Although unquantifiable, the cumulative effect of Alternative B or C in combination with ongoing and/or foreseeable future activities would be a reduction in the number of dead trees (i.e. hazard trees) adjacent to roads and a reduced maintenance need over the next 25 years (P.R., Vol. 4, Recreation).

3.5 Wild and Scenic Rivers

This section of the document discusses the existing conditions of wild and scenic rivers, as well as the effects of the various alternatives on those resources. The Wild and Scenic Rivers Act of 1968 directs the Forest Service to determine which river segments have Outstanding Remarkable Values (ORVs) and to recommend to Congress those determined suitable for inclusion in the National Rivers System. This process is accomplished through agency policy related to the Wild and Scenic Rivers Act that requires rivers identified as potential Wild and Scenic Rivers to be evaluated as to their eligibility, with the findings documented in the Forest Plan. Once deemed eligible, segments must have a suitability study completed to determine if they can be recommended to Congress for inclusion in the National Rivers System.

The Forest Service, acting on behalf of the Secretary of Agriculture, recommends rivers to Congress for designation under the Wild and Scenic Rivers Act. Any Wild and Scenic River recommendation in a Forest Plan is a preliminary administrative recommendation that will receive further review and possible modification by the Chief of the Forest Service, the Secretary of Agriculture, and the President of the United States. Congress has the authority to make final decisions on the designation of rivers as part of the Wild and Scenic Rivers System.

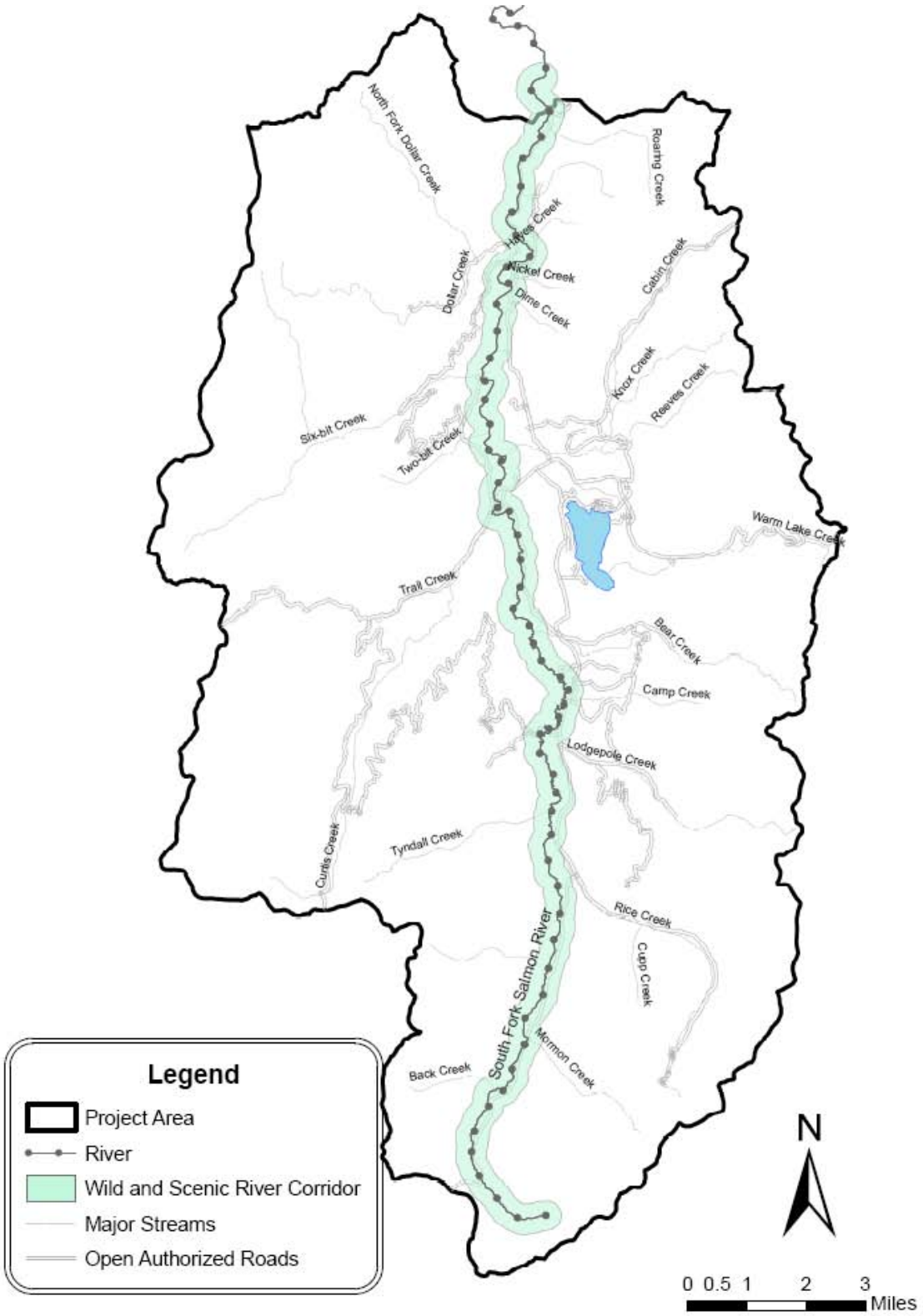
Designation of a river under the Wild and Scenic Rivers Act affords the river certain legal protection from development that would impact its ORVs and provides a mechanism for management of river resources. The principle effect of the Act is to preclude or severely limit the construction of dams and other significant water resources projects that might affect river values. A study river is a river segment and the adjacent corridor within a quarter mile of its banks that is identified for study as a potential addition to the National Wild and Scenic Rivers System (36CFR 297.3). Pending designation by Congress, management direction requires protection of the river segment from activities that could diminish or degrade its potential classification or eligibility.

The Wild and Scenic Rivers Act provides for three classifications: Wild, Scenic, and Recreational. A Wild river is one that is remote and in a relatively undisturbed physical setting. A Scenic river may be accessible by road and may have a fair amount of development in its corridor, but intrusions are minor and largely unnoticeable by someone within the river corridor. A Recreational river has considerable development in its corridor and easy river access, but it is often the kind of development that enhances river recreation such as campgrounds and boat launches.

Appendix J (*Wild and Scenic Rivers Suitability Study Report*) of the Final EIS for the Southwest Idaho Ecogroup Land and Resource Management Plans documents the suitability study for five rivers. The *Wild and Scenic Rivers Suitability Study Report* concluded that the 77 mile stretch of Segment 1 of the South Fork Salmon River (SFSR) is suitable for designation with a recommended classification of Recreational. As displayed in Figure 3-12, the SFSR and its associated ¼ mile wide corridors run through the center of the 103,804 acre project area.

Although the map on page III-316 of the Forest Plan portrays that Management Prescription Category (MPC) 2.1 occurs within the project area, discussions on page III-83 of the Forest Plan disclose that MPC 2.1 applies only to those areas that have been Congressionally “designated” as Wild, Scenic, or Recreational Rivers. The footnote on page III-83 of the Forest Plan goes on to explain that eligible or suitable rivers are provided similar emphasis as designated rivers, but are not assigned to this MPC. Since that segment of the SFSR within the project area has not been designated by Congress, MPC 2.1 does not apply. Nevertheless, management direction (i.e. standards and guidelines) for this suitable segment of the river were developed, and are applicable, to help retain the free-flowing status, classification, and outstandingly remarkable values.

Figure 3-12 Wild and Scenic River Corridor



The Forest Plan identifies six outstandingly remarkable values that make Segment 1 of the SFSR eligible for inclusion in the National Wild and Scenic Rivers System. The following discussions summarize those values as described in the Forest Plan for the entire 77 mile length, the majority of which occurs downstream of the analysis area.

Fisheries – The SFSR has an important anadromous fishery, providing major spawning and rearing habitat. The river supports wild summer Chinook salmon and wild steelhead trout. This population of steelhead includes some of the largest individuals in North America. The river also supports bull trout and westslope cutthroat trout.

Botanical – The river corridor contains significant populations of endemic plant species that are considered rare. Populations of giant helliborine orchid can be found near hot springs and cool springs, and in canyon grasslands. The rare Idaho fescue community, which occurs within the river's corridor, is an important indicator species for native grassland succession and maintenance related to fire cycles. Yew trees present along the 77 mile segment of the river are considered to be at the edge of their geographical range.

Scenic – The upper reaches of the SFSR flows through highly scenic meadow and timber landscapes. The middle and lower reaches flow through a highly scenic and deeply dissected canyon within the granitic Idaho batholith. Past wildfires have affected the scenic vistas along the river corridor creating large visual openings, but have not lowered the outstandingly remarkable scenic value. Gorges, rock outcrops, and cliffs that contrast with the river below, provide incredible vistas. The river flows over rocks and boulders then cascades over impressive rapids in some locations. Rustic ranches can be found along some private inholdings along the river corridor, adding to the scenic appeal.

Geology – Hot springs, canyons, oxbows, fossils, and outstanding fluvial erosion features are located along the river corridor.

Cultural Resources – Over 60 cultural properties have been identified within the SFSR area. Five properties are listed on the National Register of Historic Places – four of these are related to 19th century Chinese settlement, and one property is a prehistoric archaeological site that also has Forest Service history. The historic ghost town of Knox Ranch is also within the corridor.

Recreation – The SFSR has outstanding white-water boating and nationally recognized fishing opportunities during premier steelhead and Chinook salmon seasons. The river corridor also provides recreation opportunities that include hunting, hiking, camping, and snowmobiling. The many hot springs along the river corridor are beautiful and provide the visitor with a remote soaking experience.

3.5.1 Environmental Consequences Specific to Alternative A

This alternative does not propose any changes to the current management of the area. This alternative would maintain the river's eligibility as a potential addition to the National Wild and Scenic Rivers System. Its recommendation in the Forest Plan's Record of Decision as suitable for inclusion in the National Wild and Scenic Rivers System would not be affected. The free-flowing characteristic of the river would not be altered, nor would the Recreational classification of this river segment be affected. The outstandingly remarkable values (ORVs) would be maintained (P.R., Vol. 5, Wild and Scenic).

3.5.2 Environmental Consequences Specific to Alternative B

This alternative would maintain the river's eligibility as a potential addition to the National Wild and Scenic Rivers System. Its recommendation in the Forest Plan's Record of Decision as suitable for inclusion in the National Wild and Scenic Rivers System would not be affected. The free-flowing characteristic of the river would not be altered, nor would the Recreational classification of this river segment be affected. The outstandingly remarkable values (ORVs) would be maintained (P.R., Vol. 5, Wild and Scenic).

Fisheries – As discussed in detail in Section 3.12 of this chapter, Alternative B may affect but is not likely to adversely affect Chinook salmon or their designated critical habitat, steelhead trout or their designated critical habitat, or bull trout, and; may impact individuals but would not likely contribute to a trend towards federal listing or loss of viability to the population or species of westslope cutthroat trout (P.R., Vol. 12, Fisheries).

Botanical – As disclosed in Section 3.2.11 of this chapter, Alternative B may affect but is not likely to adversely affect *Spiranthes diluvialis* and may impact individuals or habitat but would not likely contribute to a trend towards Federal Listing or cause a loss of viability to the population or species for *Botrychium lineare, Botrychium simplex, Botrychium crenulatum, Botrychium multifidum, Botrychium virginianum, Douglasia idahoensis, Lewisia sacajaweana*, *Epipactis gigantean*, or *Allotropa virgata* (P.R., Vol. 2, TES Plants).

Scenic – The scenic values would be maintained along that length of the river corridor within the analysis area. The key scenic elements such as the deeply dissected canyon landforms, the gorges, rock outcrops, and cliffs that contrast with the river, and the river itself, would not be altered by this project. These elements that are integral components of the outstandingly remarkable scenic values would be maintained (P.R., Vol. 6, Visuals).

Large portions of the foreground viewing distance within this corridor experienced high levels of tree mortality as a result of the 2007 wildfire. The removal of fire-killed and imminently dead trees and ground-based skidding in the outer limits of the foreground viewing distance would result in visual alterations in the form of tree stumps, slash, and disturbed soil but the majority of these alterations would not be visible from the river itself. Although the visual effects of salvage activities would be noticeable over the next few years, it is expected that the wildfire effects would continue to dominate. Retention of smaller diameter sub-merchantable trees (i.e. <8" dbh) throughout these harvest units, retention of trees of all sizes within one site potential tree height of streams unless upslope of open roads, and the removal of harvest-related slash from these units (Section 2.4.3.2), would prevent the salvage harvest from dominating the viewshed. In addition, the visual effects of ground disturbance would diminish considerably within two to three years as the post-fire flush of herbaceous and shrub growth occurs. The reduced VQO of foreground partial retention to accommodate public safety needs (SCST02, Forest Plan, pg. III-67) would be met (P.R., Vol. 6, Visuals).

Falling and retention of trees on site that are greater than or equal to 8 inches dbh would have little effect on the viewshed along the SFSR corridor. Under this alternative, this prescription would be employed on narrow strips of land extending 10 to 50 feet upslope of the #474.2 road, and generally running parallel to the road for distances of 200 to 300 feet. Given the narrow linear nature of acres affected by this treatment and the fact that affected acres are not contiguous, this treatment would not dominate the viewshed along this route. The reduced VQO of foreground partial retention would be met for the SFSR and, given the minor length of the river corridor affected, the scenic ORV for the 77 mile stretch of Segment 1 of the SFSR, as-a-whole, would be maintained (P.R., Vol. 6, Visuals; P.R., Vol. 5, Wild and Scenic).

Geology – Known hot springs along the banks of the SFSR are not within nor are they immediately adjacent to proposed activities and would not be affected by this alternative (P.R., Vol. 5, Wild and Scenic).

Cultural Resources – This alternative would have no direct or indirect effects on historically significant sites. Previously identified sites would be protected under this alternative. The State Historic Preservation Officer has reviewed the resource report and concurred with the no adverse effects determination. Contract provisions that would halt all degrading activities would be included with this alternative to prevent adverse impacts to any unknown sites discovered during implementation (P.R., Vol. 8, Cultural Resources).

Recreation – That stretch of the river within the analysis area is not used by white-water enthusiasts due to its small size and lack of challenge (i.e. flat-water), therefore this alternative would have no impact on this recreational use (P.R., Vol. 5, Wild and Scenic).

This alternative does not propose any activities along that section of the SFSR where salmon fishing is permitted or where the majority of these fishermen camp. Salmon fishing is not permitted upstream of Warm Lake Highway (FH22) and proposed harvest units north of FH22 are some distance away from the river. Given the influx of fishermen and the large volume of associated traffic on open roads, the impact of additional noise resulting from this alternative would be inconsequential (P.R., Vol. 5, Wild and Scenic).

Although some hunting may occur within the ¼ mile river corridor within the analysis area, the presence of open roads paralleling the river and the effects of the 2007 wildfire likely discourages most hunters. This alternative is expected to have a negligible effect on hunting within the analysis area (P.R., Vol. 5, Wild and Scenic).

During active harvest operations (up to two years), users of open authorized roads and dispersed campsites would be displaced by harvest activities in the analysis area. However, harvest activities along any one road would not be expected to last more than a couple of weeks and therefore would be of a temporary nature. Frequent users of these roads and/or dispersed campsites would likely take advantage of similar opportunities on other road systems in the area (P.R., Vol. 4, Recreation).

Design features associated with this alternative (Section 2.4.2.2) prohibit plowing of snow within the analysis area. Given this design feature and the fact that proposed activities would not occur during the winter months when snowmobiling conditions are ideal, this alternative would not be expected to have noticeable effects on snowmobiling activities (P.R., Vol. 4, Recreation).

3.5.3 Environmental Consequences Specific to Alternative C

This alternative would maintain the river's eligibility as a potential addition to the National Wild and Scenic Rivers System. Its recommendation in the Forest Plan's Record of Decision as suitable for inclusion in the National Wild and Scenic Rivers System would not be affected. The free-flowing characteristic of the river would not be altered, nor would the Recreational classification of this river segment be affected. While there would be a one mile section where the scenic outstandingly remarkable values (ORVs) would be diminished, overall, the ORVs would be maintained along the 77 mile stretch of Segment 1 of the SFSR (P.R., Vol. 5, Wild and Scenic).

Fisheries – As discussed in detail in Section 3.12 of this chapter, Alternative C may affect but is not likely to adversely affect Chinook salmon or their designated critical habitat, steelhead trout or their designated critical habitat, or bull trout, and; may impact individuals but would not likely contribute to a trend towards federal listing or loss of viability to the population or species of westslope cutthroat trout (P.R., Vol. 12, Fisheries).

Botanical – As disclosed in Section 3.2.11 of this chapter, Alternative C may affect but is not likely to adversely affect *Spiranthes diluvialis* and may impact individuals or habitat but would not likely contribute to a trend towards Federal Listing or cause a loss of viability to the population or species for *Botrychium lineare, Botrychium simplex, Botrychium crenulatum, Botrychium multifidum, Botrychium virginianum, Douglasia idahoensis, Lewisia sacajaweana*, *Epipactis gigantean*, or *Allotropa virgata* (P.R., Vol. 2, TES Plants).

Scenic – For the most part, the scenic values would be maintained along that length of the river corridor within the analysis area. The key scenic elements such as the deeply dissected canyon landforms, the gorges, rock outcrops, and cliffs that contrast with the river, and the river itself, would not be altered by this project. These elements that are integral components of the outstandingly remarkable scenic values would be maintained.

Large portions of the foreground viewing distance within this corridor experienced high levels of tree mortality as a result of the 2007 wildfire. The removal of fire-killed and imminently dead trees and ground-based skidding in the outer limits of the foreground viewing distance would result in visual alterations in the form of tree stumps, slash, and disturbed soil but the majority of these alterations would not be visible from the river itself. Although the visual effects of salvage activities would be noticeable over the next few years, it is expected that the wildfire effects would continue to dominate. Retention of smaller diameter sub-merchantable trees (i.e. <8" dbh) throughout these harvest units, retention of trees of all sizes within one site potential tree height of streams unless upslope of open roads, and the removal of harvest-related slash from these units (Section 2.4.3.3), would prevent the salvage harvest from dominating the viewshed. In addition, the visual effects of ground disturbance would diminish considerably within two to three years as the post-fire flush of herbaceous and shrub growth occurs. The reduced VQO of foreground partial retention to accommodate public safety needs (SCST02, Forest Plan, pg. III-67) would be met (P.R., Vol. 6, Visuals).

Falling and retention of trees on site that are greater than or equal to 8 inches dbh would likely dominate the viewshed along roughly one mile common to both the #474.2 road and the South Fork Salmon River corridor. Under this alternative, this prescription would be employed on strips of land extending 200 feet upslope of the #474.2 road, and in some locations running parallel to the road for distances of close to one mile. While the appearance on these affected acres would eventually emulate untreated acres that burned at a similar intensity, the fall rate on untreated acres would be gradual, with an estimated 75 to 85 percent of the fire-killed trees falling over a period of 15 years. In comparison, falling and retention on site of an estimated 50 trees/acre under Alternative C would occur over a period of a few weeks and would result in a noticeable visual contrast with untreated acres and harvested acres. The reduced VQO of foreground partial retention would likely <u>not</u> be met along roughly one mile of the SFSR (P.R., Vol. 6, Visuals). However, given the minor length of the river corridor affected, the scenic ORV for the 77 mile stretch of Segment 1 of the SFSR, as-a-whole, would be maintained (P.R., Vol. 5, Wild and Scenic).

Geology – Known hot springs along the banks of the SFSR are not within nor are they immediately adjacent to proposed activities and would not be affected by this alternative (P.R., Vol. 5, Wild and Scenic).

Cultural Resources – This alternative would have no direct or indirect effects on historically significant sites. Previously identified sites would be protected under this alternative. The State Historic Preservation Officer has reviewed the resource report and concurred with the no adverse effects determination. Contract provisions that would halt all degrading activities would be included with this alternative to prevent adverse impacts to any unknown sites discovered during implementation (P.R., Vol. 8, Cultural Resources).

Recreation – That stretch of the river within the analysis area is not used by white-water enthusiasts due to its small size and lack of challenge (i.e. flat-water), therefore this alternative would have no impact on this recreational use (P.R., Vol. 5, Wild and Scenic).

This alternative does not propose any activities along that section of the SFSR where salmon fishing is permitted or where the majority of these fishermen camp. Salmon fishing is not permitted upstream of Warm Lake Highway (FH22) and proposed treatment units north of FH22 are some distance away from the river. Given the influx of fishermen and the large volume of associated traffic on open roads, the impact of additional noise resulting from this alternative would be inconsequential (P.R., Vol. 5, Wild and Scenic).

Although some hunting may occur within the ¼ mile river corridor within the analysis area, the presence of open roads paralleling the river and the effects of the 2007 wildfire likely discourages most hunters. This alternative is expected to have a negligible effect on hunting within the analysis area (P.R., Vol. 5, Wild and Scenic).

During active harvest operations (up to two years), users of open authorized roads and dispersed campsites would be displaced by proposed activities in the analysis area. However, proposed activities along any one road would not be expected to last more than a couple of weeks and therefore would be of a temporary nature. Frequent users of these roads and/or dispersed campsites would likely take advantage of similar opportunities on other road systems in the area (P.R., Vol. 4, Recreation).

Design features associated with this alternative (Section 2.4.2.2) prohibit plowing of snow within the analysis area. Given this design feature and the fact that proposed activities would not occur during the winter months when snowmobiling conditions are ideal, this alternative would not be expected to have noticeable effects on snowmobiling activities (P.R., Vol. 4, Recreation).

3.5.4 Cumulative Effects

Given the lack of any direct or indirect effects on any outstandingly remarkable values (ORVs), the area used to assess cumulative effects was limited to the ¼ mile corridor along that stretch of the South Fork Salmon River within the 103,804 acre analysis area (Figure 3-12).

With the exception of a five acre parcel in the vicinity of Knox Ranch, the entire cumulative effects area is administered by the U.S. Forest Service. Since 1950 an estimated 7,208 acres have been harvested within the cumulative effects area. Historic records indicate that since 1910 roughly 67,853 acres within the cumulative effects area have been affected by wildfire, some of which overlap with harvested acres. Although the specific effects cannot be quantified, the existing conditions disclosed above reflect the impacts of those past activities as well as any recovery that has occurred since those events. Ongoing or foreseeable future activities occurring partially or entirely within this cumulative effects area that could add incrementally to impacts on this resource are listed below. Reference **Appendix B** for additional information and maps related to the cumulative effects analyses completed for this project.

Personal Use Firewood - Personal use firewood cutting is expected to continue into the foreseeable future and would likely reduce the quantity of fire-damaged trees within 100 to 200 feet of open roads.

Cabin Salvage, Knox Salvage, and South Fork Houselog Salvage I Sales – These three salvage sales, all under contract to the same Purchaser, were offered following the 2003 South Fork Wildfire. At this time the majority of the included timber has already been removed. However, the Purchaser is expected to continue to remove small amounts of fire-killed and imminently dead timber in 2008.

Power Salvage Sale – This salvage sale permits the removal of downed trees only from 66 acres within sections of the right-of-way of the overhead power line in the Warm Lake Basin. This contract is projected to terminate in July of 2008.

South Fork Campground Restoration Project – While still in the developmental phase, the objective of this project would be to minimize the fire-induced effects of the 2007 wildfire on the 10 acre South Fork Campground by removing hazard trees, planting conifers, and implementing other restorative activities. The environmental analysis for this project is tentatively scheduled to occur in 2008 with implementation in 2009 or 2010.

Tyndall Stolle Reforestation Project – This project consists of planting conifers on an estimated 4,127 acres that burned at a high or moderate intensity where competing vegetation is expected and/or where no seed source is present to facilitate natural regeneration. Planting activities are projected to occur in the spring and fall of 2008 and 2009.

Miscellaneous Recreational Activities – Numerous recreation-related uses in the area, such as church camps, hunting, camping, firewood cutting, and sightseeing, are expected to continue in the future.

SFSR Travel Management Project - While still in the developmental phase, the objective of this project would be to minimize undesirable impacts associated with poorly located dispersed campsites and authorized and unauthorized roads and/or trails causing resource damage, as well as to address under-sized culverts, fish passage barriers, and/or structures damaged by the 2007 wildfire in the South Fork Salmon River drainage. The environmental analysis for this project is tentatively scheduled to occur in 2008 with implementation in 2009 or 2010.

Sport Fishing for Salmon - The State of Idaho allows sport fishing of Chinook salmon in the South Fork Salmon River on a year to year basis depending on the number of returning fish. This season varies annually in length and the numbers of fish permissible to take, which indirectly influences the amount of use in the cumulative effects area.

Tribal Fishing for Salmon – Tribal members still exercise their treaty rights to fish for salmon in the South Fork Salmon River. In recent years, the salmon runs have increased due to hatchery-raised stock being released to supplement the wild runs. Similarly to sport fishing, the amount of tribal fishing in any given year influences the amount of use in the cumulative effects area.

Warm Lake Highway Reconstruction Project – The majority of this project was completed in the summer of 2007 and included repair and resurfacing of the Warm Lake Highway (FH22) from Big Creek Summit to its crossing of the South Fork Salmon River.

BAER Culvert Replacements – A number of culverts removed in the fall of 2007 as part of the Cascade Complex BAER project would be reinstalled in the summer of 2008.

Alternative A would not result in any direct, indirect, or cumulative effects on the river's outstandingly remarkable values or its potential eligibility.

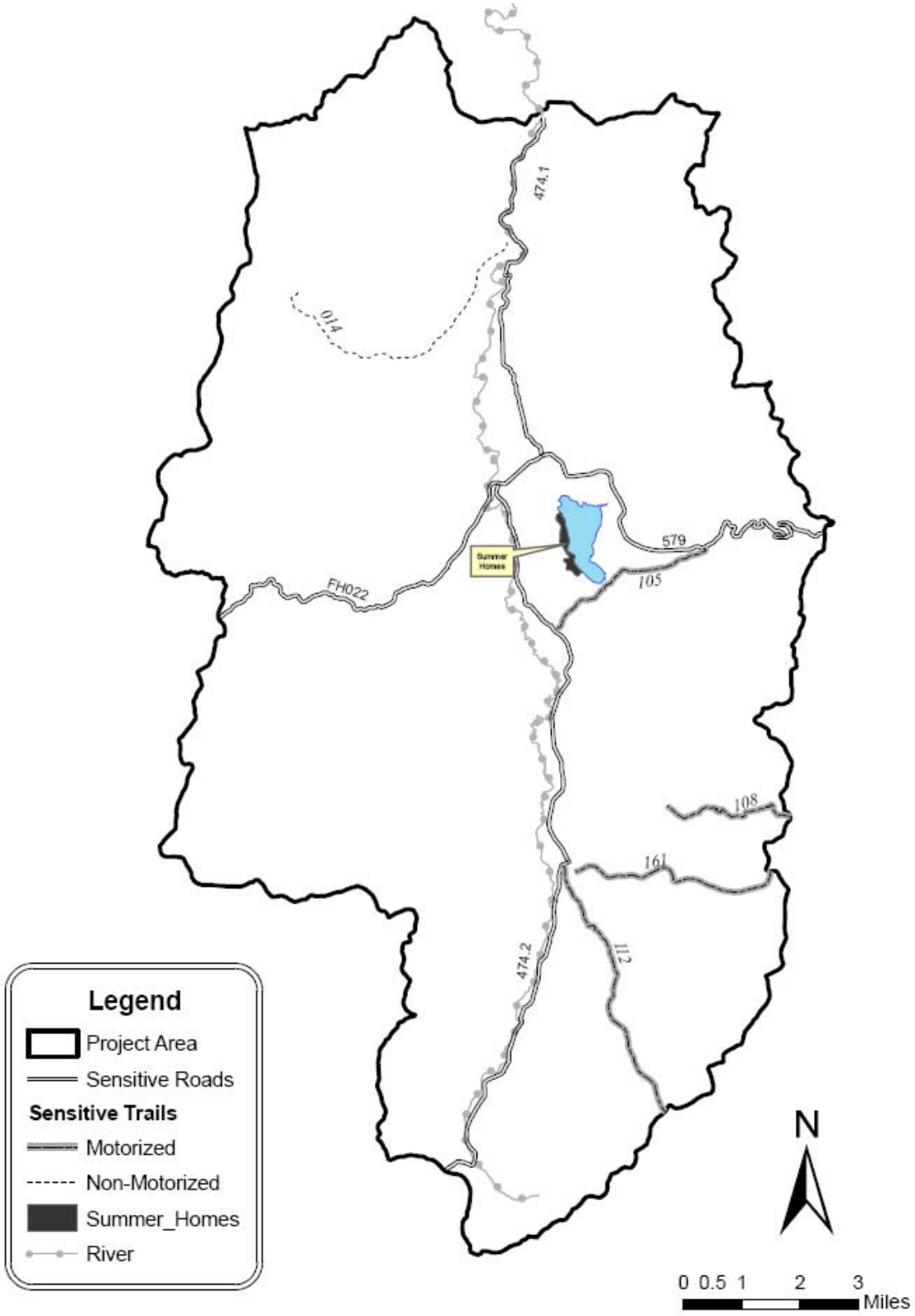
Alternative B, in combination with ongoing and/or foreseeable future activities, could result in minor and/or temporary effects on some of the river's outstandingly remarkable values. However, the river's eligibility as a potential addition to the National Wild and Scenic Rivers System would be maintained. Its recommendation in the Forest Plan's Record of Decision as suitable for inclusion in the National Wild and Scenic Rivers System would not be affected. The free-flowing characteristic of the river would not be altered, nor would the Recreational classification of the river corridor be affected. The ORVs would be maintained (P.R., Vol. 5, Wild and Scenic). Reference cumulative effects discussions in this document specific to fisheries, plant species of concern, the scenic environment, cultural resources, and recreation for additional information.

Alternative C, in combination with ongoing and/or foreseeable future activities, would result in minor and/or temporary effects on some of the river's outstandingly remarkable values. Specifically, there would be a one mile section where the scenic ORV would be diminished, but overall the ORV would be maintained along the 77 mile stretch of Segment 1 of the SFSR. The river's eligibility as a potential addition to the National Wild and Scenic Rivers System would be maintained. Its recommendation in the Forest Plan's Record of Decision as suitable for inclusion in the National Wild and Scenic Rivers System would not be affected. The free-flowing characteristic of the river would not be altered, nor would the Recreational classification of the river corridor be affected. The ORVs would be maintained (P.R., Vol. 5, Wild and Scenic). Reference cumulative effects discussions in this document specific to fisheries, plant species of concern, the scenic environment, cultural resources, and recreation for additional information.

3.6 Scenic Environment

This section of the document discusses the existing conditions and characteristics of the scenic environment within the project area, as well as the effects of the various alternatives on those resources. The analysis area used in this assessment consists of the 103,804 acre project area (Figure 3-13) as seen from sensitive viewing locations identified in the Forest Plan.

Figure 3-13 Sensitive Travel Routes and Use Areas



While most all National Forest lands can be viewed from high vista points or from aircraft, the esthetic concern varies along with the types of viewers, numbers of viewers, and the view duration. During the Forest Planning effort various visual quality objectives (VQOs) were established for seen areas. These VQOs function as indicators of allowable levels of induced change on the landscape. VQOs defined in the Forest Plan include:

Retention (R) - Provides for management activities that are not visually evident to the casual forest visitor.

Partial Retention (PR) - Management activities may be visible but remain subordinate to the characteristic landscape.

Modification (M) - Management activities may dominate the characteristic landscape, but must concurrently use natural, established form, line, color, and texture. Activities should appear as natural occurrences when viewed in foreground or middleground distances.

The distance from which a landscape is viewed has an affect on how much detail, pattern, color, line, and texture a viewer sees. To capture this difference, various distance zones are established from the sensitive viewing areas:

Foreground (Fg) - That portion of a view from the observer to ¼ to ½ mile from the observer. The limit of this zone is based upon distances at which textural details can be perceived.

Middleground (Mg) - That portion of a view from ¼ or ½ mile up to three to five miles from the observer. Texture is characterized by the masses of trees in stands of uniform tree cover.

Background (Bg) - The visible terrain beyond the foreground and middleground where individual trees are not visible but are blended into the total fabric of the stand. Also, that portion of a view between three to five miles from the observer, and as far as can be seen.

A third component of visual quality relates to the degree of variety (variety class) within a visual landscape. The more distinctive the variety class, the more restrictive the visual quality objective. In contrast, those landscapes with minimal variety usually have less restrictive VQOs.

The 103,804 acre analysis area occurs within Management Area 19. Page III-330 of the Forest Plan identifies visually sensitive travel routes or use areas within this management area and specifies the VQOs for those viewsheds. Table 3-11 discloses the visually sensitive travel routes or use areas that provide views into the proposed harvest units, and identifies their sensitivity levels, variety classes, and VQOs provided in the Forest Plan.

However, the Forest Plan does allow for modification of these VQOs under certain circumstances. Standard SCST02 allows for short-term reductions in VQOs to accommodate Burned Area Emergency Rehabilitation (BAER) projects, emergency needs for protection of investments, and public safety needs (Forest Plan, pg. III-67). Standard SCST02 goes on to state that when reducing VQOs, attempts should be made to meet the next highest objective at the closest viewer distance or most relevant distance.

Table 3-11 Visual Quality Objectives for Sensitive Travel Routes or Use Areas

Sensitive Route or Area	Sensitivity Level	Variety Class	Primary Visual Quality Objective
Warm Lake Summer Homes	1	Common	Fg Retention
Warm Lake Highway	1	Distinctive or Common	Fg Retention
South Fork Salmon River	1	Distinctive or Common	Fg Retention
Forest Road 474 to Rice Creek	1	Common	Fg Partial Retention
Forest Trail 105	1	Distinctive or Common	Fg Retention
Forest Trail 014, 112, 161, 108	2	Distinctive or Common	Fg Partial Retention

Fg – Foreground

As might be expected, the current landscape setting of the project area as viewed from sensitive travel routes or use areas is heavily dominated by the effects of the 2007 wildfire. However the visual condition varies from site to site depending upon the intensity of the wildfire in any particular location and the amount of resultant tree mortality. The following discussions describe the existing viewsheds as seen from the individual sensitive locations, and are specific to those viewing distances of concern.

Warm Lake Summer Homes – With the exception of an estimated 0.5 miles of the #427 road, the effects of the 2007 wildfire are not visible in the foreground from the summer homes due to a combination of vegetation and topographic features. Along that portion of the #427 road that is visible in the foreground viewing distance the fire intensity was generally low, occurred in a mosaic pattern, and resulted in very little tree mortality (P.R., Vol. 6, Visuals).

Warm Lake Highway - This road, also known as Forest Highway 22 (FH22), is a travel way of high visual sensitivity. The views in the foreground along this road from approximately one mile southwest of its intersection with road #474.2 east to Warm Lake Summit are dominated by the effects of the 2007 wildfire. While a few locations were unaffected by the wildfire, the overall visual character along this section of the road is one of a landscape that recently burned at a high intensity with extensive tree mortality (P.R., Vol. 6, Visuals).

South Fork Salmon River - Views into the foreground distance from the actual river and immediate riverbank vary considerably within the analysis area. Topographic features and/or dense vegetation tend to screen the views from the upper and lower reaches of the river. However roughly 1/3 of the river, located in the center of the analysis area, tends to meander through gentle terrain with relatively sparse conifer vegetation and extensive views of the foreground are provided. The effects of the 2007 wildfire vary considerably along the river. Fire intensity within the foreground viewing distance was generally high with few or no live trees remaining, while other areas burned at a moderate or low intensity (P.R., Vol. 6, Visuals).

Forest Road 474 to Rice Creek – Upon turning onto the #474.2 road from FH22, the first three miles run through an incised drainage that is dominated by mixed conifer stands that burned at a moderate intensity. The topography then gradually becomes gentler as the viewer travels south through relatively flat terrain dominated by lodgepole pine stands that reflect near 100 percent tree mortality for the majority of the remaining six miles (P.R., Vol. 6, Visuals).

Forest Trails 105, 014, 112, 161, and 108 – While burn intensity was generally high and tree mortality extensive, these trails also experienced low to moderate burn intensities in some locations. Given the effects of the wildfire, views into the foreground viewing distance are generally unobstructed along these trails (P.R., Vol. 6, Visuals).

3.6.1 Environmental Consequences Specific to Alternative A

This alternative does not propose any new management activities therefore no management-induced changes to the scenic resources would occur. The effects of the 2007 wildfire would continue to dominate the landscape appearance (P.R., Vol. 6, Visuals).

Over time, the landscape appearance will slowly change. The current blackened landscape will change over the next few years as grasses, herbs, and shrubs become established. Within five years fire-killed trees within the project area will begin falling to the ground, with the smaller diameter trees the first to fall as they gradually succumb to the forces of nature such as wind and decay. An estimated 75 to 85 percent of the dead trees will have fallen within 15 years, with most of the larger diameter dead trees falling by year 25. The scenic environment would continue to convey the visual effects of a burned landscape for both the short and long term time periods (P.R., Vol. 6, Visuals).

3.6.2 Environmental Consequences Specific to Alternative B

Implementation of this alternative would result in visible changes in most of the viewsheds. The amount of that change would vary depending upon the observer's position in the landscape, the specific burn conditions experienced in that particular viewshed, and the proposed treatment. Over time, the landscape appearance will slowly change. The current blackened landscape will change over the next few years as grasses, herbs, and shrubs become established. Within five years fire-killed trees within the project area will begin falling to the ground, with the smaller diameter trees the first to fall as they gradually succumb to the forces of nature such as wind and decay. An estimated 75 to 85 percent of the dead trees will have fallen within 15 years, with most of the larger diameter dead trees falling by year 25. The overall scenic environment would continue to convey the visual effects of a burned landscape for both the short and long term time periods (P.R., Vol. 6, Visuals).

In order to pursue this project's objective of reducing the hazard that fire-killed and imminently dead trees pose to users of open authorized roads, some VQOs associated with sensitive travel routes or use areas were reduced to the next highest objective in order to accommodate public safety needs (SCST02, Forest Plan, pg. III-67). After the reduction of some VQOs, this alternative would be consistent with Forest Plan direction related to visual quality (P.R., Vol. 6, Visuals).

Warm Lake Summer Homes – Given that little tree mortality occurred within the foreground viewing distance of these viewpoints, the removal of scattered fire-killed and imminently dead trees under this alternative would have a negligible effect on the scenic environment. The reduced VQO of foreground partial retention would be met (P.R., Vol. 6, Visuals).

Warm Lake Highway, South Fork Salmon River, & Forest Road 474 to Rice Creek – As explained above, large portions of the foreground viewing distances along these travelways experienced high levels of tree mortality as a result of the wildfire. The removal of fire-killed and imminently dead trees and ground-based skidding in the foreground would result in visual alterations in the form of tree stumps, slash, and disturbed soil. Although the visual effects of salvage activities in the foreground would be noticeable over the next few years, it is expected that the wildfire effects would continue to dominate. Retention of smaller diameter sub-merchantable trees (i.e. <8" dbh) throughout proposed harvest units, retention of trees of all sizes within one site potential tree height of streams unless upslope of roads, and the removal of harvest-related slash from these units (Section 2.4.3.2), would prevent the salvage harvest from dominating the viewshed along these routes. In addition, the visual effects of ground disturbance would diminish considerably within two to three years as the post-fire flush of herbaceous and shrub growth occurs. The reduced VQO of foreground partial retention would be met for Warm Lake Highway and the South Fork Salmon River, while the reduced VQO of foreground modification would be met for Forest Road #474.2 to Rice Creek (P.R., Vol. 6, Visuals).

Falling and retention of trees on site that are greater than or equal to 8 inches dbh would have little effect on the viewshed along these routes. Under this alternative, this prescription would be employed on an estimated 10 acres of narrow strips of land extending 10 to 50 feet upslope of roads, and generally running parallel to the road for distances of 200 to 1,600 feet. Given the narrow linear nature of acres affected by this treatment and the fact that these 10 acres occur as 26 different polygons distributed across the project area, this treatment would not dominate the viewshed along any of these routes. The reduced VQO of foreground partial retention would be met for Warm Lake Highway and the South Fork Salmon River, while the reduced VQO of foreground modification would be met for Forest Road #474.2 to Rice Creek (P.R., Vol. 6, Visuals).

Forest Trails 105, 014, 112, 161, and 108 – Since a maximum of 200 feet of any trail generally occurs within any given harvest unit, proposed harvest activities would have a negligible effect on the viewsheds as seen from these trails. Although the visual effects along the estimated 200 foot lengths would be noticeable over the next few years, the wildfire effects would continue to dominate the various viewsheds. The reduced VQO of foreground partial retention would be met for Trail #105, while the existing VQO of foreground partial retention would be met for the remaining trails (P.R., Vol. 6, Visuals).

Falling and retention of trees on site that are greater than or equal to 8 inches dbh would have little effect on the viewshed of Trail #105. Under this alternative, this prescription would be employed within a narrow strip of land extending 10 to 50 feet upslope of road #579, and likely would be unnoticeable from this trail. The reduced VQO of foreground partial retention would be met (P.R., Vol. 6, Visuals).

3.6.3 Environmental Consequences Specific to Alternative C

Implementation of this alternative would result in visible changes in most of the viewsheds. The amount of that change would vary depending upon the observer's position in the landscape, the specific burn conditions experienced in that particular viewshed, and the proposed treatment. Over time, the landscape appearance will slowly change. The current blackened landscape will change over the next few years as grasses, herbs, and shrubs become established. Within five years fire-killed trees within the project area will begin falling to the ground, with the smaller diameter trees the first to fall as they gradually succumb to the forces of nature such as wind and decay. An estimated 75 to 85 percent of the dead trees will have fallen within 15 years, with most of the larger diameter dead trees falling by year 25. The overall scenic environment would continue to convey the visual effects of a burned landscape for both the short and long term time periods (P.R., Vol. 6, Visuals).

In order to pursue this project's objective of reducing the hazard that fire-killed and imminently dead trees pose to users of open authorized roads, some VQOs associated with sensitive travel routes or use areas were reduced to the next highest objective in order to accommodate public safety needs (SCST02, Forest Plan, pg. III-67). However, even after reducing the VQOs to accommodate public safety needs, some VQOs would not be met under this alternative. The Responsible Official has determined that implementation of this alternative would require a non-significant amendment of the Forest Plan in order to allow proposed activities to dominate the viewshed along roughly two miles of sensitive routes (Warm Lake Highway and the South Fork Salmon River). Should this alternative be selected, a non-significant Forest Plan amendment would be prepared and attached to the decision document for this project (P.R., Vol. 6, Visuals).

Warm Lake Summer Homes – Given that little tree mortality occurred within the foreground viewing distance of these viewpoints, the removal of scattered fire-killed and imminently dead trees under this alternative would have a negligible effect on the scenic environment. The reduced VQO of foreground partial retention would be met (P.R., Vol. 6, Visuals).

Warm Lake Highway, South Fork Salmon River, & Forest Road 474 to Rice Creek – As explained above, large portions of the foreground viewing distances along these travelways experienced high levels of tree mortality as a result of the wildfire. The removal of fire-killed and imminently dead trees and ground-based skidding in the foreground would result in visual alterations in the form of tree stumps, slash, and disturbed soil. Although the visual effects of salvage activities in the foreground would be noticeable over the next few years, it is expected that the wildfire effects would continue to dominate. Retention of smaller diameter sub-merchantable trees (i.e. <8" dbh) throughout proposed harvest units, retention of trees of all sizes within one site potential tree height of streams unless upslope of roads, and the removal of harvest-related slash from these units (Section 2.4.3.2), would prevent the salvage harvest from dominating the viewshed along these routes. In addition, the visual effects of ground disturbance would diminish considerably within two to three years as the post-fire flush of herbaceous and shrub growth occurs. The reduced VQO of foreground partial retention would be met for Warm Lake Highway and the South Fork Salmon River, while the reduced VQO of foreground modification would be met for Forest Road #474.2 to Rice Creek (P.R., Vol. 6, Visuals).

Falling and retention of trees on site that are greater than or equal to 8 inches dbh would likely dominate the viewshed along roughly one mile of Warm Lake Highway and another one mile common to both the #474.2 road and the South Fork Salmon River corridor. Under this alternative, this prescription would be employed on an estimated 422 acres with affected areas extending 200 feet upslope of roads, and in some locations running parallel to the road for distances of close to one mile. While the appearance on

these affected acres would eventually emulate untreated acres that burned at a similar intensity, the fall rate on untreated acres would be gradual, with an estimated 75 to 85 percent of the fire-killed trees falling over a period of 15 years. In comparison, falling and retention on site of an estimated 50 trees/acre under Alternative C would occur over a period of a few weeks and would result in a noticeable visual contrast with untreated acres and harvested acres. The reduced VQO of foreground partial retention for Warm Lake Highway and the South Fork Salmon River would likely not be met along roughly two miles of these routes. The reduced VQO of foreground modification for the #474.2 road to Rice Creek would be met (P.R., Vol. 6, Visuals).

Forest Trails 105, 014, 112, 161, and 108 – Since a maximum of 200 feet of any trail generally occurs within any given harvest unit, proposed harvest activities would have a negligible effect on the viewsheds as seen from these trails. Although the visual effects along the estimated 200 foot lengths would be noticeable over the next few years, the wildfire effects would continue to dominate the various viewsheds. The reduced VQO of foreground partial retention would be met for Trail #105, while the existing VQO of foreground partial retention would be met for the remaining trails (P.R., Vol. 6, Visuals).

Falling and retention on site of an estimated 50 trees/acre greater than or equal to 8 inches dbh would likely dominate the viewshed along roughly 200 feet of Trail #105 and another 200 feet of Trail #108. However, given the minor segments of trails affected, the reduced VQO of foreground partial retention would be met for Trail #105, while the existing VQO of foreground partial retention would be met for Trail #108 (P.R., Vol. 6, Visuals).

3.6.4 Cumulative Effects

Given the lack of any direct or indirect effects on visual resources beyond the project area, the area used to assess cumulative effects was limited to the 103,804 acre analysis area (Figure 3-13).

With the exception of a five acre parcel in the vicinity of Knox Ranch, the entire cumulative effects area is administered by the U.S. Forest Service. Since 1950 an estimated 7,208 acres have been harvested within the cumulative effects area. Historic records indicate that since 1910 roughly 67,853 acres within the cumulative effects area have been affected by wildfire, some of which overlap with harvested acres. Although the specific effects cannot be quantified, the existing conditions disclosed above reflect the impacts of those past activities as well as any recovery that has occurred since those events. Ongoing or foreseeable future activities within this cumulative effects area that could add incrementally to impacts on this resource are listed below. Reference **Appendix B** for additional information and maps related to the cumulative effects analyses completed for this project.

Cabin Salvage, Knox Salvage, and South Fork Houselog Salvage I Sales – These three salvage sales, all under contract to the same Purchaser, were offered following the 2003 South Fork Wildfire. At this time the majority of the included timber has already been removed. However, the Purchaser is expected to continue to remove small amounts of fire-killed and imminently dead timber in 2008.

Power Salvage Sale – This salvage sale permits the removal of downed trees only from 66 acres within sections of the right-of-way of the overhead power line in the Warm Lake Basin. This contract is projected to terminate in July of 2008.

South Fork Campground Restoration Project – While still in the developmental phase, the objective of this project would be to minimize the fire-induced effects of the 2007 wildfire on the 10 acre South Fork Campground by removing hazard trees, planting conifers, and implementing other restorative activities. The environmental analysis for this project is tentatively scheduled to occur in 2008 with implementation in 2009 or 2010.

Shoreline Fuels Reduction Project – This project consists of mechanical mulching of 32 acres of sub-merchantable trees and hand thinning and piling of 77 acres of sub-merchantable trees, all in the vicinity of the Shoreline Campground. Implementation is scheduled to occur in 2008.

Warm Lake Highway Reconstruction Project – The majority of this project was completed in the summer of 2007 and included repair and resurfacing of the Warm Lake Highway (FH22) from Big Creek Summit to its crossing of the South Fork Salmon River.

Alternative A would not result in any direct, indirect, or cumulative effects on visual quality. The effects of the 2007 wildfire would continue to dominate the landscape appearance (P.R., Vol. 6, Visuals).

Alternative B in combination with past, ongoing, and foreseeable future activities would introduce some degree of additional visual change, primarily in the form of reduced densities of dead trees. However, regardless of this change, the effects of the 2007 wildfire would continue to dominate the landscape appearance (P.R., Vol. 6, Visuals).

Alternative C in combination with past, ongoing, and foreseeable future activities would introduce some degree of additional visual change, primarily in the form of reduced densities of dead trees on most acres, and a noticeable increase in downed material along segments of scenic routes. However, regardless of this change, the effects of the 2007 wildfire would continue to dominate the landscape appearance (P.R., Vol. 6, Visuals).

3.7 Air Quality

This section of the document describes the characteristics and relevant rules, regulations, and laws related to air quality. This section also discloses the effects that the alternatives presented in Chapter 2 would have on air quality.

Air pollution generated by Forest activities is temporary and widely separated by vast, complex terrain. The largest source of air pollutants are smoke from wildfire and prescribed fire, and dust from vehicle travel on unpaved roads. These effects can be compounded by similar, simultaneous activities occurring on surrounding national forest and private lands.

The Federal Clean Air Act amendments of 1977 require the Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to protect human health and welfare. The EPA has established NAAQS for six air pollutants; carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, lead, and particulate matter. As they relate to this project, particulate matter associated with smoke emissions is the pollutant of most concern.

The NAAQS for PM-10 (particulate matter less than 10 micrometers in aerodynamic diameter) were established in 1987 and updated in December of 2006. The NAAQS for PM-10 within a 24-hour period is 150 micrograms/cubic meter (ug/m^3). In July of 1997, the EPA added new NAAQS for particulate matter less than 2.5 micrometers in aerodynamic diameter. The 24-hour NAAQS for PM-2.5 is 35 ug/m^3. Although PM-2.5 causes more severe health effects and visibility impacts than PM-10, the PM-10 standards were retained because they also have the potential to cause significant health effects. The majority of particulate matter from smoke emissions is usually in the PM-2.5 size class.

An area that violates NAAQS is designated as "nonattainment". For the purposes of regulating ambient air quality, the Idaho Division of Environmental Quality (DEQ) does not have baseline data for the affected environment. However, air quality in the project area is generally excellent due to the lack of urban and industrial sources that are the primary sources of man made pollutants and a minimum of other activities (vehicle dust and emissions) in the area that would generate pollutants (P.R., Vol. 7, Air Quality).

The Montana/Idaho Airshed Group, of which the Boise National Forest is a volunteer member, was formed in 1998 and yearly releases its operating guidelines for public and private land managers within the state of Idaho. The objective of those guidelines is to coordinate prescribed burning among members to minimize smoke-related impacts to air quality. Idaho DEQ has certified to the EPA that the operations of the Montana/Idaho Airshed Group meet the Basic Smoke Management Program elements described in the interim air quality policy.

In addition, the Montana/Idaho Airshed Group monitors daily emissions, burning activities, and particulate matter levels with established monitoring units and certified meteorologists. The closest monitoring unit for this project is located roughly 25 miles to the northwest in McCall, Idaho (P.R., Vol. 7, Air Quality).

Class I Areas are subject to the most stringent restrictions relative to additional air pollution. The Federal Clean Air Act amendments of 1977 established the national visibility goals of preventing any future, and the remedying of any existing, impairment of visibility in mandatory Class I Areas where impairment results from manmade air pollutants. The EPA's regional haze regulations (July 1, 1999) require that all states develop visibility plans to address regional haze impairment of Class I Areas within their state as well as Class I Areas outside of their state that may be affected by emissions from within their state.

Table 3-12 lists the Class I Areas, non-attainment or maintenance areas, population centers, and other sensitive areas within a 100-kilometer radius of the project area, as well as the nearby population/recreational centers where smoke impacts may occur.

Table 3-12 Smoke Sensitive Areas

Class I Areas	Population Centers
Sawtooth Wilderness Area	City of Donnelly
Hells Canyon Wilderness Area	City of Cascade
Selway Bitterroot Wilderness Area	City of McCall
Eagle Cap Wilderness Area	Warm Lake Community
Craters of the Moon National Monument	Yellow Pine Community

3.7.1 Environmental Consequences Specific to Alternative A

This alternative does not propose any burning activities. Therefore no direct or indirect effects on air quality are expected. Impacts from dust and vehicle emissions in the area associated with recreational activities would not change from the existing condition (P.R., Vol. 7, Air Quality).

3.7.2 Environmental Consequences Common to Alternative B and C

Under Alternative B or C, burning of accumulated slash on a maximum of 56 acres of landings, along with dust and vehicle emissions would temporarily degrade air quality in the project area and surrounding airshed. However the proposed activities would not noticeably affect air quality in the vicinity of any of the sensitive areas, population centers, or in any Class I Areas (P.R., Vol. 7, Air Quality).

Prior to any burning, fuels specialists would prepare prescribed burn plans specifically addressing site, fuel, and weather conditions. Efforts would also be made to coordinate burning activities, to the extent practical, with other entities that may impact the same airshed. A general prescription dictating the number of piles burned in one 24-hour period was developed. Table 3-13 describes those burning activities and the amount of such activities that, based on the results of numerous Smoke Impact Spreadsheet (SIS) modeling efforts, could occur without violating guidelines set by Federal air quality regulations.

Table 3-13 Smoke Management Constraints

Season	Broadcast Burning (Activity Fuels)	Landing Pile Burning
Spring	Not Applicable	Not Applicable
Fall	Not Applicable	30 piles/day

Within the constraints identified in Table 3-13, modeling indicates that within one mile of the activity PM-2.5 generated by proposed burning activities would be below the standard established by the Clean Air Act's National Ambient Air Quality Standards (NAAQS), even when combined with average ambient pollutants (P.R., Vol. 7, Air Quality).

Completion of the burning activities under the constraints outlined above would be contingent upon uncontrollable weather conditions, as well as timing of harvest activities. It is anticipated that burning would begin in the fall of 2008 and be completed in the fall of 2009 or 2010.

3.7.3 Cumulative Effects

The area used to assess this project's cumulative effects on air quality consists of a 100-kilometer radius around the project area. There are no past or ongoing burning activities that, when combined with proposed activities, would result in a noticeable incremental effect on air quality. Foreseeable future actions considered in this cumulative effects analysis include burning activities associated with numerous timber harvests and fuels reduction projects on the Cascade Ranger District and similar projects on the Payette National Forest to the north.

Alternative A does not propose any burning activities and therefore would have no direct, indirect, or cumulative effects on air quality.

Smoke, dust, and vehicle emissions that result from Alternative B or C could combine with air pollutants from other projects, including other timber sale activities, prescribed fires and wildfires, mining activities and/or recreation uses on adjacent National Forest, State, and private lands. Each of these activities is largely driven by seasonal opportunities or requirements that present similar parameters on resource managers, landowners, and users to conduct their activities simultaneously. Even though the impacts of these activities are largely unforeseen, of short duration, and widely spaced over vast, complex terrain, degradation of air quality could occur at localized sites from cumulative effects (P.R., Vol. 7, Air Quality).

The Boise National Forest is a member of the Montana/Idaho Airshed Group and would use the services of the Montana/Idaho Airshed Group Meteorologist and the most appropriate smoke monitoring unit to determine the appropriate day burning could be implemented and not exceed NAAQS. Should a cumulative airshed problem be detected, immediate action would be taken to curtail this project’s contribution by delaying or coordinating timing of burning operations (P.R., Vol. 7, Air Quality).

3.8 Cultural Resources

This section of the document discusses the existing conditions of the cultural resources, as well as the effects of the various alternatives on those resources. The analysis area used in this assessment consists of the 103,804 acre project area (Figure 3-1).

Cultural resources are evidences of human activity, the clues that let us reconstruct past activities. These resources include stone tools and tin cans, log cabins and old roads, mine tailings, corrals, and even historic landscapes associated with mining and ranching. These resources document the patterns of human activity in the forest.

The National Historic Preservation Act is the principle guiding regulation for the management of cultural resources during any proposed activity that might affect the condition or context of cultural resources. As part of the review process, a determination of both significance and effect is prepared by the Forest Archeologist and submitted to the State Historic Preservation Officer and/or Advisory Council on Historic Preservation for comment. This determination states whether the proposed activities will affect significant cultural resources in the area, and if so, to what extent.

The assessment disclosed in this document was initiated following review of previous cultural resource surveys completed in the area, as well as surveys completed in the fall of 2007 in association with the Cascade Complex BAER Assessment. Due to the sensitivity of the resources, locations of historically significant sites are not disclosed in this document (P.R., Vol. 8, Cultural Resources).

3.8.1 Environmental Consequences Specific to Alternative A

This alternative does not propose any new ground-disturbing activities and would have no direct or indirect effects on historically significant sites (P.R., Vol. 8, Cultural Resources).

3.8.2 Environmental Consequences Common to Alternative B and C

These alternatives would not be expected to have any direct or indirect effects on historically significant sites. Previously identified sites would be protected under these alternatives (Section 2.4.2.8). The State Historic Preservation Officer has reviewed the resource report and concurred with the no adverse effects determination. Contract provisions that would halt all degrading activities would be included with these alternatives to prevent adverse impacts to any unknown sites discovered during implementation (P.R., Vol. 8, Cultural Resources).

3.8.3 Cumulative Effects

Since the effects of proposed alternatives would be limited to the project area only, the area used to assess the cumulative effects on cultural resources consists of the 103,804 acre analysis area (Figure 3-1).

With the exception of a five acre parcel in the vicinity of Knox Ranch, the entire cumulative effects area is administered by the U.S. Forest Service. Since 1950 an estimated 7,208 acres have been harvested within the cumulative effects area. Historic records indicate that since 1910 roughly 67,853 acres within the cumulative effects area have been affected by wildfire, some of which overlap with harvested acres. Although the specific effects cannot be quantified, the existing conditions disclosed above reflect the impacts of those past activities as well as any recovery that has occurred since those events. There are no ongoing or foreseeable future activities within this cumulative effects area that could add incrementally to impacts on this resource. Reference **Appendix B** for additional information and maps related to the cumulative effects analyses completed for this project.

None of the alternatives considered in detail are expected to have any direct or indirect effects on cultural resources therefore no cumulative effects are anticipated (P.R., Vol. 8, Cultural Resources).

3.9 Financial Assessment

Non-commodity values are difficult to assess, especially on projects of this scope. The full range of non-timber costs and priced benefits (as used to determine management area allocation) is appropriate at the Forest Plan level, but is extremely difficult to identify at a project scale. An analysis of this type at the project level would suffer from a lack of information and is not essential to the decision being made.

A number of environmental values and amenities occur within and adjacent to the project area, including recreational, visual, and wildlife resources. Although no attempt has been made to assign a monetary value to these amenities or to include them in this financial assessment, discussions relative to many of these

aspects of the social environment are addressed elsewhere in this document. In addition, the Final EIS completed for the Boise National Forest Land and Resource Management Plan includes a comprehensive socioeconomic analysis of the effects of timber harvest on the communities in southwestern Idaho, including effects on non-commodity resources. Reference the Southwest Idaho Ecogroup Land and Resource Management Plans Final EIS, Chapter 2, pages 123 through 131, and Chapter 3, pages 887 through 970 for detailed information.

The project area is located within Valley County. Small sawmills in Valley County and larger mills in adjacent counties process the majority of timber harvested from the Cascade District. Timber sales and their associated activities have an effect on local communities through their impact on employment. The Forest influences the wood products, government, construction, and recreation sectors. Indirect impacts occur as these sectors transact additional business with other sectors.

On October 30, 2000, President Clinton signed Public Law 106-393 (Secure Rural Schools and Community Self-Determination Act of 2000). Public Law 106-393 established a basis for calculating returns to the counties containing National Forest lands. Public Law 106-393 replaced the past practice of returning 25 percent of revenues from Forest timber sales. In addition, a separate fund established in recent years receives an amount equivalent to 10 percent of the 25 percent formerly received by the county. These receipts are designated for the maintenance of Forest Service roads and trails. Although the authorization provided by Public Law 106-393 ended in September of 2006, several efforts are currently underway to extend the authorization or to provide support to rural communities through other means. Therefore, for the purposes of this analysis, the assumption was that funds in an equivalent amount would continue to be distributed to the county.

The analysis for this project uses the TEA appraisal system and estimated net sale volumes, costs, and appraised values as indicators of the effects of the alternatives on local economies, funds available to be returned to the Federal Treasury, and the total cost to implement the alternative in comparison to the revenues generated. As mandated by a change in policy in the spring of 1999, the TEA appraisal now reflects required road-related activities (such as road construction, reconstruction, and maintenance) as a cost rather than a credit, thus lowering the lump sum value of the appraised volume.

There is no legal or policy mandate requiring that revenues generated by an individual National Forest timber sale exceed the cost to implement that project. Nevertheless, the issue of “below cost” sales is often raised as a concern for projects such as this. A timber sale is considered to be below cost when the Forest Service’s expense to prepare and administer the sale exceeds the revenue returned to the Federal Treasury.

Costs associated with the environmental analysis (NEPA) are a combination of costs already incurred, as well as projected expenditures. Sale preparation and harvest administration costs were estimated based on historic expenditures for similar activities.

This financial analysis is based on current information in a fluctuating market and is provided to show a relative difference between alternatives. A variety of influential factors could fluctuate unexpectedly and significantly increase or decrease the value of any alternative.

3.9.1 Environmental Consequences Specific to Alternative A

This alternative would not harvest any timber. By late summer of 2008, fire-killed and imminently dead trees will have lost much of their value as sawlogs. No expenses would be incurred for sale preparation or harvest administration. Costs associated with the NEPA analysis have already been incurred. Given the incurred costs of $48,000 and the lack of generated revenue (Table 3-14), this alternative would be considered “below cost” (P.R., Vol. 9, Financial Assessment).

3.9.2 Environmental Consequences Specific to Alternative B

This alternative would harvest an estimated 4.5 MMbf of timber and generate an estimated appraised value of $676,000 (Table 3-14). Sawlogs and other wood products, as well as employment opportunities associated with this alternative, would help sustain sawmills and economies in Valley County and adjacent counties. Jobs supported by this alternative would directly and indirectly benefit local economies and the economies of adjacent counties (P.R., Vol. 9, Financial Assessment).

Approximate costs of the NEPA analysis ($48,000), sale preparation and harvest administration ($137,000), estimated returns to the roads and trails fund ($17,000), and non-essential KV expenditures ($43,000) would total roughly $245,000. The total revenue generated by this alternative would exceed the cost to implement by roughly $431,000 (Table 3-14). While there is no legal or policy mandate requiring that revenues generated by an individual project exceed the cost of implementation, this alternative would be considered "above cost" (P.R., Vol. 9, Financial Assessment).

3.9.3 Environmental Consequences Specific to Alternative C

This alternative would harvest an estimated 3.3 MMbf of timber and generate an estimated appraised value of $488,000 (Table 3-14). Sawlogs and other wood products, as well as employment opportunities associated with this alternative, would help sustain sawmills and economies in Valley County and adjacent counties. Jobs supported by this alternative would directly and indirectly benefit local economies and the economies of adjacent counties (P.R., Vol. 9, Financial Assessment).

Approximate costs of the NEPA analysis ($48,000), sale preparation and harvest administration ($110,000), estimated returns to the roads and trails fund ($12,000), and service contract expenditures ($93,000) would total roughly $263,000. The total revenue generated by this alternative would exceed the cost to implement by roughly $225,000 (Table 3-14). While there is no legal or policy mandate requiring that revenues generated by an individual project exceed the cost of implementation, this alternative would be considered "above cost" (P.R., Vol. 9, Financial Assessment).

Table 3-14 Financial Comparison

	Alt. A	Alt. B	Alt. C
Net Volume (Mbf)	0	4,500	3,300
Gross Revenue (Appraised Value)	**$0**	**+$676,000**	**+$488,000**
Projected NEPA Costs	-$48,000	-$48,000	-48,000
Projected Sale Preparation & Harvest Administration Costs	$0	-$137,000	-110,000
Projected Returns to Roads and Trails Fund	$0	-$17,000	-$12,000
Projected Non-essential KV Expenditures	$0	-$43,000	$0
Projected Service Contract (Felling Trees in RCAs)	$0	$0	-$93,000
Net Revenue (Gross Revenue – Costs)	**-$48,000**	**+$431,000**	**+$225,000**

3.9.4 Cumulative Effects

There are no past, ongoing, or foreseeable future projects that would affect the financial assessment or revenue generated by any alternative. The potential influence of other projects currently being analyzed on adjacent districts or forests are unpredictable at this time. Therefore no cumulative effects are anticipated on the financial aspects or net revenue/expenditure ratios of this project (P.R., Vol. 9, Financial Assessment).

Numerous foreseeable future timber sales, all extremely tentative in nature, within and adjacent to Valley County will have an influence on the county's stability and employment opportunities, as will existing and/or future litigation of similar projects. While these factors will certainly affect employment opportunities, the magnitude and speculative nature of those effects are unpredictable at this time (P.R., Vol. 9, Financial Assessment).