identified as "rugged individualists" with a variety of outdoors-oriented skills… One area the groups are working on is keeping schools open." (Doak and Kusel, pages 72-73).

The 2000 Census (U.S. Census Bureau: California: 2000, Summary Social, Economic, and Housing Characteristics, Issued March 2003) did not show improvement in the employment figures for those employed outside the home, nor in per capita income in Siskiyou County. However, since 2000, communities along the Klamath River have shown increased willingness and ability to join together to accomplish important tasks related to improving watershed health and reducing unwanted fuel loading on private land. Some of this revitalization of community capacity was probably due to the financial assistance available through the National Fire Plan and the Secure Rural Schools and Community Development Act of 2001 for communities that banded together and sought opportunities for grants. More recent information on the social situation in the mid-Klamath River area is available in the case study conducted for the "Northwest Forest Plan: The First Ten Years, Socioeconomic Monitoring Results" by Susan Charnley and others of the Northwest Forest Plan Monitoring Group (Susan Charnley and Margaret Boland, personal communication).

The Kusel study states that almost every community meets around local volunteer fire departments and schools. Local fire safe councils, created since the study, increasingly play this role. The Klamath River Elementary School, kindergarten through grade 8, are open but have declining enrollment. The Klamath River Hose company (volunteer fire department) provides fire protection and fund-raising activities. The Klamath River Hose Company, which covers the area from Horse Creek to Humbug, maintains a station in Horse Creek. The Klamath River Fire Safe Council provides a means for community members to collaborate on fuel reduction projects.

Other fire safe councils have formed to address the potential of and community response to Wildland fires near their community (http://www.firesafecouncil.org/find/index.cfm). The small community of Colestine in Jackson county Oregon, also has a fire safe council called the Colstin (sic) Rural Fire District (http://crfd.org/wildlandfireprevention.htm). The council's geographic boundaries can be roughly described as: Just beyond Interstate 5 to the east, the Mt. Ashland ski road to the north, Cottonwood drainage to the west, and the California-Oregon border to the south. The fire council committee focuses on developed urban and suburban lands that are 10 acres in size or smaller, and which are grouped with other lots with similar characteristics. Owners of these lands will be required to reduce potentially flammable vegetation around structures and along driveways. In 2005, the council developed a Colestin & Hilt Community Wildfire Protection Plan http://www.crfd.org/CWPP_ (without_Appendices).pdf. Although not in the project area or in the Beaver Creek watershed, fuels reduction efforts in the project area may be of interest to the council. From their website, their concern about wildfire associated with California is noted:

> Through David Clarke, at the College of the Siskiyous, we received a **photo slide show** portraying other views of the devastation throughout the region. This was originally forwarded to him by OSU biologist Ann Kreager, who writes, "This is an excellent slide show depicting the California fires - ...Unbelievable to view especially for those of us from the area... from a biologist's perspective, it is wrenching." And it is. Be prepared. Click here to open. Left-click once to advance each photo. (PC users can also roll the mouse over the lower left corner for a pop-up menu; select 'Next' to advance each frame.)

Community-Social Aggregation	Population	Socio-economic condition (1 to 7)	Community Capacity condition (1 to 5)	Geographic distance to Beaver Creek watershed (at mouth of the Beaver Creek at the Klamath River and the top of the watershed at the ski area). The project area is in the mid watershed area and near the crest of the watershed.[1]
Klamath River (Happy Camp/Klamath River Aggregation)	445 (Klamath River community only)	4	3	1 mile to mouth of Beaver Creek 55 miles to the Mt Shasta Ski area in winter
Happy Camp (Happy Camp/Klamath River Aggregation)	1,277 people were counted during the year 2000 census in Happy Camp. Aggregation population: 2,876	4	3	47 miles HC to mouth of Beaver Creek 72 miles to Ashland Ski area
Yreka	7,971	4	5	28.4 miles to mouth of Beaver Creek 36 miles Mt Ashland Ski area
Hornbrook/Hilt	717	5	1	28.8 miles to mouth of Beaver Creek 15 miles to Mt Ashland Ski area
Montague	(This is not a separate aggregation. It is included within the Yreka aggregation.)	n/a	n/a	36 miles to mouth of Beaver Creek 42 miles to Mt Ashland Ski Area
Colestine	3,744	4	2	47.5 miles to mouth of Beaver Creek 10 miles to Mt Ashland ski Area
Ashland	17,588	5	5	45.4 miles to mouth of Beaver Creek 20 miles to Mt Ashland Ski area

[1] The sources of distances between communities/aggregations and the top and bottom of the Beaver Creek watershed were from http://www.ashlandinn.com/act.html, and yahoo.com driving directions, and Mt Ashland ski area websites)

Community-Social Aggregation	Population	Socio-economic condition (1 to 7)	Community Capacity condition (1 to 5)	Geographic distance to Beaver Creek watershed (at mouth of the Beaver Creek at the Klamath River and the top of the watershed at the ski area). The project area is in the mid watershed area and near the crest of the watershed.[1]
Ashland/Lincoln-Pinehurst (town of Pinehurst)	1,394	7	2	58.2 to mouth of Beaver Creek 32 miles to Mt Ashland ski area
Medford	57,387	4	5	58 miles to mouth of Beaver Creek 33 miles to Mt Ashland ski area
Nearest off-ramp on Highway 5	n/a	n/a	n/a	8 miles to Mt Ashland Ski Area
Nearest off-ramp on Highway 5	n/a	n/a	n/a	21.1 miles to mouth of Beaver Creek

The project area is also associated with the Hornbrook/Hilt aggregation, the Yreka aggregation, the Ashland aggregation, and the Ashland/Lincoln-Pinehurst aggregation. The Hornbrook/Hilt aggregation has a low community capacity, with a medium-high socioeconomic condition -- one of the highest in the subregion, perhaps because some workers commute to Medford and Yreka. For the Yreka aggregation, good planning 20 years ago has led to sound physical infrastructure in Yreka today (socioeconomic condition is medium, with a high community capacity condition). Fire services and law enforcement are also good. Based on the 1990 census data, 62 percent of residents over 25 years of age have only a high school education and/or some college (but no degree), which is average for the region. Current education levels are likely to have increased with the recent opening of the new hospital. The hospital and new YMCA exemplify the ability of the community to work together and accomplish projects. The poverty rate is second lowest in the subregion at nine percent. Yreka, the county seat, has little divisiveness, and groups in the community, such as the chamber of commerce and city council, among others, work well. The Process Technology Training Center at the College of the Siskiyous is focused on developing a more skilled work force. Yreka's adjacency to Interstate 5 attracts commercial traffic, but retail sales are limited due to the relatively close proximity to Medford (http://www.inforain.org/indicators/klamath/pg17.htm).

The Ashland aggregation rates medium high for socioeconomic status and high for community capacity. Ashland is a community with a vision for its future. It has a skilled and highly educated populace that drives a diverse economy that includes tourism and education as well as some secondary wood products manufacturing. Two-thirds of all workers in Ashland have management related occupations. While there is a manufacturing sector in the local economy, only eight percent of workers have occupations as operators, fabricators or laborers, the fifth lowest percentage in this category in the Klamath region. Non-profit organizations have a significant presence in Ashland, with 11 percent of workers employed by non-profit groups (http://www.inforain.org/indicators/klamath/pg16.htm). There is also a community aggregation along the I-5 corridor, the Ashland/Lincoln-Pinehurst aggregation with a population of 1,394). Ashland/Lincoln-Pinehurst is a rural corridor. The area lacks infrastructure and is primarily a bedroom community of Ashland. This aggregation has one of the highest socioeconomic status scores in the region, yet has only a medium low capacity score. Like neighboring Ashland, residents are well educated, and have the fifth highest education score in the Klamath region. Thirty-one percent of residents 25 years of age or more have a four-year college degree or higher graduate level education. The poverty rate is low at seven percent, and there are no children under the age of 15 living in households receiving public assistance income. Some residents are involved in resource related work, and others are service workers and artists who commute to Ashland for work. While human capital in this aggregation is high, physical capital is limited and social capital in turmoil. Community cohesion is constrained by conflict between liberals and conservatives, although recent efforts to work collaboratively have occurred. The Pinehurst School, with 30 students in eight grades, is in financial trouble. With a high cost per student ratio, the school cannot continue to operate on limited state funding. Residents are banding together to keep the school operating. The Friends of Greensprings Association is also striving to enhance the local community.

The area of influence for broader social effects is the seven-county area described on page 3-134 of the Forest Plan Environmental Impact Statement (USDA FS 1995b). Traditionally, the Forest's contribution to job creation within the area of influence was primarily related to timber production. People from the seven-county area contract for work in the area surrounding the project including,

but not limited to, logging, planting, precommercial thinning, masticating, laborers, light industry, non- profit groups, and services related to those endeavors. These people spend money on gas and food, which creates a small multiplier effect in Siskiyou County.

With the reduction in timber outputs that occurred over the last several decades, in particular the reductions associated with the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (Northwest Forest Plan) and Forest Plan, the Forest Service has expanded its role and tourism makes up a increased portion of revenue (in Ashland, for example). Grants are important in the seven-county area of influence. Since 1992, community development and similar programs intended to help build local capacity and accomplish resource goals have contributed significantly to economic stability and growth in Siskiyou and the surrounding counties. These programs include Jobs-in-the-Woods, the Rural Community Assistance program, Community Economic Revitalization Team, National Fire Plan Grant programs, and Payments to States Title II. The Forest also contributes to the job training and retraining programs that help the workforce in the seven-county area adjust to changes in resource products, markets, and skills. Refer to Forest Monitoring Reports (USDA FS 2001, 2002a, 2003, 2004, 2005) for additional information; they are available on the Forest web page at the following web address: *www.fs.fed.us/r5/klamath/projects/forestmanagement/*

Irreversible and Irretrievable Commitment of Resources

Irreversible commitment of resources refers to a loss of non-renewable resources, such as mineral extraction, heritage (cultural) resources, or to those factors which are renewable only over long time spans or at great expense, or to resources that have been destroyed or removed. No irreversible commitments of resources were identified for the Project.

Irretrievable commitment applies to losses that are temporary, such as use of renewable natural resources. The production lost would be irretrievable, but the action would not be irreversible. Under the No Action Alternative, there would be an irretrievable commitment of forest vegetation in the event of a wildfire. Under the Action Alternatives, risk of wildfire and subsequent loss of forest vegetation will be reduced. Vegetation removed as commodity byproducts of restoration and fuels treatments would constitute loss of production of individual trees or groups of trees but would not result in loss of productivity of entire stands of vegetation. Functioning of forest habitats will continue and conditions are expected to improve (achieve late-successional conditions sooner) within several decades. Under the action alternatives there would be an irretrievable loss of individual trees or groups of trees but not of forest conditions. This impact is in accordance with the management goals and objectives of habitat restoration and hazardous fuel reduction treatments.

Energy Requirements, Conservation Potential, Depletable Resource Requirements

Consumption of fossil fuels will occur with the action alternatives during logging and hauling timber and during the decommissioning of roads. No unusual energy requirements are included nor do opportunities exist to conserve energy at a large scale. With the proper application of the Forest Plan standards and guidelines for soils, soil productivity will be conserved; supporting information can be found in the Soil Report. The project was developed, in part, to promote the conservation and recovery of late-seral dependent wildlife species, such as the northern spotted owl.

Prime Farmland, Rangeland, and Forest Land

The project area does not contain any prime farmland or rangeland. Prime forest land does not apply within the National Forest System.

Possible Conflicts with Other Land Use Plans

The action alternatives are entirely on National Forest System land. The large amount of private land within the 5th field watershed and the small amount within the project area are generally managed for timber production and grazing, so conflicts are not likely to occur. The action alternatives are not in conflict with planning objectives for Siskiyou County or local tribes.

Other Required Disclosures

NEPA at 40 CFR 1502.25(a) directs "to the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with …other environmental review laws and executive orders."

Consultation with National Oceanic and Atmospheric Administration Fisheries and the United States Fish and Wildlife Service is ongoing and will be completed as required by the Endangered Species Act. As no water impoundments or diversions are proposed, the Forest is not required to consult with the Fish and Wildlife Service under the Fish and Wildlife Coordination Act.

No properties eligible for the National Register of Historic Places will be affected. No consultation under the National Historic Preservation Act is required.