



May 22, 2017

Ed Armenta
Forest Supervisor
Inyo National Forest
351 Pacu Lane, Suite 200
Bishop, CA 93514



Dear Ed:

We are writing you today to offer a summary of recommendations on forest plan components and content that we think important to include in the revised forest plan for the Inyo National Forest. These recommendations were included in the comments we submitted in August, 2016. We understand that you plan to have a final plan, final environmental impact statement, and draft record of decision available for public review in October, 2017. We ask that you include these in the final revised forest plan and final EIS.

Terrestrial Ecosystems

Old Forests

To protect and, conserve, and provide for the ecological integrity of old forests, the forest plan should include:

- A managed reserve system that sets the conservation of old forests as its priority and manages disturbance regimes including fire, insect outbreaks, and disease within the natural range of variability;
- Standards and guidelines that limit removal of large trees across the entire landscape; and
- Standards and guidelines that require the retention of significant numbers of medium sized trees to provide for the recruitment of large trees in the future.

Complex Early Seral Forests (CESF)

To provide for the ecological integrity of CESF, the forest plan should include:

Definition:

- CESF is the stage of forest development following a disturbance in a mature forest that produces significant mortality, generally greater than 50 percent of the basal area. The death of overstory trees creates openings that allow other plants and tree seedlings to

reoccupy the site. The CESF stage is characterized by high densities of snags, the development of shrub cover and other native post-disturbance vegetation, downed wood, and natural conifer regeneration. This stage is allowed to develop unassisted except for the use of prescribed fire and wildfire managed for ecological benefits.

Desired Conditions:

- The percentage of the forested landscape that is complex early seral forest habitat is well distributed and within the range of natural variation for fire and other disturbance processes.
- The percentage of post-fire areas composed of high severity and moderate severity burned forest is within the range of natural variation to provide complex early seral forest habitat and forest heterogeneity (not including plantations that burn at high severity).
- High severity patch sizes and the percentage of the post-fire area composed of larger high severity patches is within the range of natural variation to provide a range of patch sizes that will support viable populations of wildlife that thrive in these habitats (e.g., black-backed woodpecker and other post-fire associated birds).
- The duration of CESF stage is moderated only by forest type, site conditions, and appropriate disturbance regimes, and results in a biologically diverse progression of forest development.
- Cavities for secondary cavity nesters are sufficiently abundant and well distributed to support birds and other animals that depend on them.

Objectives:

- The total amount of complex early seral habitat for each forest type has increased by X percent over 10 years and X percent over 20 years. **Note:** Set values based on current condition and expected disturbance frequencies in the desired conditions for specific forest type.
- Fifty percent of the CESF created in the first decade of the plan will be treated with prescribed fire in the second decade of the plan and consistent with the fire regime for the forest type.

Standards:

- Except to address hazard trees, no salvage logging, herbicide use to reduce competition with conifer seedlings, or reforestation shall occur in areas that meet the desired conditions for complex early seral forest or are important to sustain wildlife.
- Except to address hazard trees, no trees with green needles shall be salvage logged. **Note:** This standard applies to all post-wildfire environments.
- Snags and other fuels may be managed in strategic areas identified specifically to provide for firefighter safety as part of a landscape-wide and long-term prescribed fire program.
- Outside of strategic areas identified specifically to provide for firefighter safety as part of a landscape-wide and long-term prescribed fire program, no standing dead trees shall be felled or downed wood shall be piled and burned or otherwise removed from areas that meet the desired conditions for CESF or are important to sustain wildlife.

Guidelines:

- When salvage logging does occur after meeting desired conditions and accounting for wildlife needs, 20 percent of the area of each unit should be composed of snag retention patches to enhance structural complexity and biodiversity.
- Snag retention patches should be designed based on the following criteria:
 - a. Vary the patch sizes from 0.5 acres to 10 acres;
 - b. Shapes of patches should be variable, e.g., circular, elongated or connected stringers; and
 - c. Intervening areas outside of patches would retain trees scattered throughout, specifically 8-10 non-commercial trees (10" to 18" dbh with the upper size determined by commercial value of the tree)
- Snag retention patches should be located based on the following criteria:
 - a. Large (greater than 20 inches dbh) pre-fire snags present (e.g., look for the broken tops or hollows);
 - b. Large fire killed (greater than 24 inches dbh) sugar pine, ponderosa pine, Douglas fir present, and followed by other species (in that order of priority);
 - c. Very high density of medium sized snags (12 to 24 inches dbh); and
 - d. Presence of vigorous natural herb/shrub/conifer regeneration.
- To address safety, tree falling should be limited to trees within 1.5 tree lengths of roads or other factors that trigger falling of hazard trees. Retain salvaged trees as down wood to meet desired conditions.
- Allow natural regeneration to occur within 2,000 feet of green forest.
- When necessary, management of competing shrubs in replanted areas should be limited to hand control and prescribed fire.
- Beyond 2,000 feet and when natural regeneration is not occurring, reforestation should be designed to create founder forests with small planted areas (<2 acres) of variable shape within a larger (10-acre) unplanted area.
- When a wildfire or portions of a wildfire meet desired conditions, the Public Affairs Program should identify the benefits of disturbance to wildlife and biodiversity in press materials and on the forest's website.

Aquatic and Riparian Ecosystems

- Retain existing standards and guidelines for riparian conservation areas and critical aquatic refuges (or conservation watersheds)
- Adopt a system of conservation watersheds based on a repeatable and scientifically defensible methodology, consistent with the information and principles provided in our scoping comments and comments on the DEIS.
- Adopt standards and guidelines to ensure that the ecological integrity of aquatic systems is maintained when properly functioning and restored when not properly functioning and that management does not retard or prevent attainment of the desired conditions.
- Adopt objectives that focus achieving improvement of conditions and not maintenance of existing conditions
- Adopt an objective for meadow restoration that significantly increases the acres proposed in the draft plan.

- Adopt standards and guidelines that protect meadows and other special aquatic features, such as seeps, springs and fens, from land disturbing activities known to adversely affect these aquatic features, such as grazing and poorly designed roads and trails.
- Provide a road map that establishes and clearly links the functional relationship between conservation watersheds, key watersheds, riparian conservation areas, the analysis undertaken to set restoration priorities, and the actual restoration priorities. This guidance should provide a clear description of how the plan components and other content inform project planning and to protect and restore aquatic ecosystems.

At-Risk Species

At-Risk Animals

- Clearly identify the specific at-risk wildlife species covered by the forest plan.
- Clearly and as specifically as possible, identify the necessary ecological conditions on which each at-risk species depends.
- In addition to those named as Species of Conservation Concern in the draft EIS, include on the SCC list those species identified by Californian Department of Fish and Wildlife as Species of Greatest Conservation Need, i.e., summer tanager, olive-sided flycatcher, yellow warbler, and northern goshawk, and as imperiled in California (i.e., black-backed woodpecker, great gray owl).
- Adopt the specific plan components identified for American marten, Sierra Nevada and Nelson bighorn sheep, willow flycatcher, great gray owl, Sierra Nevada red fox, Sierra yellow-legged frog, Yosemite toad, and sage grouse identified in our comments on the DEIS and included with this letter as Attachment A.

At-Risk Plants

- Retain the existing standard in the forest plan that addresses survey requirements and modify to reflect SCC plants: “Conduct field surveys for TEPS plant species early enough in the project planning process that the project can be designed to conserve or enhance TEPS plants and their habitat. Conduct surveys according to procedures outlined in the Forest Service Handbook (FSH 2609.25.11). If additional field surveys are to be conducted as part of project implementation, survey results must be documented in the project file. (See Chief Bosworth’s memo, November 18, 2004).”
- Adopt plan components that specifically restore and protect the habitats required by SCC plants and ameliorate the threats to these plant species.
- Include objectives designed to improve habitat condition for specific SCC plants. Such actions could include meadow or other riparian habitat restoration, or the restoration of fire in fire-adapted habitats for targeted SCC plant species.
- Include the Desired Condition (TERR-SH-DC-03) from the draft plan of the Sierra National Forest (p. 32): “Conditions remain suitable for long-term sustainability of the suite of native plants adapted to rocky and gravelly habitats and the insect pollinators that rely upon them.”

- Adopt standards and guidelines that are grouped by the threats identified in the evaluation of each SCC, such as grazing, fire suppression where plant populations require fire, salvage logging and reforestation activities, mining, and trail use or off-road recreation.
- Include monitoring requirements in grazing standards and guidelines for SCC plants, such as:
 - No active allotments should be permitted in known populations of an at-risk plant unless the threat is minimal as determined by the species ranking and the best available science. Where grazing is permitted in at-risk plant populations, annual monitoring of plant population status is required.
 - Where the status of an at-risk plant population is determined to be moving in a downward trend, modify or suspend grazing.
 - Grazing should be modified or suspended in areas with degraded at-risk plant populations until monitoring indicates the population has recovered.

Fire Management

We ask that you retain the emphasis in the draft plan from May, 2016 on using managed fire to achieve ecological benefits and specifically that planned and unplanned ignitions be used wherever possible to accomplish forest health, wildlife habitat, or other ecosystem restoration objectives. In addition, we recommend that the following be added to the forest plan:

Desired Conditions:

- The network of agencies and stakeholders creates a stable socio-cultural environment that fosters the collaborative management of fire for resource benefits.
- Social investment and financial resources support the decrease in fire exclusion and an increase in the use of managed fire necessary to achieve desired conditions for ecological restoration and public health and safety.

Goals:

- Establish at least two wildland fire modules¹ on the national forest.
- Work with adjacent land management agencies to identify methods to reduce costs and increase effectiveness in restoring fire to the landscape.
- Prior to and during the fire season assess conditional thresholds under which desired conditions can be met for the strategic fire management zones. Work with tribes and adjacent landowners to identify areas and resources of value considered in the assessments.
- Develop and implement a collaborative fire training program, e.g., like TREX², to expand prescribed fire opportunities and create a skilled public and private work force to support the use of fire for resource benefits.

¹ Wildland fire modules are generally made of 7 or more highly trained fire professionals. The primary purpose of a wildland fire module is managing rather than suppressing fires to reduce costs, assisting other units with resource benefit fires and prescribed fires, meeting the agency project preparation objectives, and executing prescribed fires within narrow burn windows. Modules can also monitor fire effects, manually reduce fuels in management units, and assist other agencies with fire use and fuels treatment projects.

² TREX is a fire training program designed by The Nature Conservancy with support from other fire practitioners and experts (<https://www.nature.org/photos-and-video/video/trexprescribed-fire-training-exchange?redirect=https://301>).

- Wildland fire modules serve as a dedicated team of specialists and practitioners to lead to the application of prescribed and managed fire and are supported by fire suppression staff as needed.
- Plan prescribed and managed fire projects over large landscapes to increase efficiency and readiness to utilize or apply ignitions when environmental conditions are appropriate.

Objectives:

- Two wildland fire modules will be established on the national forest during the first two-years of plan implementation to support prescribed fire and managed fire pace and scale needed to reach desired conditions.
- Restore low and moderate severity fire mosaics of beneficial fire using prescribed fire on 10,000 to 14,000 acres per year within 10 to 15 years following plan approval.³
- Create a network of reduced fuels along ridgelines, roads, or other natural or man-made features to support the use of large prescribed fires and in managing wildfire for ecological benefits in four large landscapes (greater than 30,000 acres) within 10 to 15 years following plan approval.

Guideline:

- Prior to prescribed fire use in stands of older trees (especially, ponderosa pine, Jeffrey pine, and sugar pine) with significant duff build up, utilize tree protection mitigation measures described in RMRS-GTR-238, where practical, to limit mortality.

Strategies and Partnership Opportunities (other content as allowed by 36 CFR 219.7)

- Participate in the Fire MOU Partnership to build a broad base of support for the increased use of wildfire and prescribed fire for resource benefits through intensified outreach and education efforts.
- Work with the Fire MOU Partnership to expand collaborative efforts to support multi-jurisdictional burn projects via cost-share agreements and strategic fire planning.
- Establish a collaborative group with air regulators, air quality scientists, concerned stakeholders and public officials to facilitate information exchange, collaborative outreach and education efforts, and joint media response efforts focused on presenting the “net gain” in public benefits from expanded fire use.
- Coordinate with Fire MOU Partners to develop consistent, positive messages regarding fire ecosystem benefits, public health and safety, fire safe living, smoke management, collaborative planning and the “net public benefits” of a scaled up fire program.
- Actively engage fire scientists in public and media outreach, fire science information transfer, and in discussions with policy makers regarding increases in fire use.

³Annual estimates for each national forest were based on the annual area burned under a natural fire regime as described in Exhibit II.1. The values for the objectives were set by taking roughly 50 percent of the total area burned annually for vegetation types of pine, mixed conifer, western white fir, red fir, and giant sequoia combined. We believe this is a reasonable starting point for pace and scale for the eventual attainment of the expected fire regime for these types.

Sustainable Recreation

Recreation Opportunity Spectrum (ROS)

- The forest plan should include ROS plan components (including standards and guidelines) that will advance the desired characteristics of the primitive and semi-primitive nonmotorized ROS classes.
- ROS settings should reflect roadless values, with the large majority of IRAs zoned for primitive or semi-primitive non-motorized uses.

Management of Over-Snow Vehicle Use

To provide for sustainable winter recreation, the final plans should include, at a minimum:

- An objective that implementation-level winter travel planning to comply with subpart C of the Travel Management Rule will be completed within three years of forest plan approval;
- A standard setting a minimum snow depth of 18 inches for cross-country OSV travel, consistent with the best available scientific information;
- Additional suitability determinations for OSV use that address both legal suitability and practical suitability based on terrain, snowpack, wildlife habitat, and other conditions that impact OSV travel, and an objective that unsuitable areas will be subject to appropriate closure orders within one year of plan approval; and
- Winter-specific ROS classifications.

Management of Mechanized Uses

- Limit mechanized uses such as mountain biking to a designated system.

Wild and Scenic Rivers

Ineligible Segments – Reconsider the potentially eligibility of several stream segments not determined eligible in the 2016 draft plan revision/DEIS, including the lower segments of Mono Basin streams (Mill Creek, Lee Vining Creek, Rush Creek, Walker Creek, and Parker Creek), Dexter and Wet Canyons, Black Canyon, George Creek, Independence Creek, Birch Creek, Little Hot Creek, Mammoth Creek, Nine Mile Creek, O’Harrel Canyon Creek, and Olancha Creek.

Eligible Segments – Address mapping, segmentation, outstandingly remarkable values, and tributary issues raised in public comments for eligible segments of Cottonwood Creek, Golden Trout Creek, Hot Creek, Lee Vining Creek, Lone Pine Creek, Middle Fork San Joaquin River, Rock Creek, and Walker Creek.

Historical/Cultural Values – Use existing information and best professional judgement to identify outstandingly remarkable historical and cultural values to determine eligibility (no stream was found eligible with outstandingly remarkable historical or cultural values because of the lack of comprehensive surveys).

Comprehensive River Management Plans (CRMPs) – Make a commitment in the revised plan to update the existing South Fork Kern CRMP and to develop CRMPs for streams designated by Congress in 2009 (Owens River Headwaters, Cottonwood Creek) to ensure protection of free-flowing condition, and outstanding values. Coordinate the South Fork Kern CRMP update with the Sequoia National Forest and the Cottonwood Creek CRMP with the BLM. Identify the outstandingly remarkable values of upper Deadman Creek in the Owens River Headwaters CRMP.

Standards – Add and clarify plan standards to protect the free-flowing condition, water quality, specific outstandingly remarkable values, and classification of eligible and designated streams.

Wilderness Recommendations

Some of our coalition members met with you in February, 2017 to share our highest priority areas for recommendation as wilderness areas. At that meeting, we highlighted the values for eleven areas we view as the highest priorities to recommend as wilderness areas. The details about these recommendations are in our original comments and in the summary we provided to you in February, 2017, which we have included as Attachment B to this letter. Those areas are:

- Glass Mountain (17,440+ acres)
- Dexter Canyon (13,014 acres)
- Ansel Adams Addition Northeast (7,212+ acres)
- Deep Spring North (34,164 acres)
- White Mountain Additions – East & West (10,329 acres)
- Piper Mountain Additions 1 & 2 (14,518 acres)
- South Sierra Addition East 1 (17,622 acres)
- Inyo Mountains Addition (4,840)
- Excelsior Mountains (44,719 acres)
- Deadman Canyon (15,445 acres)
- Soldier Canyon (10,037 acres)

Management of Recommended Wilderness

- The final plans should retain and strengthen the prohibition on motorized and mechanized uses in recommended wilderness.
- An additional standard should require that the areas be managed exclusively for non-motorized and non-mechanized uses.
- ROS classifications in the final plans should categorize recommended wilderness as primitive or semi-primitive non-motorized, and another standard should require that the areas be managed to maintain, restore, and enhance those settings.
- Plan components should ensure that fire management in recommended wilderness is identical to that in designated wilderness.

Inventoried Roadless Areas (IRAs)

- The Forest Service must meaningfully consider protective management for IRAs. At a minimum, the final plans must ensure compliance with the Roadless Area Conservation Rule (RACR) by identifying the locations of IRAs and providing plan components to ensure protection of roadless characteristics.
- The final plans should adopt a management area that encompasses IRAs protected under the RACR, as well as new roadless areas identified through the Chapter 70 inventory but not recommended for wilderness designation.
- ROS settings should reflect roadless values, with important IRAs zoned for primitive or semi-primitive non-motorized uses.

Forest Road System

- Consistent with subpart A of the Travel Management Rule and the substantive requirements of the 2012 Planning Rule, the final plans should provide a suite of plan components aimed at achieving an ecologically and fiscally sustainable transportation system over the life of the plans (Attachment C).

Designated Area: Mono Basin National Forest Scenic Area

Although we did not comment on this scenic area, we wish to highlight here the importance of clearly recognizing the Mono Basin National Forest Scenic Area in the forest plan. It is important that the forest plan provide sufficient information about the scenic area and the Scenic Area Management Plan that provides specific management direction that is in cases more restrictive than the draft plan issued in May 2016. The letter from the Mono Lake Committee (dated May 4, 2017) provides text describing the area and includes information about special protections and designations in the area. The MLC also suggests desired conditions and classification of scenic integrity for the area. We recommend that you adopt their suggestions in the final plan.

Thank you for your consideration of the above. We look forward to reviewing the final plans and accompanying documents. If you have questions about any of these recommendations, please contact Sue Britting (britting@earthlink.net; (530) 295-8210) to arrange a time to discuss.

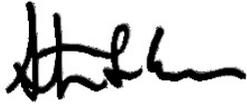
Sincerely,



Susan Britting, Ph.D.
Executive Director
Sierra Forest Legacy



Stan VanVelsor, Ph.D.
Regional Conservation Representative
The Wilderness Society



Steve Evans
Wild & Scenic River Consultant
Friends of the River

Ryan Henson
Senior Policy Director
CalWild/California Wilderness Coalition

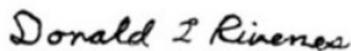


Pamela Flick
California Representative
Defenders of Wildlife



Greg Suba
Conservation Director
California Native Plant Society

Julie Anne Hopkins
Conservation Chair
Bristlecone Chapter
California Native Plant Society



Don Rivenes
Executive Director
Forest Issues Group



Frances A. Hunt
Eastern Sierra Organizer
Sierra Club



Alan Carlton
Sierra Nevada Team Leader, Sierra Club



Malcolm Clark
Range of Light Group (Toiyabe Chapter)
Sierra Club

Anne Henny
Co-Chair, California-Nevada Wilderness
Committee, Sierra Club



James Hines,
Co-Chair, California-Nevada Wilderness
Committee, Sierra Club



Malcolm Clark, Vice-Chair & Conservation
Chair
Range of Light Group, Toiyabe Chapter,
Sierra Club



Lynn Boulton, Chair
Range of Light Group, Toiyabe Chapter,
Sierra Club

Joe Fontaine
Kern-Kaweah Chapter, Sierra Club

Kevin Mueller
California Director
Western Watersheds Project

Lisa Cutting
Eastern Sierra Policy Director
Mono Lake Committee

Attachment A: Recommended Plan Components for American marten, Sierra Nevada and Nelson bighorn sheep, willow flycatcher, great gray owl, Sierra Nevada red fox, Sierra yellow-legged frog, Yosemite toad, and sage grouse

The following recommendations were extracted from the comments we submitted on the draft forest plan and DEIS comments on August 25, 2016. The recommendations included citations to the scientific literature that supported the recommendation. Some of those citations have been removed from the items below, but can be located in our original comment letter.

For all species, the necessary ecological conditions on which the species depends should be defined as specifically as possible. In cases where studies or species experts have defined specific thresholds or experts have made specific recommendations, such information should be clearly and specifically presented, including numerical thresholds and recommendations. In cases where another management objective conflict with or threaten a necessary ecological condition, a standard or guideline should be developed to ensure the conflicting interest does not take precedence over providing for the necessary condition.

American Marten

Include plan components for the “marten core habitat area” that guide activities in these areas including:

- Limiting disturbance during denning using a limited operating period
- Retaining habitat conditions that support denning
- Limiting vegetation management to reducing surface and ladder fuels to reduce fire risk
- Restoration treatments retain all large trees

In our scoping comments, we provided specific standards that are appropriate to apply to this management area (SFL et al. 2014, Appendix F, pp. F-199 to F-200).

Sierra Nevada and Nelson Bighorn Sheep

- Contact the bighorn sheep species experts at CDFW for maps showing the necessary buffer zones between domestic animals and bighorn sheep and incorporate this information into a plan component.
- Adopt as a goal the formation of a partnership between the Forest Service and other local and federal agencies to implement and enforce buffer zones.
- Adopt a goal to develop a partnership between the Forest Service, local landowners and other agencies to implement and enforce barriers and buffers to prevent the comingling of this Nelson bighorn sheep with domestic sheep and goats.

Willow Flycatcher

- Revise the desired conditions for meadows with historical occurrences of willow flycatcher include the following based on Green et al. (2003) and Loffland et al. (2014):

- 20-30% riparian deciduous shrub cover,
- 40% meadow cover by water,
- 2-4 m high riparian deciduous shrubs, and
- 525 m² average shrub area.
- Include standards and guidelines to ameliorate the threats to willow flycatcher, including the destruction of shrub vegetation resulting in loss of nesting sites, and cover for predator avoidance from grazing and other land disturbing practices.
- Include plan components based on the recommendations in Loffland et al. (2014) that promote active management in specific locations to achieve habitat targets that could support the persistence of this species.
- Ensure that willow flycatcher restoration priorities are central to watershed restoration priorities for the forest.
- Restore meadow habitat within 12 km of recent detections on Rush and Lee Vining Creeks and for all meadows greater than 50 acres.
- Improve the specificity of the following guideline to address importance of protecting habitat for willow flycatcher along tributaries to Mono Lake, Lee Vining and Rush Creeks: WTR-FW-GDL 01 Cooperate with federal, tribal, state and local governments to secure in-stream flows needed to maintain, recover, and restore riparian resources, channel conditions, and aquatic habitat during all basic Federal Energy Regulatory Commission (FERC), state and other authorized water use planning, water rights, and relicensing on the national forests. Coordinate relicensing projects with the appropriate state and federal agencies. Provide written and timely license conditions to the Federal Energy Regulatory Commission.”
- Modify RCA-MEAD-OBJ 01 to state “Take action to enhance or improve conditions on 5 to 10 meadows to address needs of willow flycatcher, great gray owl, Yosemite toad or mountain yellow-legged frog (possibly 2-3 meadows per species) within 10 years following plan approval.”
- Limit human and livestock activity to meet targeted habitat conditions for willow flycatcher, including 20-30% cover of riparian shrubs, and saturated soils.
- Conduct willow flycatcher surveys in suitable habitat every five years to determine status and habitat condition as described in the 2001 and 2004 plan revisions. If surveys detect willow flycatchers, prohibit livestock grazing in the meadow. If surveys did not detect willow flycatchers, late season grazing could occur, with utilization levels based on habitat condition.
- Prepare monitoring plans for areas supporting willow flycatcher and determine site-specific management actions that support willow flycatcher population and habitat recruitment per Loffland et al. (2014).
- Keep new developments (packstock, gathering areas, recreation areas, etc.) that attract cowbirds and other nest predators, such as pack stations and campgrounds, away from riparian areas to minimize the impacts of the cowbirds on willow flycatchers.

Great Gray Owl

- Include great gray owl as an SCC in the forest plan. The recent vehicle collision with an individual on the forest confirms the species is present and there are threats to its long-term persistence.

- Create species-targeted standards or guidelines to ensure that each of the significant ecological conditions necessary for viability are quantitatively described, and adequately provided. Ensure that significant stressors acting on great gray owls and the species habitat are sufficiently mitigated, particularly for those stressors resulting from Forest Service management, and that monitoring for compliance is assured.
- Develop a range management strategy for great gray owl that incorporates Kalinowski et al. (2014, p. 553) recommendation for not grazing when managing for voles, and to manage for voles in wet meadows excluding cows, and for gophers in drier sites.
- Develop plan components using management recommendations Wu et al. (2016, p. 5-10) including:
 - Where CMAs [‘Core Management Area,’ the rough equivalent of a PAC] overlap a grazing allotment, periodically assess meadow ecological condition and implement appropriate measures to remedy negative conditions or trends including: active hydrologic restoration, reducing grazing pressure, fencing, allotment boundary revisions, resting, or retiring the allotment. Allotments with multiple CMAs should receive priority for assessment and adjusted grazing management (p. 51). (p. 6)
 - Maintain meadow vegetation at a ‘sward height’ of at least 20 cm (8 in; Kalinowski et al. 2014) at mid- and high-elevations. If it is not possible to use the sward plate methodology, maintain herbaceous vegetation at a stubble height of 30 cm (12 in; Beck 1985, Greene 1995). Where meadows in CMAs are grazed, refrain from grazing between February 15th and August 15th (Beck 1985, Beck and Winter 2000) unless a meadow assessment indicates that sward height standards and range conditions and trend standards are being met. (p. 6)
- Riparian conservation area and meadow restoration needs: recruit nesting structures (snags, cavities, broken top trees, in oak, cedar and pine) near meadows, focus on hydrological restoration of wet meadows in National Forest lands and management of wet meadows.
- Increase meadow productivity and tall vegetation resources for great gray owl at lower elevation meadows and meadow surrogates (Wu et al. 2015).
- Conduct wet meadow restoration and habitat enhancements near old forest and protect old forests near wet meadows to address mid-elevation conifer habitat loss threat identified by BE/DEIS. Also, address threats identified in Winter (1986), Greene (1995), Keane et al. (2011), Kalinowski et al. (2014), and Wu et al. (2016), that grazing in wet meadows eliminates vole habitat and thus diminishes great gray owl chances at reproduction.
- Range should adjust season and number of head for allotments that are repeatedly not meeting utilization standards, or not maintaining meadows and riparian areas in proper functioning condition.
- Maintain or enhance the condition of the streams associated with meadows in PACs. Set a high priority on the repair of gullies, head cuts, soil compaction, stream bank instability, and avoid grazing on riparian vegetation.
- Enhance meadow and riparian vegetation to support prey species in meadow such as voles. Control conifer encroachment into meadows where they are not providing nest substrate (approx. <26” dbh). Conifers in the meadow provide perches for foraging, but can also shade and dry the meadow. Periodic thinning may be beneficial, but consider retaining tall stumps or girdling trees to retain perch values for areas where meadow is more than approximately 200’ wide (Beck and Winter 2000).

- Fencing is valuable for controlling grazing, but may adversely affect owl movement. Where possible, remove unused fences from within and around the meadows.
- Describe the necessary conditions for great gray owl nesting and foraging habitat using numeric values, including canopy cover and snag density requirements, and old forest association (and mixed conifer can and does include black oak in the case of great grays) using the best available science. Also use rangeland terms that are clear and well defined in the plans. Describe threats to great gray owl in more detail so that they can be addressed in plan components (i.e., add more detail to ‘forestry practices’ and ‘nest site availability’).
- Incorporate recommendations for conifer encroachment issues, hunting perches, managing low nest stand cover for fledglings, vehicle strike reduction, and OHV management recommendations from the 2016 CDFW Great Gray Owl Conservation Strategy (Wu et al. 2016, p.5-10).
- Providing for preferred prey includes providing for dead and downed wood in meadows (Bull and Henjum 1990). Provide a plan element to protect dead and downed material for voles in and near meadows.
- Follow Beck and Winter (2000) survey protocol to survey 6 visits prior to any ground disturbing activity in suitable habitat (per Wu et al. 2016, p. 9). Plan components should require surveys of all old forest patches near meadows as well as meadow surrogates, including oak over grass, 2-10-year-old severe wildfires, and failed plantations (R. Bridgman, Tahoe NF, Stanislaus NF, personal communication). Not conducting surveys for great gray owl along old forest habitats that occur on the edges of 2-10 year burn area could result in missing occupied nest stands.
- Regarding PAC delineation: Include entire acreage of meadow margin (roughly a 200 yard zone of forest edge surrounding the meadow) to be managed for nesting habitat. Note that historic nests have been found in inclusions of CWHR types 6, 5D, 5M, and 4D as small as 1/8 acre. Also include the meadow or meadow complex that supports the prey base for nesting owls (USDA Forest Service 2001a). Delineate the entire meadow or meadow complex where breeding owls are detected. In total, 1,000 acres of forest and meadow may be needed to sustain a pair. Delineate great gray owl PACs to encompass the entire meadow that the nest site or detection is associated with, and include nearby stringer meadows or other possible foraging areas such as recent burns, failed plantations, grasslands, etc. The proportion of the meadow to include depends on habitat condition. Habitat condition can vary greatly from site to site and from year to year. Within territories, pellets/feathers/fecal spots/sightings/telemetry locations are typically found throughout the meadow or meadow complex most adjacent to a nest stand. The size of an adjacent meadow or meadow complex varies greatly for the species from 25 acres up to and including meadows hundreds of acres in size. Note that meadows that provide suitable foraging habitat at the lower end of range of meadow sizes (i.e. 25-30 acres) are typically in very high ecological condition (e.g., Crane Flat, Yosemite National Park).

Sierra Nevada Red Fox

- Adopt plan components to avoid or significantly lessen the following threats: population isolation, alpine and subalpine habitat connectivity, and managing grazing, recreation and road use to avoid contributing to further disturbance, vulnerability to predation, population isolation, and possible inbreeding depression.

- Retain the limited operating period in the existing plans (2004 Framework ROD, p. 54: “analyze all potential management impacts to Sierra Nevada red fox and apply a limited operating period [LOP] from January 1 to June 30 to avoid adverse impacts to potential breeding,” and “Evaluate activities for a 2-year period for detections not associated with a den site.” (2004 ROD p. 54).
- Plan components requiring surveys, LOPs, providing for habitat connectivity, protection from disturbance from snowmobiles and winter recreation, camping and roads, should be incorporated into the revised plan.
- Assume that Sierra Nevada red fox occurs in all areas modeled as suitable habitat (e.g., by Cleve 2009),
- Providing canopy cover helps provide cover from predators, but plan components providing for this need to be bolstered. Use the recommendations in Britting et al. (2012) that we submitted in scoping to develop additional management recommendations for old forest species including SN red fox.

Sierra Yellow-legged Frog and Yosemite Toad

- All potential habitat within the known range of the two federally listed amphibians including high-elevation perennial streams, intermittent streams, ephemeral streams, stream side channels, lake shores, ponds, pools, springs and seeps should be considered occupied by these species until U.S. Fish and Wildlife Service-approved surveys have been complete.
- Regular monitoring of federally listed amphibians and habitat conditions will occur within each allotment occupied by listed amphibians. In coordination with the U.S. Fish and Wildlife Service, forest biologists and specialists will determine the number of monitoring sites, site locations and monitoring frequency. Habitat conditions to be monitored may include, but are not limited to, hydrology, vegetative cover, soil characteristics, and/or prey communities.
- Regular monitoring of amphibian occupancy and other information pertaining to population dynamics will occur on the three forests. Forest biologists and specialists will determine the suitable number of monitoring sites, site locations and monitoring frequency. Population metrics may include, but are not limited to, relative abundance, relative densities, survival rates, sex ratios, age structure, recolonization rates, or incidences of local extirpation.
- Management actions will be taken to remove sources of significant disturbance to meadows, whether the disturbance is caused by permitted livestock or other management activities occurring in meadows occupied by federally listed amphibians or in meadows that are in unsatisfactory condition. Actions to remove the meadow disturbance should include treatments such as exclusion of livestock or motor vehicles through fencing, actively herding livestock away from occupied areas, or trail reconstruction to bypass meadows.
- If the Forest Service decides to waive livestock exclusion standards where there is a specific management plan in place for an individual site with a federally listed amphibian species present, then within that plan the Forest Service shall agree to measure multiple indicators of population health to ensure the adequacy of the management plan.

- Willow browse by livestock should be actively monitored in representative transect locations within each allotment and also in critical habitat for listed amphibians in order to ensure that browsing by livestock does not exceed the standard.
- Meadows in unsatisfactory condition shall be excluded from livestock grazing and/or pack stock grazing until the meadows have recovered.
- Adopt a specific guideline for Sierra Nevada yellow-legged frog in order to keep livestock grazing away from yellow-legged frog breeding areas.
- Create standards and guidelines for pack and saddle stock within areas of special aquatic features, Yosemite toad habitat, and sites occupied by Sierra Nevada yellow-legged frog.
- Include SPEC-YT-GDL's 01 and 02 from the Sierra National Forest draft plan and revise to require a detailed plan identifying how managing the movement of stock in and around wet areas would minimize impacts to Yosemite toad more than exclusion from the entire meadow would.
- Include SPEC-YT-GDL's 01 and 02 from the Sierra National Forest draft plan and revise to require multiple indicators of population dynamics be measured/monitored and that livestock be excluded if monitoring is not conducted. Population dynamics metrics may include information on abundance, relative densities, survival rates, information on age structure, egg mass survivorship, or even incidences of local extirpation. Similar guidelines should be established for Sierra Nevada yellow-legged frogs prior to any final approval of the Forest Plan.
- Assess where federally listed amphibians' critical aquatic habitats are located on the Inyo NF, and ensure that the forest's critical aquatic refuges (or conservation watersheds) encompass critical habitat areas for federally listed amphibians, including Sierra Nevada yellow-legged frog and Yosemite toad.

Sage Grouse

The Inyo National Forest should incorporate the following minimum conservation measures into its final plan to support habitat goals.

- Identify and conserve essential sage-grouse habitat. *The Humboldt-Toiyabe National Forest applied its conservation measures to all occupied sage-grouse habitat.*
- Manage or restore essential habitat so that at least 70 percent of the land cover is sagebrush steppe sufficient to support sage-grouse with 15 to 40 percent sagebrush canopy cover. This standard will help support the Inyo Draft Revised Plan's goals of preserving large expanses of open sagebrush steppe and habitat connectivity.
- Identify and protect sage-grouse wintering areas. The lack of winter habitat can be a limiting factor in sage-grouse conservation.
- Restrict development to one site per section in essential habitat, or an average of one site per section per analysis area where appropriate to support conservation goals. The Inyo Draft Revised Plan contains no limit on the density of potential disturbance allowed in sage-grouse habitat, unlike every other sage-grouse conservation plan prepared by the federal government.
- Limit surface disturbance to less than 3 percent per section in essential habitat. The Inyo Draft Revised Plan contains no limit on the amount of disturbance allowed in sage-grouse

habitat, unlike every other sage-grouse conservation plan prepared by the federal government.

- Prohibit noise levels associated with any anthropogenic activity to not exceed 10 dBA above scientifically established natural ambient noise levels at the periphery of sage-grouse mating, foraging, nesting, brood-rearing and winter habitat during each season of use by sage-grouse. The Inyo Draft Revised Plan contains no limit on anthropogenic noise in sage-grouse seasonal habitats, which could be important for managing uses such as off-road vehicle use.
- Restrict development of all types (not just power lines and other structures that could serve as predator perches, p. 97, SPEC-SG-STD 10, p. 104, SPEC-SG-GDL 07) within four miles of sage-grouse leks. Larger buffers may be required to conserve the species.
- Exclude renewable energy development in essential habitat. Renewable energy development can be deleterious to sage-grouse.
- Exclude new rights-of-way in essential habitat.
- Develop valid existing rights-of-way in essential habitat in accordance with Sage-Grouse National Technical Team report prescriptions.
- Require that grazing strategies maintain at least 7 inches average grass height in nesting and brood-rearing habitat in sage-grouse range. Livestock grazing should be managed to support desired conditions for sage-grouse nesting and brood-rearing habitat.
- Restrict grazing until the completion of sage-grouse breeding and nesting period, and seasonally remove livestock from late brood-rearing habitat to allow sufficient regrowth of native grasses to ensure adequate residual height. Limited winter grazing may be appropriate, as long as it leaves sufficient residual grass height for nesting the next breeding season.
- Control grazing to avoid contributing to the spread of cheatgrass in sage-grouse habitat. The desired condition of <5 percent of annual grass in sage-grouse nesting habitat may be impossible to achieve unless grazing is managed to avoid contributing to spread on the landscape.
- Manage riparian habitat and wetlands to meet properly functioning condition; manage wet meadows to maintain native species diversity and cover to support sage-grouse brood-rearing.
- Facilitate voluntary grazing permit retirement in sage-grouse habitat. The Humboldt-Toiyabe National Forest Bi-state Distinct Population Segment Forest Plan Amendment Record of Decision (p. 16) includes model language.
 - RP-G-01: In bi-state sage grouse habitat, consider closure of grazing allotments, pastures, or portions of pastures, or managing the allotment as a forage reserve as consistent with maintaining sage-grouse habitat based on desired conditions as opportunities arise under applicable regulations, where removal of livestock grazing would enhance the ability to achieve desired bi-state sage grouse habitat conditions (ROD Table 1a or 1b).
- Prohibit prescribed fire in sagebrush steppe with less than 12 inches annual precipitation or areas with moderate or high potential for cheatgrass incursion.
- Prohibit vegetation treatments that reduce sagebrush canopy cover to less than 15 percent
- In areas of pinyon/juniper, avoid treating old-growth or persistent woodlands. In areas where sagebrush is prevalent or where cheatgrass is a concern, utilize mechanical

methods rather than prescribed fire.

- Prohibit herbicide application within 1 mile of sage-grouse habitats during season of use; prohibit use of insecticides.
- Limit motorized travel to designated routes trails in essential habitat. Implement appropriate seasonal restrictions on motorized travel to avoid disrupting sage-grouse during season of use.
- Close existing trails and roads to achieve an open road and trail density not greater than 1 km/1km² (.6 mi/.6 mi²) in essential habitat.
- Where valid existing rights-of-way are developed, restrict road construction within 1.9 miles of sage-grouse leks.
- Install anti-perching devices on existing transmission poles and towers. Dismantle unnecessary infrastructure.
-

Attachment C: Recommended Plan Components to Achieve an Ecologically and Fiscally Sustainable Road System

To integrate the approaches described in our DEIS comments (August 25, 2016) and satisfy the substantive mandates of the 2012 Planning Rule and subpart A, we recommend the following plan components and elements, which are supported by best available science, as the building blocks of a framework for sustainable management of forest roads and transportation infrastructure:

1. *Desired Future Condition is an appropriately sized and environmentally and fiscally sustainable minimum road system that facilitates enjoyable visitor experiences and forest programs.*

2. *Objectives provide a concise, measurable, and time-specific statement of a desired rate of progress towards achieving a sustainable minimum road system.*
 - a. Over the life of the plan, decommission and naturalize all unneeded roads (e.g., those identified as likely not needed for future use in the Travel Analysis Report (TAR)). Decommission at least 5% of roads identified as unneeded each year. Within 10 years of plan approval, decommission unneeded roads with the most benefit in achieving an ecologically and fiscally sustainable transportation network (e.g., roads posing a high risk to forest resources, roads in inventoried roadless areas and other ecologically sensitive areas, etc.).
 - b. Over the life of the plan, implement the minimum road system (pursuant to 36 C.F.R. § 212.5(b)).
 - c. Within 10 years of plan approval, address all roads within at-risk and impaired watersheds with poor or fair ratings for the Watershed Condition Framework (WCF) roads and trails indicator, and within watersheds contributing to sediment or temperature impairment under section 303(d) of the Clean Water Act.

3. *Standards ensure that roads do not impair ecological integrity and otherwise satisfy the substantive requirements of the 2012 Planning Rule and subpart A.*
 - a. To ensure ecological integrity and species viability, establish density standards based on the best available science for all motorized routes:
 - i. In important watersheds, wildlife habitat, migratory corridors, and general forest matrix; and
 - ii. For relevant species or resources present on the forest, including but not limited to threatened and endangered species and species of conservation concern.
 - b. Within 3 years of plan adoption, the forest shall identify its minimum road system and an implementation strategy for achieving that system that is consistent with forest plan direction and relevant regulatory requirements.
 - c. The forest shall identify and update as necessary its road management objectives for each system road and trail.

- d. With respect to temporary roads, the forest shall:
 - i. Within 5 years of plan approval, establish a publicly available system for tracking temporary roads that includes but is not limited to the following information: road location, purpose for road construction, the project-specific plan required below, year of road construction, and projected date by which the road will be decommissioned. Within 10 years of plan approval, all temporary roads will be reflected in the tracking system.
 - ii. All temporary roads will be closed and rehabilitated within two years following completion of the use of the road.
 - iii. Over the life of the plan, all unaddressed temporary roads will be decommissioned and naturalized.
 - e. All roads, including temporary roads, will comply with applicable and identified Forest Service best management practices (BMPs) for water management. Implement BMP monitoring to evaluate BMP effectiveness and identify necessary modifications to address deficiencies.
 - f. With respect to riparian management zones, the forest shall:
 - i. Establish widths for riparian management zones around all lakes, springs, perennial and intermittent streams, and open-water wetlands.
 - ii. Ensure that all management practices and project-level decisions with road-related elements in riparian management zones do not cause detrimental changes in water quality or fish habitat.
 - g. Watershed restoration action plans address road-related impacts identified in the TAR.
4. *Guidelines are designed to achieve a sustainable minimum road system*
- a. The forest shall make annual progress toward achieving the minimum road system and motorized route density standards.
 - b. Project-level decisions with road-related elements implement TAR recommendations and advance implementation of the minimum road system and motorized route density standards.
 - c. Routes (unauthorized, temporary, non-system, and system) identified for decommissioning and naturalization through the TAR or other processes will be closed, decommissioned, and reclaimed to a stable and more natural condition as soon as practicable.
 - d. Prioritize road decommissioning and naturalization to enhance landscape connectivity and ecological integrity based on:
 - i. Effectiveness in reducing fragmentation, connecting un-roaded and lightly-roaded areas, and improving stream segments, with a focus on inventoried roadless areas, important watersheds, areas of high tree mortality, and other sensitive ecological and conservation areas and corridors;
 - ii. Benefit to species and habitats;
 - iii. Addressing impaired or at-risk watersheds;
 - iv. Achieving motorized route density standards;
 - v. Enhancement of visitor experiences; and

- vi. Cost-effectiveness and feasibility, including opportunities to incorporate road decommissioning work into other forest projects.
 - e. Prioritize maintenance of needed routes based on:
 - i. Providing passenger vehicle access;
 - ii. Storm-proofing needs and opportunities (e.g., relocating roads away from water bodies, resizing or removing culverts, etc.);
 - iii. Addressing public safety concerns associated with road associated tree mortality;
 - iv. Restoring aquatic and terrestrial habitats and habitat connections; and
 - v. Increasing resilience.
5. *Monitoring program ensures progress toward Desired Future Condition using monitoring questions/indicators such as:*
- a. Percentage of passenger car roads with a safety condition rating of good.
 - b. Percentage of unneeded road miles decommissioned and reclaimed within inventoried roadless areas or areas with identified wilderness characteristics (in FSH 1909.12, chapter 70, section 72), critical habitat, or other area with recognized conservation values.
 - c. Percentage of subwatersheds with an identified minimum road system.
 - d. Percentage of subwatersheds with an implemented minimum road system.
 - e. Percentage of roads addressed in subwatersheds with a “poor” WCF roads and trails indicator, and in watersheds contributing to sediment or temperature impairment under section 303(d) of the Clean Water Act.
 - f. Miles/percentage of roads identified as likely not needed for future use in the TAR or other processes that have been decommissioned.
 - g. Miles of road improved or maintained to meet BMP guidelines.