

letter #	comment #	Commenter	Comment	Response
1	1	GCT/CBD	We understand that the Kaibab National Forest is moving into a public planning process to determine post-fire rehabilitation priorities for the area affected by the Warm Fire. While we look forward to participating fully in this process over the next several months, we would like to take this opportunity before the planning process starts to communicate some of our thoughts and concerns regarding post-fire activities.	Comment noted.
1	2	GCT/CBD	First, we fully appreciate your attempts to restore natural forest conditions across the Kaibab Plateau with Wildland Fire Use fire. Across the Southwest, and for many years to come, WFU will be a very important and efficient management tool for restoring natural forest conditions. We see a unique opportunity to learn from this fire – and use lessons learned to guide future Wildland Fire Use decision-making.	Comment noted.
1	3	GCT/CBD	Second, we appreciate initial communications from U.S. Forest Service staff indicating that the post-Warm Fire planning process will be an open and collaborative one, resulting in the development of an Environmental Impact Statement. We strongly encourage you to actively engage a diversity of stakeholders in the planning process, including scientists, Arizona Game and Fish Department staff, U.S. Fish and Wildlife staff, NGO representatives from across the state, members of the Coconino County Board of Supervisors, and interested community members from across the region.	Comment noted.
1	4	GCT/CBD	Within the upcoming planning process, we believe it is necessary to prioritize rehabilitation activities that support the long-term restoration of the pinyon-juniper, ponderosa pine, and mixed conifer forest ecosystems affected by the fire. Planners and planning participants should use the best available science to identify priority rehabilitation strategies and activities. The process should be open to the integration of non-U.S. Forest Service datasets (such as those collected by the Grand Canyon Trust in 2005 and 2006) that describe pre-burn, current, and predicted post-burn characteristics in and around the burn area.	We'll use the available information and consider the information submitted.
1	5	GCT/CBD	We look forward to participating in a planning and decision-making process that is constructive and collaborative and generates rehabilitation and restoration guidance and capacity in a timely fashion. In this vein, we hope that the following issues are addressed with the utmost care:	Comment noted.

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		GCT/CBD	1) Large-scale salvage logging ~ We have assessed (and continue to assess) the area's physical and biological characteristics, reviewed literature pertaining to the ecological costs and benefits of salvage logging in the Southwest, and will continue to survey experts across the region. Through this process, it has become increasingly clear to us that large-scale salvage logging would unacceptably diminish the area's ecological integrity and resiliency, and provide relatively minimal future fire hazard reduction.	The purpose and need was identified by the Decision maker.
1	6	GCT/CBD	Alternatively, we encourage you to consider hazard tree removal along roads anticipated to be open following travel management planning in such a manner that reduces short-term risk and long term maintenance needs, small tree removal in encroached meadows, and small diameter tree removal in unburned pockets and lightly burned areas within the burn perimeter where restoration needs dictate. Tree removal in these situations would effectively enhance public safety, restore ecological integrity, and likely generate significant commercial timber volume.	The RAP process is not completed. However, initial thoughts are all system roads would likely remain open. The district is addressing primary travel corridors with a hazard tree removal effort. Additional hazard tree removals along existing roads will be considered with this project. If there are specific roads of interest let us know.
		GCT/CBD	2) Post-fire re-seeding ~ A growing body of literature and professional experience suggests that unintended negative consequences (i.e. introduction of invasive non-native species and non-local genotypes) of post-fire re-seeding activities frequently outweigh benefits of such seeding. We strongly suggest that reseeded occur on a limited basis and only where absolutely necessary for watershed protection purposes. We recognize the dire need to prevent cheat grass establishment in the lower elevations of the burn area, and look forward to an open, scientifically rigorous process for determining re-seeding costs and benefits in preventing such establishment.	We will follow BMP'S regarding noxious weed management including not traveling through infested areas before traveling into burned areas, washing rigs, a weed risk assessment will be completed as required. Native seed and/or sterile non-native annual species will be incorporated for BMP's. The forest completed planting of sterile annuals in response to the BAER needs. Any follow up seeding would use native seed and/or sterile non-native annual species.
1	7	GCT/CBD	Additionally, we suggest exploring on-site "mastication" of burned trees across portions of the burn area as a means of redistributing nutrients to the forest floor and creating microsites for native species re-establishment.	Mastication is being considering along with a variety of fuels treatments including chipping and pile burning.

contact to define "large scale"; define "ecological integrity and resiliency" request GCT to send literature they want to be considered specifically.

Blaze to develop weed risk assessment. District example.

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1	8	GCT/CBD	3) Post-fire livestock-grazing ~ It is commonly understood across the Southwest that burned forested ecosystems should be withheld from livestock grazing for a significant period of time. The Grand Canyon Trust and North Rim Ranch stand ready to withhold livestock from and manage livestock within the area in a manner that allows for meaningful and sufficient rehabilitation of edaphic and vegetation resiliency. We encourage you to examine this issue closely and with the best available scientific guidance.	Grazing will follow permit instructions and Forest Plan direction of not grazing burned areas for a minimum of two years following fires. For the 2007 grazing season no grazing of the burned pasture. For the 2008 season the planned course of action is to allow the unburned portions of the pasture to be grazed.
1	9	GCT/CBD	Again, we appreciate your continued attempts to responsibly re-introduce fire into Southwest forests with Wildland Fire Use. We look forward to working with you and many other stakeholders in defining ecologically appropriate post-fire rehabilitation and restoration strategies for the extensive area affected by the Warm Fire. Please do not hesitate to call us if you have any questions or would like to further discuss the issues mentioned in this letter.	Comment noted.
2	1	Laura Fertig	Post-fire vegetation treatment should focus on restoring, as much as possible, the components and proportions of native vegetation types that are suggested as suitable by Range Site Descriptions, Site Write-ups, or other vegetation information. In other words, while non-native species may be appropriate as an intermediate, temporary stage in site rehabilitation, the ultimate goal should be restoration of native vegetation.	The available vegetation information including stand data, ecological succession information and the Terrestrial Ecosystem Survey data will be considered as we propose actions to move toward the desired future conditions identified in the Forest Plan.
2	2	Laura Fertig	The Kaibab N.F. should be managed primarily to restore ecosystem processes and wildlife and plant habitat. Fire and other anthropogenic disturbances (grazing, timber harvesting, recreation) should be used to achieve this primary goal.	The project will be designed to comply with the Forest Plan.
2	3	Laura Fertig	Please try and use the best scientific information available in fire management and post-fire restoration. Resist the temptation to manage via politics and uninformed public opinion.	Comment noted.
3	1	Jeff Ingram	Again, I'm sorry that I was not able to join the field trip. From the notes, I can tell that, as a layman, it would have been an educational excursion for me. I want to make two points, one very general, the other concerning an area apparently not discussed but which I have been suggesting to the North Kaibab RD since the Hidden fire of a few years ago.	Comment noted.

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3	2	Jeff Ingram	In general, though specifically for the Kaibab Plateau as a quasi-isolated forest, I believe that the criterion for USFS activities should be to move toward a long-term healthy forest, by which I mean a forest in which fires can start, burn, and fade out as part of a natural forest process. As was evident in the publicity surrounding the Warm fire, the concern seemed to be overmuch to do with the minimal risk to health & property, and less to do with how the forest handled the fire, i.e., how the state of the forest did or did not permit a wildfire to burn in a natural way. This is, of course, a huge subject, and I do hope to be able to participate in discussions about it in the future.	The project will be designed to comply with the Forest Plan.
3	3	Jeff Ingram	My more specific concern has to do with presentation to and education of the public on the subject of fire in forests, healthy and otherwise. Like the Hidden fire, the Warm burn is excellently located to provide an intensive & extensive, long-term opportunity to involve the traveling public in obtaining a broader understanding of forest fire. Questions about the fire are inevitable in the minds of those who drive the Kaibab roads. NKR D should have as one of its priorities a program to provide turnoffs, trails, information sites, etc., so that as the years pass, decisions are made, and the forest is treated & develops, the public can understand what has happened, is happening, and what the goals/hopes are.	The district is designing interpretive information for the Warm Fire for potential installation in 2007.
3	4	Jeff Ingram	Fire, I believe, is an opportunity to move toward a healthy forest and toward larger support from an informed public.	Comment noted.
4	1	FWS	We consider the areas originally identified and mapped as MSO habitat that were affected by the Warm Fire to be MSO habitat. The habitat should continue to be managed as MSO habitat. Long-term recovery of the areas as MSO habitat should be the goal and objective of any treatments that occur in those areas.	Areas originally mapped were selected using a model that has known limitations. The District Biologist reviewed stands identified by this model as potentially meeting Recovery Plan definitions for MSO habitat. Using pre-fire data, the biologist determined which stands actually met the Recovery Plan definitions before the Warm Fire burned them. The reviewed stands with conditions that met the
4	2	FWS	All firelines and temporary roads used to fight the fire should be rehabilitated	Comment noted.
4	3	FWS	The area of the fire should be closely monitored for the occurrence of invasive plant species. Such occurrences should be appropriately treated on a timely basis to prevent the establishment of the invasive species.	Noxious weeds will be monitored

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4	4	FWS	Depending on methods, planting trees, particularly in areas of high severity fire, may be an appropriate action. We recommend coordination of tree planting with the Fish and Wildlife Service.	Comment noted.
4	5	FWS	Some research indicates that reseeding and replanting should be limited (Beschta et al. 2004, Karr et al. 2004) and that "native seed sources or colonists are almost always sufficient for early natural reestablishment of native species, so planting should be considered only when natural regeneration is unlikely." We recommend that the Forest read the discussion regarding seeding in Beschta et al. (2004).	Comment noted. The referenced paper was provided to the team.
4	6	FWS	There is a growing body of literature that indicates that there is very little ecological benefit, if any, to be gained from salvage logging. We recognize that the decision to salvage log typically has more to do with economic and social reasons rather than ecological reasons. However, it is critical that analyses be conducted to determine if salvage logging should occur after all information is considered prior to making a decision.	Comment noted.
4	7	FWS	Per Beschta et al. (2004) and Karr et al. (2004) the following "rules" should be followed when planning salvage logging activities so that ecological recovery is not impeded: (1) No management activity should be undertaken that does not protect soil integrity. (2) Actions that impede natural recovery of disturbed systems should not be undertaken. (3) Salvage activities should maintain and enhance native species and natural recovery processes.	Comment noted.
4	8	FWS	New road construction should be avoided	Comment noted.
4	9	FWS	Avoid ground-based logging systems that will result in dragging trees across burned soils.	Comment noted.
4	10	FWS	Beschta et al. (1995) recommended that salvage logging should leave at least 50% of standing dead trees in each diameter class. The 1995 report and Henjum et al. (1994) and Hutto (2006) also recommend no harvest of live trees within burn perimeters or of dead trees > 20 inches dbh or older than 150 years.	Comment noted. Project design will retain significant standing dead trees of all sizes in snag corridors, and in clusters within large, open salvage units. Live trees were not considered for removal during project design.

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4	11	FWS	Stephens and Finney (2000) found that the probability of conifer mortality is low when the percentage of crown scorch is less than 60%. For trees $\geq 19$ inches dbh, they determined the probability of mortality of ponderosa pine and white fir was $< 40\%$ when crown scorch was as high as 80%.	Comment noted.
4	12	FWS	Work with the FWS, AGFD, RMRS, and others to develop appropriate snag-retention guidelines for the burned forest. Most snag-retention guidelines for live forests are not appropriate for burned forests and we should develop guidelines that will better provide for ecological restoration and fire-dependent bird species (Hutto 2006). In addition, to leaving more trees post fire, the layout of these remaining trees should focus on leaving large groups versus individual trees.	Comment noted. Project design will retain significant standing dead trees of all sizes in snag corridors, and in clusters within large, open salvage units.
4	13	FWS	We recommend that salvage logging (salvage) not occur in areas originally identified and mapped as Mexican spotted owl (MSO) habitat. We understand that the Warm Fire was over 50,000 acres in size, including 10,500 acres of MSO habitat. In order to reduce further possible environmental consequences to MSO habitat, any salvage should occur elsewhere.	Comment noted. The acreage and dispersed occurrence of owl stands will be reported in the analysis, and effects to those stands will be disclosed.
4	14	FWS	If salvage must occur in MSO habitat, we recommend that it not occur in stands originally identified as target/threshold MSO habitat.	Comment noted. Stands that once met conditions desired as target/threshold habitat may be proposed for salvage depending on location and access. However, only those stands that have sustained total canopy loss will be selected for potential salvage operations. The fire destroyed most of the components that qualified the stand for target/threshold designation. Retaining snag corridors and pockets of large trees in the interior portion of salvaged stands provides snags and down wood into the future, but overstory conditions desired by the Mexican spotted owls will not emerge for many years.
4	15	FWS	If salvage must occur in MSO habitat, we recommend that it occur in some limited proportion (e.g., no more than 25 percent).	Comment noted. The percentage of MSO habitat salvaged compared to the habitat burned by the fire will be disclosed in the analysis.

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4	16	FWS	If salvage must occur in MSO habitat and critical habitat, we recommend that the key habitat components and primary constituent elements be retained to the greatest extent. Those components and elements include trees greater than 24 inches in diameter at breast height (dbh), other large trees, large snags, large dead and down material, hardwoods, and canopy cover of 40% or more (see information above on maintaining large trees following salvage – research indicates trees ≥19 inches should be maintained).	Comment noted. Stands that once met conditions desired as target/threshold habitat may be proposed for salvage depending on location and access. However, only those stands that have sustained total canopy loss will be selected for potential salvage operations. The fire destroyed most of the components that qualified the stand for target/threshold designation. Retaining snag corridors and pockets of large trees in the interior portion of salvaged stands provides snags and down wood into the future, but overstory conditions desired by the Mexican spotted owls will not emerge for many years.
4	17	FWS	If salvage must occur in MSO habitat, we recommend that such harvest not occur in protected (in this case, slopes greater than 40 percent that have not been previously treated) MSO habitat. Salvage should also not occur where MSO habitat occurs in forested canyon situations.	Comment noted. No canyons or sustained slopes over 30% will be available for salvage.
4	18	FWS	If salvage must occur in MSO habitat, we recommend it not occur in areas that are of mixed fire severity. In other words, salvage should not occur where fire severity is less than high severity.	Comment noted. Stands available for salvage must meet several criteria including road access, slope less than 30%, high or high-moderate tree mortality, suitable volume and other considerations.
4	19	FWS	We recommend that any MSO habitat that receives salvage treatments be included in a comprehensive research and monitoring plan designed to determine effects to, and long-term recovery of, the areas.	Outside the scope of this project. The Forest is putting together a Warm Fire Recovery Plan. This comment will be captured in that plan.
4	20	FWS	We recommend that hazard tree removal in listed species habitat be coordinated with the Fish and Wildlife Service.	Comment noted. Hazard tree removal projects that have been identified have been discussed with the Fish and Wildlife Service. Appropriate consultations will occur.
4	21	FWS	We recommend implementation of any measures in the Kaibab plains cactus (KPC) conservation strategy and agreement that address rehabilitation and restoration for the species.	Outside the scope of this project. The Forest is putting together a Warm Fire Recovery Plan. This comment will be captured in that plan.
4	22	FWS	We understand that there might be an area of occupied KPC habitat that was previously inventoried that was affected by the fire. If that is the case, we recommend that population of KPC be examined to determine the effects of the fire.	Outside the scope of this project. The Forest is putting together a Warm Fire Recovery Plan. This comment will be captured in that plan.
4	23	FWS	We recommend that a comprehensive assessment of the effects of the fire on KPC habitat (occupied or not) be conducted.	Outside the scope of this project. The Forest is putting together a Warm Fire Recovery Plan. This comment will be captured in that plan.

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4	24	FWS	The CSA is due for review. We recommend that review include consideration of development of measures to better address fire management in the habitat and locations of occurrence of KPC.	Outside the scope of this project. The Forest is putting together a Warm Fire Recovery Plan. This comment will be captured in that plan.
5	1	Wildlife meeting	Proposed Actions, Design Features or Concerns. On all substantive steep slopes (30% grade or more over a long distance), elect to take no action with ground-based activities.	Slopes were considered. Most of the areas would likely be treated through ground based equipment and likely to occur on slopes of 0-20 percent. Ground based equipment limitations are up to 30 percent. The project will be designed to comply with the Forest Plan. ( 0-20 - 80% 22-30- 17% 30-40 3% )
5	2	Wildlife meeting	Monitor unsalvaged, untreated areas for natural recovery of native and invasive vegetation. Immediately take aggressive action to suppress or eliminated invasive species.	Monitoring will occur during the first year under the BAER authority and following years under the Three Forest Weed EIS.
5	3	Wildlife meeting	In areas of high and mixed high mortality (October version of BARC map), consider planting a mix of Douglas-fir and ponderosa pine seedlings. Plantings should only occur in areas where seed sources have been eliminated, or distance to a seed source is farther than average seed dispersal.	Based on preliminary field review natural seed sources are lacking in the high and mixed high mortality areas. Reforestation will be part of the proposal with appropriate species compositions.
5	4	Wildlife meeting	Avoid salvage logging except for human safety (hazards). If salvage logging is necessary, clearly define the reasons for choosing to salvage including the ecological benefit or detriment on a stand by stand basis if possible.	The decision maker has identified the purpose and need for the project which includes salvage opportunities for economic benefit. Forest Plan direction will be followed.
5	5	Wildlife meeting	Consider in detail the growing body of literature recognizing little ecological benefit from salvage (see USFWS Initial Comments on Post-Warm Fire Activities for citations).	Available literature will be considered.

CD of literature on ftp site. Identify salvage criteria - access, volume, slopes, high severity and lack of seed source. Forest MOU with State of Utah. Remove some of the future fuels. Move the area towards the DFC.

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5	6	Wildlife meeting	If salvage logging is identified, leave large groups of snags for wildlife rather than small groups or the recommended 2-3 snags per acre in the Forest Plan. The FP identifies retention amounts for forested areas that are still living. Wildlife in high mortality areas, such as this fire, have completely different needs than in green forests. Few opportunities exist to provide wildlife with habitat components in severely burned areas, and large areas of snags afford wildlife the comfort of at least minimal hiding cover and resting areas as they travel to unburned areas. Consider the connectivity of unsalvaged areas and residual blocks of retained snags in terms of providing travelways through the extensive burned areas.	This has been incorporated into project design through identification of snag retention corridors and stream management zones.
5	7	Wildlife meeting	When considering snags to retain, attempt to leave large groups (noted above) and especially focus on leaving the largest snags available. Size is important to cavity nesting birds, but larger snags remain standing longer than smaller diameter snags. When they do fall, larger down woody material is very important for wildlife.	This will be incorporate into project design if the snag corridors are insufficient.
5	8	Wildlife meeting	Recognize the potential re-burn fuel loading where significant numbers of snags and down wood are retained. There is some question regarding whether reburning is a valid concept, and we would like to explore the literature regarding the true potential for areas to reburn.	We will design the project to manage fuel conditions to mimic historic conditions and comply with the Forest Plan down woody requirements.
5	9	Wildlife meeting	Aggressively monitor and immediately treat invasive, noxious vegetation throughout the burn area. Cheat grass is particularly of concern, and exists in large areas on the east and west sides of the Kaibab Plateau. Wildlife managers are highly concerned that this wildfire may provide the foothold for establishment of cheat on the upper elevations of the Plateau.	Monitoring will occur during the first year under the BAER authority and following years under the Three Forest Weed EIS.

Review the literature reference. Short term deficient nutrients, important to retain as much organic matter as we can. Masticating if compaction or accellerated soil erosion.... Remove larger material, smaller material

need a specific direction for the 3 Forest weed EIS. Limitation on acres of monitoring and treatment. Catastrophic events?

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5	10	Wildlife meeting	The Forest Plan provides for domestic grazing exclusion for two growing seasons following a fire. Reintroduction of cattle to these areas should be based on the level of recovery rather than just time since burning. Although the FP notes areas should be evaluated for suitability before turning cattle onto an area, we would like to see some specific guidance for the Warm Fire suppression area. This group would volunteer to develop criteria to guide the re-entry of cattle, based on vegetative production, soil stability and other factors that indicate the area is healthy enough to sustain grazing.	Adjustments to the grazing permit is outside the scope. The Forest Service encourages the group to work with the range staff pertaining to the allotment permit. Grazing will follow permit instructions and Forest Plan direction of not grazing burned areas for a minimum of two years following fires. For the 2007 grazing season no grazing of the burned pasture. For the 2008 season the planned course of action is to allow the unburned portions of the pasture to be grazed.
5	11	Wildlife meeting	Ensure all rehabilitation of firelines and temporary roads from fire suppression has been completed. Include rehabilitation and closure for any roads or firelines used during recovery as well.	Any temporary roads would include rehabilitation through project design.
5	12	Wildlife meeting	Pre-fire Ponderosa Pine-Dominated Areas The desired future condition for the ponderosa pine dominated areas is to eventually regain the mixed structural stages appropriate for northern goshawks and their prey. In the interim, promoting aspen in those areas where it is aggressively sprouting is desirable due to the widespread decline of aspen West-wide. This group is open to discussing how much aspen is appropriate, and when or where conifer interplanting should occur. Most of the items listed under mixed conifer actions above are relevant and desirable for ponderosa pine areas.	This comment will be considered in project development.
5	13	Wildlife meeting	Limit salvage and define its necessity/justification where proposed.	The decision maker has identified the purpose and need for the project which includes salvage opportunities for economic benefit. Forest Plan direction will be followed.
5	14	Wildlife meeting	Limit planting to areas with no seed source and a high likelihood of planting success.	Based on preliminary field review natural seed sources are lacking in the high and mixed high mortality areas. Reforestation will be part of the proposal with appropriate species compositions.
5	15	Wildlife meeting	Target planting in some areas to put pine regeneration on the 'fast track' to satisfy the needs of Kaibab squirrel and other species that utilize old growth pine stands.	Pine reforestation is part of the proposal where appropriate. This comment will be considered in project development.

how much aspen. The State leave as much aspen in pure stands. If aspen sprouting, leave those to restore. Fully stocked aspen stands will be left.

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5	16	Wildlife meeting	Limit planting in areas of aspen regeneration to areas without adjacent conifer seed sources. In some areas, it may be appropriate to plant conifers in stages to provide different successional stages of conifer establishment over time to simulate natural diversity across the burn area.	Areas are being review where aspen regeneration is occurring and where conifer planting would be appropriate. This comment is being considered in project development.
5	17	Wildlife meeting	If salvage is proposed, follow salvage with planting only in areas identified as high mortality by the October version of the BARC map.	Salvage opportunities are considered for high and moderately high mortality areas. Reforestation planting will be identified where appropriate.
5	18	Wildlife meeting	Monitor areas where no active management is taken for noxious/invasive weed establishment and treat aggressively.	Monitoring will occur during the first year under the BAER authority and following years under the Three Forest Weed EIS.
5	19	Wildlife meeting	Pre-fire Pinyon Pine and Juniper-Dominated Areas The desired future condition for the pinyon pine and juniper dominated areas is to eventually regain the mixed structural stages appropriate for wintering northern goshawks and their prey, and birds identified as species of concern by Partners In Flight (Latta 1999). In the interim, promoting woody browse revegetation (cliffrose, winterfat, four-wing saltbush, etc.) in burned areas is desirable to re-establish hiding cover and food for a variety of species. A similar project to consider actions options is the West Side Wildlife Habitat Improvement Project due to have a decision signed by the end of November, 2006. This group is open to discussing appropriate treatments, and providing lessons learned from that project.	Pinyon-Juniper restoration is outside the scope of this project. This comment will be passed along to the Forest for consideration in the overall Warm Fire restoration plan.
5	20	Wildlife meeting	Salvage logging should not be identified in these areas. However, contour felling may provide soil stability in carefully identified areas.	Pinyon-Juniper restoration is outside the scope of this project. This comment will be passed along to the Forest for consideration in the overall Warm Fire restoration plan.
5	21	Wildlife meeting	PJ areas have the highest likelihood of invasive, noxious weed establishment, and should be intensively surveyed and aggressively treated over a long time-period. Area closures should be considered to reduce traffic that may carry additional invasive, noxious weed seed into uninfested areas.	Pinyon-Juniper restoration is outside the scope of this project. This comment will be passed along to the Forest for consideration in the overall Warm Fire restoration plan.
5	22	Wildlife meeting	Planting pinyon and juniper should not be considered. A large body of literature indicates PJ encroachment into important grassland and sagebrush areas has occurred through time, and should not be exacerbated by planting trees.	Pinyon-Juniper restoration is outside the scope of this project. This comment will be passed along to the Forest for consideration in the overall Warm Fire restoration plan.

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5	23	Wildlife meeting	Follow the direction of the Paradine Plains Cactus Conservation Assessment and Strategy. Identify areas to test and monitor management and natural recovery to provide adaptive management information for revising the cactus management strategy.	The areas with Paradine plains cactus are not identified for treatment with this project. This is outside the scope of this project. This comment will be passed along to the Forest for consideration in the overall Warm Fire restoration plan.
5	24	Wildlife meeting	General Considerations, Fire-wide Rebuild water sources for wildlife and correct pH imbalances – rebuild those sources that have a history of good holding capacity, or identify replacement locations nearby. Use the most recent technology to provide access to as many species as possible including escape features in tanks.	Although these actions are outside the scope of the Warm Fire EIS. Range stock tanks are planned to be cleaned out in the spring of 2007 under the permit. Water quality sampling will occur in the lakes and stock tanks in spring 2007 and depending upon the results mitigative activities will be applied.
5	25	Wildlife meeting	Identify areas fire-wide that need closure orders for vehicular traffic (e.g. four-wheelers, snowmobiles, etc.) to allow uninterrupted breeding, resting, fawning and nesting areas. This is compatible with the Grand Canyon Game Preserve Act.	No area closures are proposed at this time in the Warm fire area at this time. The Forest Supervisor has the authority to identify road closures as needed.
5	26	Wildlife meeting - AZ Deer Association	We request the change in a large portion of the habitat not be used as an excuse to increase mule deer harvest tags. If there is a valid concern or identified need to increase the tags, this group would like the opportunity to review the information.	The AZ SGF manages the deer harvest tags. This is outside the scope of this project.
6	1	Wally Covington ERI	1. for preliminary info about making decisions regarding aspen management in the larger landscape context, you might want to first take a look at <a href="http://www.fs.fed.us/rm/pubs/rmrs_p018.html">http://www.fs.fed.us/rm/pubs/rmrs_p018.html</a> Shepperd et al. RMRS-P-18: Sustaining aspen in western landscapes: symposium proceedings; 13-15 June 2000; Grand Junction, CO. Then you may want to contact Wayne Shepperd (RMRS), Dan Binkley (CSU, dan@cnr.colostate.edu ), and MaryLou Fairweather (R-3 Plant Pathologist, AZ Zone) for further info.	This information is being reviewed.

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6	2	Wally Covington ERI	2. regarding planting and other treatments, we talked about reading the landscape (e.g., looking for evidence of pre-grazing- and fire exclusion-era trees, or the absence thereof) as a general starting point for managing toward conditions more consistence with the long-term evolutionary environments of the plants, animals and other organisms, including humans, of the Kaibab Plateau. We further discussed examples including not planting in areas devoid of evidence that trees were present before the 1880's, and where "evidences" (e.g., stumps, stump holes, standing dead or dying trees of pre-disruption age) do exist planting only a handful or so of the same species in proximity to the "evidences" to seek to emulate the natural patch and landscape variability that would be more consistent with the evolutionary environment than were the conditions that existed just prior to the Warm Fire.	This information is being reviewed in the development of the reforestation design.
6	3	Wally Covington ERI	3. Finally, we spoke of the importance of getting natural fire regimes back into the Warm Fire area as soon as that can be done safely. Otherwise, the abundance of tree seedling establishment that is likely to occur will likely set the ecosystem on a trajectory for a self-repeating sequence an unnaturally destructive fire on a, say, 5-10 decade interval into the future.	This project is looking at the near future (up to 5 years). The Forest Plan revision is the appropriate place where this will be considered.
7	1	Jim Koons	I want to thank you for the opportunity to participate in the Warm Fire tour. The orientation discussions held at Jacob Lake and the four Warm Wildfire (39,000+ acres) field trip stops provided the opportunity for all in attendance to provide you with a lot of stakeholder input. I have given a lot of thought to what I heard and saw. As a result I have decided to share with you a few of my observations, most of which apply to the Warm Wildfire area only.	Comment noted.
7	2	Jim Koons	DESIRED FUTURE CONDITION: 1. Due to the size of the burned area (no mosaic) and intensity of the fire, there appears to be a lack of conifer seed source to re-establish previously existing mixed conifer Mexican Spotted Owl habitat.	Comment noted.
7	3	Jim Koons	2. Planting DF, WF, ES and/or PP may be an option if you have the nursery stock and funding.	Comment noted.
7	4	Jim Koons	3. Aspen regeneration will take over some sites. The result will be a change in vegetative type on more acres than expected. Mexican locust will also invade PP sites.	Comment noted.

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7	5	Jim Koons	DEFORESTATION: 1. Due to the severity of the fire in the PJ and PP vegetative type TRANSITION ZONE (East side of Hwy 67), it is likely that significant acres of PP will not be reforested for several centuries, unless replanted now.	Comment noted.
7	6	Jim Koons	2. USFS literature indicates that STAND REPLACING FIRES are required to burn the PJ vegetative type. If true, the existing adjacent PP stands are at significant risk of degradation. Fuel breaks and/or fuel reduction corridors should be considered prior to FIRE USE OR PRESCRIBED FIRE application on any and all vegetative transition zones on the North Kaibab R. D.	Comment noted.
7	7	Jim Koons	TIMBER HARVEST: 1. Millions of board feet of sawtimber have been killed by the Warm Fire. If the sawlogs are to be harvested for sawmilling, the timber needs to be harvested as soon as possible. Insect activity (bores) and weathering (checking/spiral cracks/etc) will degrade the sawlogs to the point where they are not merchantable, especially the small logs. Realistically, depending on log size and market conditions, you only have a three to five year window of opportunity.	Comment noted.
7	8	Jim Koons	2. Some of the older dead timber could be removed as firewood, posts, poles, house logs, etc.	Comment noted.
7	9	Jim Koons	3. I would suggest you schedule a tour for potential purchasers as soon as possible. It would be great if you could find purchasers interested in helping you remove some of the potential dead and down biomass – before the next fire.	Comment noted.
7	10	Jim Koons	WATERSHED: 1. Significant contiguous acres were moderately or severally burned. Tree canopies and ground cover have been completely burned. High intensity thunderstorms have resulted in unacceptable overland flows. Roads have been gullied and stock ponds filled with ash and soil deposits. Dealing with these problems as soon as possible will likely minimize the adverse environmental and economic impacts. If asked, stakeholders will probably be willing to help deal with these problems.	Comment noted.

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7	11	Jim Koons	2. Overland flow from high intensity thunderstorms is likely to continue for several years, especially on the steep slopes on the East side of Highway 67. This may be an opportunity to create new sediment basins that, short-term, could minimize downstream erosion problems and, long-term, serve as a source of water for wildlife and livestock.	Comment noted.
7	12	Jim Koons	GRAZING: I would suggest you schedule a meeting with permittees (customers) as soon as possible. I am sure there will be some short-term adverse impacts and some long-term benefits from the fire. Getting input from your permittees may help you better manage the probable impacts and potential opportunities. Grazing deferrals should be minimal, especially in view of the significant increase in VSS-1 acres. Short-term the increase in VSS-1 acres should, subject to other limiting factors (water, etc), result in increased forage for livestock and wildlife.	Grazing will follow permit instructions and Forest Plan direction of not grazing burned areas for a minimum of two years following fires. For the 2007 grazing season no grazing of the burned pasture. For the 2008 season the planned course of action is to allow the unburned portions of the pasture to be grazed.
7	13	Jim Koons	WILDLIFE: I would suggest you schedule a meeting with interested parties as soon as possible. Their input may help you better manage the potential impacts and opportunities	Meetings with wildlife stakeholders have and will occur obtain input.
7	14	Jim Koons	2. To my knowledge, water has always been critical for most types of wildlife. Constructing new sediment basins in the appropriate locations may help meet this need.	This is outside the scope. Sediment basins do not provide a long term solution to provide water for wildlife.
7	15	Jim Koons	VISUALS: 1. I would suggest that the Warm Fire burned area in the TRAVEL INFLUENCE ZONE adjacent to AZ Highway 67 be rehabilitated as soon as possible. Rehabilitating this ZONE will help reassure the American public that you are taking good care of their public lands.	Visual resources will be considered and analyzed with this project.
7	16	Jim Koons	VEGETATIVE STRUCTURAL STAGE (VSS): 1. The Warm Fire created significant acres of potential VSS-1. Previous burns, blowdowns (VT & Nine Mile), and timber harvesting have created significant acres of VSS-1 or VSS-2. I would suggest you re-inventory your desired VSS acreages, especially in the mixed conifer vegetative type. My guess is that you have more VSS-1 mixed conifer than you want	Comment noted.

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7	17	Jim Koons	WILDLAND FIRE "USE" FIRES: 1. The Warm Wildfire (39,000 acres) was an unintended consequence of the lightning caused Warm Fire "USE" fire (19,000 acres). The concept of letting Mother Nature determine WHEN the USFS will consider using fire in the forest appears illogical to me. The risks will, all to often, out way the benefits, especially early in the fire season and during periods of prolong drought (see line 5, first paragraph, page 21, KNF FMP –2005).	Comment noted.
7	18	Jim Koons	2. A DECISION TO IMPLEMENT THE "LET IT BURN" POLICY DURING THE NORMAL FIRE SEASON implies that some level of environmental degradation (sterilized soils, erosion, etc.) is acceptable.	Comment noted.
7	19	Jim Koons	3. Please refer to the KNF 2005 Fire Management Plan, page 14, FMU 1, Fire Use Permitted, line 3, which states in part that tree ring analysis learned that areas of PP stands AVERAGING 3000 ACRES in size re-burned every two to ten years. I have no idea what data was used to conclude that the average burn in the PP/PJ type was 3000 acres, but LIMITING A FIRE "USE" FIRE TO 3000 ACRES APPEARS TO BE PRUDENT and it may replicate Mother Nature's way of laying a mosaic on the landscape.	This is outside the scope. The Forest Plan Revision is the appropriate location to address.
7	20	Jim Koons	4. In view of current fuel buildups, prescribed fire appears to be a far better alternative to fire "use" fires.	Comment noted.
7	21	Jim Koons	FIRE "USE" COST/BENEFIT: 1. Prolonged drought and fire weakened over-mature PP is a prescription for a bark beetle infestation. If an infestation gets started there is no way you will be able to stop it. Be careful what you wish for!	Comment noted.
7	22	Jim Koons	2. Prudent application of Fire "Use" will require pre-suppression expenditures to protect resources. Mechanical treatment and/or prescribed fire needs to be used along the KNF boundary, around public and private facilities located inside the NF, along major highways/ access roads, vegetation type transition zones and fuel breaks adjacent to Mexican Spotted Owl habitat.	This is outside the scope. The Forest Plan Revision is the appropriate location to address.
7	23	Jim Koons	3. In view of the risks and costs, it sure appears that mechanical treatment through timber harvesting would result in the greatest benefits – if you could get the job done on the ground.	Comment noted.

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7	24	Jim Koons	PUBLIC RELATIONS: 1. Smokey the Bear's message to the public to "Please Help Prevent Forest Fires" has been effective. Today the public, including your stakeholders, believes that fire in the forest is bad. Getting "FIRE USE" support from your stakeholders, especially the local rural residents, should be your first priority. If you can convince your stakeholders that fire is good, you may have a chance with the general public	Comment noted.
7	25	Jim Koons	2. When the USFS went out of the commodities business, they lost the support of rural communities that depended upon the public lands for jobs. An unintended consequence (not timber sales) was that the USFS also lost the best firefighting heavy equipment and equipment operators that money could buy.	Comment noted.
7	26	Jim Koons	3. The Warm Wildland Fire "Use" Fire turned Wildfire generated a lot of local public concerns. When a Fire "Use" Fire is declared a Wildfire, the USFS needs to be candid about the adverse impacts. Stating that in a century or two everything will be okay is the wrong message. Identifying the good, the bad and the ugly will improve your credibility with the public.	Comment noted.
7	27	Jim Koons	FUNDING: 1. During the Warm Wildfire orientation meeting funding for rehabilitation and restoration was identified as a potential issue. According to the 2005 KNF Fire Management Plan, page 4, Policy Statements, item 5 – Rehabilitation and Restoration, which read in part "efforts will be undertaken to protect and sustain ecosystems". Policy has been defined as a PREDETERMINED COURSE OF ACTION. Historically, as an example, salvage timber harvesting helped provide funding for planting burned areas. P&M funds were also used for planting, if needed. Based upon today's theme of "MOTHER NATURE'S WAY IS BEST", I seriously doubt if any significant tree planting will take place on the Warm Wildland Fire. Short-term this decision may be expedient. Long-term it is a strategic error, in my opinion.	Comment noted.
7	28	Jim Koons	2. Funding priorities and availability need to be identified. Impacted stakeholders need to be told how THE REHABILITATION AND RESTORATION GAME is going to be played in view of required trade-offs.	Comment noted.

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7	29	Jim Koons	I hope the above comments will help you deal with the Warm Fire dilemma (all the alternatives are unsatisfactory – to some one). I am afraid a lot of people learned a lot of lessons (the hard way) from the Warm Fire. Please see the attached list of questions to which I would appreciate a reply.	Comment noted.
7	30	Jim Koons	Please keep in mind that I have been out of the game for over ten years. However, I have spent over 28 years running around in the timber on the NKRD and have some idea as to what has been happening on the ground. I wish you the best of luck in dealing with the Warm Fire challenges.	Comment noted.
7	31	Jim Koons	DESIRED FUTURE CONDITIONS: How many acres were burned by forest type?	This will be displayed in the EIS.
7	32	Jim Koons	2. How many acres are you planning to plant (trees) in each forest type?	This is being designed. aspen = 0, pj- o, mixed conifer = FWS input
7	33	Jim Koons	DEFORESTATION: 1. Does your WFU and prescribed fire planning account for the risks associated with the transition zone forest types on the NKRD?	Wildfire use is outside the scope of this project.
7	34	Jim Koons	2. if so, what specific steps are planned to protect transition zones?	Wildfire use is outside the scope of this project.
7	35	Jim Koons	TIMBER HARVEST: 1. How long before you will be able to begin on the ground treatments?	Some on the ground treatments have occurred through hazard tree removal by ADOT and the district is working on hazard tree removal with an estimated implementation date in the summer of 2007. Activities under this planned EIS are estimated for summer-fall 2007, but this depends upon the analysis and appeal processes.
7	36	Jim Koons	WATERSHED: 1. Are you planning to ask various stakeholders to be involved in watershed rehabilitation and restoration decisions and implementation plans?	BMP's will be incorporated with this project. Watershed restoration opportunities may occur through separate efforts such as through BAER with drift fences and road stabilization.
7	37	Jim Koons	GRAZING: 1. What will be the potential forage capacity on the Warm Fire Wildfire burned area (39,000 acres) five (5) years after the burn?	Impacts to grazing will be discussed in the EIS. Calculating forage capacity is outside the scope of this analysis. Calculating forage capacity is done during allotment management planning. The grazing allotment plan is the appropriate place to address forage capacity.
7	38	Jim Koons	WILDLIFE 1. What specific wildlife water restoration and improvement investments are you planning to make post fire?	Range stock tanks are planned to be cleaned out in the spring of 2007 under the permit. Water quality sampling will occur in the lakes and stock tanks in spring 2007 and depending upon the results mitigative activities will be applied.

check fire plan

check fire plan

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7	39	Jim Koons	2. What kind of remedial water supply actions are planned to meet the immediate requirements of wildlife?	No remedial water supply actions are being planned at this time. Water repairs are planned for the spring as animals return to the burn area.
7	40	Jim Koons	VISUALS: 1. What are the immediate plans to deal with the fore ground and background visuals along major travel corridors, post fire?	Visuals will be considered in the EIS. No immediate plans to deal with the foreground and background visuals along major travel corridors. Removal of hazard trees will remove dead trees in the
7	41	Jim Koons	VEGETATIVE STRUCTURAL STAGES (VSS) 1. What are the Forest's plans for implementing VSS guidelines across the forest landscape – post fire?	Follow the Forest Plan direction No. GH guidelines VSS structure, page 27.
7	42	Jim Koons	WILDLAND FIRE "USE" FIRES 1. Does the KNF have an approved Wildland Fire "USE" Fire Plan?	Yes, through Amendment #4 to the Forest Plan.
7	43	Jim Koons	2. Would a PRESCRIBED FIRE have been approved and allowed to burn during the same fire conditions that existed during the same time period that the Warm "USE" fire was allowed to burn?	The objectives of a prescribed burn would need to be reviewed to determine appropriate burn windows. Wildland fire use objectives are to restore fire as a natural role with potentially wider ranges of acceptable effects. Evaluating the use of prescribed fire and wildland fire use is outside the scope of the EIS.
7	44	Jim Koons	3. What risk assessment criteria, evaluation and approval procedures are required prior to implementation of a Wildland Fire "USE" Fire project?	The WFIP Implementatin Reference Guide outlines wildland fire use criteria. Evaluating wildland fire use is outside the scope of the EIS.
7	45	Jim Koons	4. Will a BAER report be prepared for the Warm "USE" Fire?	A BAER report was not completed and will not be completed for the fire use area. The fire use area is outside the scope of the EIS.
7	46	Jim Koons	5. What was the reason for closing NKRD road 220 located with the WFU area?	This road was closed for resource protection and public safety.
7	47	Jim Koons	6. What steps will be taken to rehabilitate and restore the burned area (19,000 acres) within the WFU area?	This is outside the scope of the EIS.
7	48	Jim Koons	FIRE "USE" COST/BENEFITS 1. What did it cost to burn the Warm Fire "USE" Fire area (19,000 acres)?	The approximate cost for managing the fire use portion was approximately \$2.8 million.
7	49	Jim Koons	2. What did it cost to suppress the Warm Wildland Wildfire (39,000 acres) area?	The approximate cost for fire suppression activities was approximately \$5.2 million.
7	50	Jim Koons	3. What are the estimated costs to rehabilitate and restore the WFU fire burned area?	There are some hazard tree removals and other future projects may be proposed that overlap the WFU area. Costs are unknown at this time. This is outside the scope of the EIS.
7	51	Jim Koons	4. What are the estimated costs to rehabilitate and restore the Warm Wildfire burned area?	The costs of items considered within the EIS will be displayed in the EIS. The overall costs for the entire rehabilitative efforts are outside the scope of the EIS. However, the BAER planning costs were approximately \$354,000 and additional funding was requested for reseeding if the initial seeding efforts are not effective.

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7	52	Jim Koons	5. What monitoring activities are planned to determine if the USE of fire is likely to create the desired future condition within a reasonable time frame?	The Forest is considering monitoring proposals for the wildland fire use area separate from activities within the wildfire suppression area. Activities in the fire use area are outside the scope of the EIS since this project is considering actions within the wildfire.
7	53	Jim Koons	PUBLIC RELATIONS: 1. Do you plan to share with the public what LESSONS you LEARNED as a result of the Warm Fires?	This information was shared at the public meeting in October and will be posted on the Forest website.
7	54	Jim Koons	2. What actions are you planning to take to better educate stakeholders about the USE OF FIRE in the forest?	This is outside the scope of the EIS. The district is designing interpretive information regarding fire use.
7	55	Jim Koons	FUNDING 1. Does USFS POLICY TO "PROTECT AND SUSTAIN ECOSYSTEMS" imply that REHABILITATION AND RESTORATION will put burned areas on the KNF back into its pre-fire conditions?	The goal will be to move toward the DFC identified in the Forest Plan. This may be similar to prefire conditions in some areas and different conditions elsewhere
7	57	Jim Koons	3. How much money will you be short?	Funding allocation is outside the scope.
7	58	Jim Koons	4. What actions can your stakeholders take to help insure that needed funding is available?	Funding allocation is outside the scope.
8	1	KBPI	We would like to be involved with anything that pertains to the Warm fire. If we could be of any assistance please let us know we are currently on your stakeholder E-mail list.	Comment noted.
i	1	10/12 Stakeholder Trip	Request for a comprehensive literature review to organize available information related to fire, fuels and salvage logging.	Appropriate searches of available literature will be done and considered in this analysis.
i	2	10/12 Stakeholder Trip	Base salvage logging on economics - not feasible to address every acre, focus on logical areas.	This was considered in the criteria to identify potential salvage areas.
i	3	10/12 Stakeholder	In considering where to invest in reforestation:	
i	4	10/12 Stakeholder Trip	Review site appropriateness for species and use native seed sources	This will be considered for reforestation.
i	5	10/12 Stakeholder Trip	Look at aspen response, opportunity to restore aspen on the landscape. May consider under planting in some aspen.	This will be considered for reforestation.
i	6	10/12 Stakeholder Trip	Where conifer seed sources are absent	This will be considered for reforestation.
i	7	10/12 Stakeholder Trip	Plant in areas where salvage logging takes place	This will be considered for reforestation.

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i	8	10/12 Stakeholder Trip	Plant in a pattern that will set up future spacing similar to presettlement conditions.	This will be considered for reforestation.
i	9	10/12 Stakeholder Trip	Do not plant in rows - visual concern	This will be considered for reforestation.
i	10	10/12 Stakeholder Trip	Work with NAU for landscape data of tree density/canopy cover/basal area/understory data	This will be considered for reforestation.
i	11	10/12 Stakeholder Trip	Describe priorities, where do we expect areas to burn	Comment noted.
i	12	10/12 Stakeholder Trip	Include rehabilitation in the long term strategy	Comment noted.
i	13	10/12 Stakeholder Trip	Snags:	
i	14	10/12 Stakeholder Trip	clump rather than leave evenly spaced	this has been incorporated.
i	15	10/12 Stakeholder Trip	consider removing snags in aspen stands along scenic routes	this is being considered.
i	16	10/12 Stakeholder Trip	No new roads	No new roads are anticipated.
i	17	10/12 Stakeholder Trip	Leave more snags in goshawk foraging areas adjacent to the remaining nest areas.	Activities are not anticipated to occur in foraging areas adjacent to the remaining nest areas.
i	18	10/12 Stakeholder Trip	Put project record in web location for availability of notes and maps of project	The website is under construction.

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