

APPENDIX B

Standard Management Requirements (SMRs) and Resource Protection Measures (RPMs) For the Transition Project Proposed Action and Action Alternatives

<u>Concern/SMR #</u>	Task	Responsible Person(s)	Due Date
Soils/Fish/ Hydrology (1)	<p><u>Implement Best Management Practices (BMPs):</u></p> <p>These practices are required to meet the regional policy and to be consistent with the provisions of the 1981 Management Agency Agreement between the State Water Resource Control Board (SWRCB) and the Forest Service as the designated Water Quality Management Agency (WQMA) on National Forest Service Lands. See SMR (23) for special provisions for the Lahontan WQCB jurisdiction. The RMO analyses contains a table to display the relationship of the RHCA and the WBBZ.</p> <p>Site-specific BMPs and management requirements, unit layout, careful implementation and monitoring of BMP implementation are the primary means of minimizing impact in this project area. Some of the BMPs in this list are applied during the preliminary project design stage and therefore are not referenced directly in the SMRs below.</p> <ul style="list-style-type: none"> 1.1 timber sale planning process 1.2 timber harvest unit design 1.3 erosion hazard for timber harvest unit design 1.4 designated protection areas on sale area maps 1.5 limited the operating period of timber sale activities 1.6 protecting unstable lands. 1.8 streamside management zone designation 1.9 tractor-loggable ground 1.10 tractor skidding design 1.12 log landing location 1.13 timber sale erosion prevention and control measures 1.14 special erosion –prevention-disturbed lands 1.16 log landing erosion control 1.17 erosion control on skid trails 1.18 meadow protection during timber harvesting 1.19 stream course and aquatic protection 1.20 erosion control structure maintenance 1.21 accepting erosion control measures 1.22 slash treatment (prescribed burn) 1.24 special “C” provision 2.1 travel management planning and analysis 2.2 general guidelines for the location and design of roads 2.3 road construction and reconstruction 2.4 road maintenance and operations 2.5 water source development and utilization 2.6 road storage 2.7 road decommissioning 2.8 stream crossings 2.9 snow removal and storage 2.10 parking and staging areas 2.11 equipment refueling and servicing 2.12 aggregate borrow areas 2.13 erosion control plans (roads and other activities) 5.1 soil disturbing treatments on the contour 	Planner, Contracting Officer,	Proposed Actions, Contract Development, Implementation

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	5.2, 5.3, 5.6 limitations on tractor operations 5.4 revegetation of surface disturbed areas 5.7 pesticide use planning process 5.8 pesticide application according to label directions and applicable legal requirements 5.9 pesticide application monitoring and evaluation 5.10 pesticide spill contingency planning 5.11 cleaning and disposing of pesticide containers and equipment 5.12 streamside and wet area protection during pesticide application 6.2 water quality and formulating fire prescriptions 6.3 prescribed burning and protection of water quality 7.1 watershed restoration 7.3 protection of wetlands 7.4 Forest and Hazardous Substance Spill Prevention Control and Countermeasure (SPCC) Plan 7.8 cumulative off-site watershed effects		
Sensitive Fish / Plants / Wildlife / (2)	<p>Limited Operating Period If management objectives cannot be met by implementing the limited operating periods (LOPs), a qualified biologist will be consulted to determine more specific areas and kinds of activities that may be pursued. The biologist may recommend removing the limited operating seasons if sufficient information is provided by additional surveys or new information. If new TES animal or plant species are listed or discovered, or nesting TES species are found within 0.25 miles of project activities, a limited operating period appropriate for the species will be implemented based on the recommendation by a qualified biologist.</p>	Prep Officer, TSA, Hydrologist, Soil Scientist, Botanist, Fisheries Biologist, Wildlife Biologist	During Contract Prep, Logging, and Fuels Management Operations
Soils / Hydrology (3)	<p>Emphasis for Riparian Habitat Conservation Area (RHCA) Protection: Contract administrators and operators will be educated on the importance of minimizing impact while working within the RHCA. Units with RHCAs having known areas with restricted operations regarding sensitive sites will be identified for review with contract administrators and operators. Contract maps will be reviewed prior to bid to ensure sensitive areas are adequately represented on the map or on the ground. Stream courses and their respective protection limits (tractor keep out - TKO) are shown on the sale area map and/or are flagged on the ground. BMPs 1.1, 1.4, 1.8, 1.18 and 1.19.</p>	Prep Officer, TSA, COR Hydrologist, Soil Scientist	During Contract Prep, Logging, and Fuels Management Operations
Soils / Hydrology (4)	<p>Equipment Operations (Ground skidding (GSE), tractor and grapple piling equipment, and mastication): Equipment will minimize turning that result in ground disturbance. <u>Upland</u> Ground skidding equipment or tractors will be used on slopes no greater than 30% with short pitches up to 200 feet on up to 35% slope. Short pitches over 35% slope may be agreed to on a site-specific basis, after appropriate interdisciplinary review. All skid trails over 30% will be mulched.</p>	Prep Officer, COR , TSA & Soil Scientist	Project Design, Unit layout, Contract Prep, and During Logging and Fuels Management Operations

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	<p>Unless otherwise agreed in writing, skid trails pattern shall be agreed in advance of felling and main skid trails shall be flagged on the ground in advance of felling. Needed main skid trails shall be constructed in advance of skidding. Main skid trails will be spaced no less than 75 feet apart, except when converging, to minimize soil compaction. Additional skid trails may be agreed upon when soil conditions permit as described below.</p> <p>Harvesting operations will be confined to designated main skid trails until soil conditions are dry. Dry soil is defined as soil when sampled from a specified depth below the surface and placed in the hand and squeezed, the hand shows no significant moisture stains and follows the dryness criteria in Attachment A.</p> <p>Dryness criteria Specific harvesting equipment restrictions relating to dry soil are as follows:</p> <ol style="list-style-type: none"> 1) Equipment rated as low-ground-pressure, which is defined as equipment applying an average ground pressure of 8.0 or less pounds per square inch design load, is restricted to main skid trails until the soil is dry to a depth of 4 inches. 2) Equipment rated as high-ground-pressure equipment which is defined as equipment applying an average ground pressure of 8.0 or greater pounds per square inch design load, is restricted to main skid roads until the soil is dry to a depth of 10 inches and while minimizing damage to residual trees. <p><u>RHCAs</u> Within RHCAs, all equipment operations should be limited to slopes $\leq 20\%$ if the slope is directly above, and runs continuously down to a stream channel. If the slope is $> 20\%$, but does not slope directly into the creek, the 30% rule with no short pitches to 35% as stated in the previous paragraph should be followed. Do not track up and down drainage pathways and minimize all equipment movement through swales. When equipment is operating inside RHCAs, minimize ground disturbance with short perpendicular entries into the RHCA. Backblade any berms created by equipment that could concentrate water within areas with topographically low relief (flat) areas. Within RHCAs all bare ground resulting from equipment operations will be mulched.</p> <p>Dryness criteria RHCAs Specific harvesting equipment restrictions relating to dry soil are as follows: The operation of tracked equipment within stream and meadow RHCAs shall only be allowed when soils are dry as defined in Attachment A to 10 inches.</p> <p><u>Soils</u> All equipment operations will not operate over Aquoll and Boroll soil or Cryumbrepts-wet soil. This addresses the</p>		

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	<p>criteria for operations in water body buffer zones required for Category 6 timber waiver criteria, because with the 25 ft buffer from riparian vegetation and the commitment for no operations over Aquoll and Boroll soil or Cryubrepts wet and the cover the scenario where an equilibrated watertable at 2 feet might be present. In other words we do not operate over soils with an equilibrated water table at 2 feet under timber harvest activities. This includes but is not limited to locations in <u>Units C04 and C05.</u></p> <p>BMPs 1.1, 1.8, 1.9, 1.10, 1.13, 1.17,1.19, 5.2, 5.3, 5.6</p>		
Soils / Hydrology (5)	<p>Grapple and Tractor Piling: No tractor piling will occur in the RHCA except at pre-designated landings. Grapple piling will follow the same or greater distance restrictions as timber operations on wetland features drainages and perennial streams (fish bearing or non-fish bearing). As described in SMRs (4, 9, and 10). Along ephemeral streams and drainages, grapple piling will be maintained a minimum of 25 feet away from the break in slope on all topographically defined drainages. Piling will occur as far away from the drainage as feasible. Avoid creating large piles at the apex of broad swales and locate piles well outside of drainage pathways.</p> <p>BMPs 1.8, 1.9, 1.13, 1.19, 5.2, 5.3, 5.6</p>	Prep Officer, COR , TSA & Soil Scientist	During Sale, Design, Prep, Logging Fuels Management Operations
Soils / Hydrology, Noxious Weeds (6)	<p>Mulch and Ground Cover Sources: Where mulch is needed for ground cover and slash or wood chips are not available, certified weed free straw or rice straw will be used.</p> <p><u>Gravel Sources:</u> Utilize road surface gravel from weed free sources. Pre-inspect gravel sources for the presence/absence of noxious weeds prior to utilization of gravel from those sources.</p>	TSA, COR , & Soil Scientist, Botanist	During & Post Thinning and Road work.
Soils / Hydrology (7)	<p>Benched logging systems: Avoid benched skid trails, landings, and temporary roads. No benched temporary roads or landing needs were identified during the IDT process. If, during operations a need for a bench system is identified, then appropriate specialists will be consulted and the necessary mitigations will be implemented.</p> <p>BMPs 1.1, 1.12, 2.2, 2.6, 7.1, 5.2, 5.3, 5.6.</p>	Prep Officer & TSA, COR.	During Layout & Logging
Soils / Hydrology (8)	<p>Skid trails:</p> <ul style="list-style-type: none"> • Keep skid trail grades as gentle as possible, avoid straight up and down the slope skidding over distances greater than 200 feet. • Skid Trail will have waterbars spaced according to soil maximum EHR and slope. For special conditions with low gradient skid trails within RHCAs berms will be pulled rather than have water bars spaced, as approved by the SA in coordination with a soil scientist or hydrologist, so that water flows across trail. • Temporary ephemeral stream crossings for skid trails will use brush mats, dips, or corduroy. 	Soil Scientist, Hydrologist, and TSA, COR	During Logging, Fuels Management Operations

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	<ul style="list-style-type: none"> • Crossing materials will be removed as soon as possible following the treatment within the units, and will be implemented by October 15 of that year. • All crossing materials on seasonal channels that consist of additional fill will be removed immediately after use when operating after October 15 of that year. • Skid trails locations will be designated for <u>Units C04 and C05.</u> <p>Mulching Requirements</p> <p>Implement mulching of skid trails using slash, weed free rice straw or wood chips, whichever is available. Mulch will be used on skid trails located on soils with a very high EHR, and where the residual % ground cover does not meet the ESC requirements as described in the Soil Specialist Report for the Transition Project S&G #55, and on all skid trail crossing in RHCAs (designated skid trails and ephemeral and intermittent stream crossings), This requirement may be modified after an on-site inspection by the District soil scientist or hydrologist. If slash is used for mulch, the Fuels Officer will be involved prior to and during implementation.</p> <p><u>Skid trails in RHCAs:</u> Main skid trails will be located outside of the RHCA, wherever possible. Do not track up and down drainage pathways and minimize all equipment movement through swales.</p> <p>Avoid locating skid trail parallel to streams when working within RHCAs (RHCAs extend beyond the TKOs as described in the HFQLGFRA ROD and presented in the RMO analysis).</p> <p>BMPs 1.2, 1.8, 1.9, 1.10, 1.13, 1.19, 5.2, 5.3, 5.6.</p>		
Soils / Hydrology 9)	<p>Tractor and Mechanical equipment Keep Out (TKO) requirements, All Mechanical Operations: Do not operate equipment in seasonal wet areas, unless dryness is approved for operation by a soils scientist or hydrologist only after it is determined to meet the dryness criteria. This proposed action is expected to meet the criteria for a Category 6 Timber Waiver, as some activity areas are within the water body buffer zone described under the LWQCB waiver.)</p> <p>Dryness criteria The operation of tracked equipment within stream and meadow RHCAs shall only be allowed when soils are dry as defined in Attachment A to 10 inches. Exceptions will be allowed in specific locations, in which the hydrologist or soil scientist determine that equipment access when soils are dry to less than 10 inches would not cause resource damage.</p>	Soil Scientist, Hydrologist, Aquatics Biologist, and TSA, COR .	During Layout, Logging, and Fuels Management Operations

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	<ul style="list-style-type: none"> • RHCAs: Within the RHCA adjacent to perennial streams and special hydrologic features, a variable TKO will be provided based on hydrologic features and under consultation with the District aquatic biologist/ hydrologist/soil scientist during unit layout and contract administration. In general, these TKO areas are designated to be a minimum of 25 feet from a riparian feature as identified by presence of a wet soil type (associated with flood plain, springs or meadows), scour, riparian vegetation, slope break to channel etc. Seasonal drainages not having features that require increased TKO will implement a 25 foot TKO. Widths will increase along incised channels and where the slope to the channel increases. • Fens, springs and streams with riparian vegetation a minimum 25 foot TKO from riparian vegetation will be maintained. The TKO will be increased where hydrologic features merge or drainage becomes complex, where wet soils are present, or as needed to protect the spring hydrology. <p>Tractor operations will be excluded from the meadows according to the TKO identified in the field and as identified on the sale area maps.</p> <ul style="list-style-type: none"> • Please see SMRs 24 and 31 for specific guidelines about treatment in Units C04, C04a, C05 and C05a. Fens in these units will be specially protected with a no treatment zone that extends variably for at least 25 feet. For springs in these units, the 25' TKO will be flagged on the ground based on hydrologic features as prescribed above. <p><u>In addition to the standard 25 foot TKO applicable to all riparian features, some TKOs have been specially designated to protect aquatic habitat. See SMR 31 for more details.</u></p> <p>Fuelwood removal areas: Access by tracked or mechanical equipment will be limited to sites meeting dryness criteria as described in this section. Equipment may be prescribed to designated routes. Access by this equipment to the drainage features noted above will be restricted as described above.</p> <p>BMPs 1.2, 1.9, 1.10, 1.13, 1.16, 1.19, 5.2, 5.3, 5.6.</p>		
Soils/ Hydrology (10)	<p>Seasonal wet areas, meadows and springs: Do not operate equipment in adjacent areas surrounding seasonal wet areas, unless dryness is approved for operation by a soils scientist or hydrologist only after it is determined to meet the dryness criteria under SMR 9. The northern edge of the Unit B05 fragment (adjacent to plantation p70005 in the southwest portion of Unit B05) is bounded by a TKO based on either wet meadow or historical site, whichever is greater. Units C04a, C04, C05a and C05 have special no treatment provisions that are described in SMRs 9, 24 and 31.</p> <p>BMPs 1.2, 1.9, 1.10, 1.13, 1.16, 1.18, 1.19, 5.2, 5.3, 5.6.</p>	Hydrologist, Soil Scientist, TSA or COR.	Project Design, Unit layout, Contract Prep, and During logging and Fuels Management Operations

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Hydrology/Aquatic Biology (11)	<p>Special Marking Prescriptions in RHCAs</p> <p>Fish bearing perennial streams: In treatment units including Units C04 and C05 bordering fish bearing perennial streams, a special marking prescription will be implemented from the streambank to 100 feet within the treatment unit. In this area, leave trees will be designated at a closer spacing and components of variable spacing will be applied for larger trees.</p> <p>Along well-defined seasonal drainages, spacing may be variable; however, overall spacing will be decreased from upland treatment.</p> <p>Group Selection: No groups will be placed in RHCAs. BMPs 1.2, 1.13.</p>	Soil Scientist, Hydrologist, Botanist and TSA	During Layout and Logging
Soils / Botany/Hydrology (12)	<p>Utilize existing landings where possible: New and existing landing locations potentially used are shown in the EA map, "Landings and water features." Locate all new landings off of main public travel corridors. No new landings will be located within an RHCA unless deemed necessary by the interdisciplinary team; when feasible preferably choose landings outside of the RHCA. No new landing locations have been identified as needed within RHCAs. All landings in RHCA will be subsoiled and mulched unless a hydrologist/soils scientist determines it is not necessary. If construction or relocation of a landing within an RHCA appears to be necessary, consult with the appropriate resource specialist to ensure potential impacts are mitigated.</p> <p>BMP 1.2, 1.12, 1.13, 1.16, 1.19.</p>	Soil Scientist, Hydrologist, Fisheries Bio, and TSA	During Logging and Fuels Management Operations
Soils / Hydrology (13)	<p>Landing locations shall be carefully planned to minimize the number needed, and will consider site-specific factors such as topography, watershed and other resource protection concerns, and contract operational needs. For landings that service more than 15 acres of harvest, Purchaser shall stage-log by felling, skidding and removing of included timber in two or more separate operations to limit landing size.</p> <p>Where site-specific resource protection concerns are not otherwise limiting, the number of landings should not exceed 1 landing per 30 acres. To minimize the number of landings, utilize roads for skidding unless site conditions rule this out due to possible safety or resource protection concerns.</p> <p>Needed landings were identified during the IDT process. BMP 1.2, 1.12, 1.13, 1.16, 1.19.</p>	Prep Officer, Soil Scientist, Hydrologist, Fuels Officer, & TSA	During Project Design, Contract Prep, Logging, and Fuels Management Operations
Soils / Hydrology (14)	<p>Subsoil with a winged subsoiler on landings and the first 100 feet from the landing's primary skid trails. Subsoiling other skid trails in highly compacted areas will be evaluated on a site by site basis. The need for the tilling of skid trails would be reviewed by a soil scientist or hydrologist, and the sale administrator, and would be restricted to areas on slopes less than 25%, where residual trees would not be excessively damaged (root tearing leaving areas open to disease) and on those trails that do not contain excessive rocks unless otherwise agreed with the watershed specialist.</p>		

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Soils / Hydrology (15)	<p>BMPs 12.21,1.16.</p> <p>Road Management: <u>Coordination with O&M Roads Manager</u> Before pulling equipment from the sale area, the SA will coordinate a review period with the Operations and Maintenance Roads Manager to ensure road features (drainage, surface, etc.) achieve road management objectives.</p> <p><u>Road Dust Abatement</u> Water will be used on major transportation routes for dust abatement. Water will be preferred except on roads where distance limits practical application of water.</p> <p><u>Permanent Roads</u></p> <ul style="list-style-type: none"> • Erosion control for road drainage will be provided as needed. • Maintain an out-sloped road surface wherever possible. • Provide drainage improvements where needed. • Utilize drivable dips and out sloped road surfaces where feasible. • Avoid disturbing cut and fill slopes as much as practicable. • Where culverts need to be replaced due to damage during operations, ensure that the culverts are placed at grade, provide for aquatic passage, and ensure road fill placed over a culvert segment is minimized (coordinated with the Roads Manager). • Road maintenance (grading and surfacing) shall not cause interruption hydrologic connectivity of the existing drainage network (maintain all existing drainages). • To maintain waterbars, waterbar outlets that do not exist on naturally vegetated ground or on ground with enough organic material (such as mulch or slash) or rocks to disperse flows will have outlets armored. • Follow water source SMR 17. <p><u>Ephemeral Stream Crossings on temporary roads</u> Crossings will be designed to provide measures to pass flows, and may include extra protection measures, such as gravel, culverts or drainage controls when needed. Typically, the flow volume through these crossings is low and there is a low risk of significant precipitation during the operating period. Wet weather clauses are included to limit operations in inclement weather, when soils deform or compact, and road rutting and deformation become significant. Temporary crossings will be removed the same season they are installed, and removal will occur no later than October 15th of the season of installation.</p> <ul style="list-style-type: none"> • Temporary roads crossing ephemeral drainages will be designed to pass flow using drainage dips, waterbars or culverts when needed. Removal of temporary roads on ephemeral drainages will include re-establishing drainage passage, mulching, and pulling outside berms 	Prep Officer, Soil Scientist / Hydrologist, TSA, Operations and Maintenance, Roads Manager, culturist	Prior, During, & Post Logging and Fuels Management Operations

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	<p>to restore overland flows. See “Temporary Roads” below for more design elements regarding ephemeral crossings.</p> <p><u>Traffic Control During Wet Periods</u> Hauling on all roads would be restricted to the dry season when roads are stable. No Winter Hauling will be conducted, although some operations may continue past 10/15 to 11/30 if conditions permit as determined by the soil scientist/hydrologist and harvesting systems specialist. Hauling on all roads would be restricted to the dry season when roads are stable, or as per the 9/95 Wet Weather/Winter Hauling/Logging Guidelines if that option is implemented. (O&M Engineer - During Administration of the Sale)</p> <p>Temporary Roads (including previously-tilled temporarily used roads):</p> <ul style="list-style-type: none"> • Temporary road design and location will follow the following principles: Temporary roads will follow previously-used road beds where available and appropriately located. • Use rolling dips and an out-sloped road template. • Only roads identified in the NEPA process will be reused. If additional roads are necessary, the district hydrologist will be notified and appropriate documentation and remedial action will be incorporated. • If it is determined that additional crossings are needed on temporary roads, they must be approved by the interdisciplinary team. • Limit the amount of temporary road construction by maximizing the skidding distance. • Minimize the length and width of the roads. Avoid unstable areas where there is potential for mass soil erosion. • During implementation of the proposed action or action alternatives, if vehicles stir up fines in dry streambeds or where needed for support during project activities, additional clean 1”+ gravel will be added to the crossing surface. • Excess materials would be removed after use. • Decommission all temporary roads. Temporary roads will be decommissioned according to Renewable Resources Planning Act (16 USC 1608): appropriately draining the road, pulling berms and re-establishing the natural contour in necessary areas. Particular attention will be paid to roads within the RHCA or when crossing drainages. • Where needed, mulch will be applied to control erosion. Subsoil temporary roads where determined to be necessary after review by a soils scientist or hydrologist. • Decommissioned temporary roads in RHCAs will be mulched to control erosion., but will not be placed in the 100 year flood plain . 		

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	BMPs 1.1, 1.19, 2.7, 2.14, 2.15, 2.1, 2.2, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.12, 2.13, 2.14, 2.15, 2.16.		
Soils / Hydrology (16)	New permanent road and crossing in Unit C05 New road design BMPs and criteria for design details are incorporated in Appendix D. BMPs 2.2, 2.3, 2.5, 2.6, 2.7, 2.8, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15, 2.17, 2.19, 2.20, 7, 2.14, 2.15, 2.1, 2.2, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.12, 2.13, 2.14, 2.15, 2.16.		
Hydrology/Aquatic Biology (17)	Water source <ul style="list-style-type: none"> • Use an approved water source for obtaining water. Water drafting sites in the project area will be established on permanently flowing streams that have sufficient flow to avoid depletion of pool habitat. • Where streams are the sole water source, drafting would be allowed until stream flows reach 2 cfs. Below 2cfs, drafting would only be allowed in previously developed off-site water impoundments and according to guidelines as outlined in the Tahoe National Forest Land and Resource Management Plan (TNFLRMP). • Install screens on water intake lines to prevent entrainment of biota. • To avoid impacts to MYLF, identify all drafting sites to be used for the proposed action, and report these to a fisheries biologist to allow the implementation of the mitigation measures listed in SMR 31. • Do not overfill tanks when collecting water as this can lead to increased sedimentation to the stream channel. • Do not back water trucks beyond the established access developed to access the water source. • If use of water source creates sediment movement on access route. Apply clean crushed gravel or other means to control sediment, and maintain water quality. <p>BMPs 1.19, 2.4, 2.5, 2.24.</p>	Prep Officer, Soil Scientist, TSA, Operations and Maintenance Roads Manager, & culturist	Prior, During, & Post Logging, and Fuels Management Operations
Spill Plan Hydrology (18)	Have an approved Spill Prevention Control and Countermeasure plan. <ol style="list-style-type: none"> 1. Plan for appropriate equipment refueling and servicing sites during project planning and design. 2. Allow temporary refueling and servicing only at approved locations, which are well away from water or riparian resources. 3. Develop or use existing fuel and chemical management plans (for example, spill prevention control and countermeasures (SPCC), spill response plan, emergency response plan) when developing the management prescription for refueling and servicing sites. 4. Locate, design, construct, and maintain petroleum and chemical delivery and storage facilities consistent with local, State and Federal regulations. 5. Install contour berms and trenches around vehicle 		

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	<p>service and refueling areas, chemical storage and use areas, and waste dumps to fully contain spills.</p> <p>6. Use liners as needed to prevent seepage to groundwater.</p> <p>7. Provide training for all personnel handling fuels and chemicals in their proper use, handling, storage, and disposal.</p> <p>8. Avoid spilling fuels, lubricants, cleaners, and other chemicals during handling and transporting.</p> <p>BMP 12.21</p>		
<p>Application of Sporax ® (19)</p>	<p>Applications of Sporax® will follow all State and Federal rules and regulations, including product label requirements as they apply to pesticides and BMPs for pesticide use:</p> <ul style="list-style-type: none"> • Sporax will not be applied to within 25 feet of surface water. • Sporax will be applied to all conifer stumps within 4 hours of felling. • Sporax will not be applied during periods of sustained rain. <p>Prior to the Decision being signed, a Pesticide Use Proposal (FS-2100-2) for the application of Sporax needs to be completed and approved, and be present in the Project File and Contract. In addition, the Project File and Contract should include a spill plan tiered to the Forest Spill Plan.</p> <p>BMPs 5.7, 5.8, 5.9, 5.10, 5.11, 5.12.</p>	<p>Contract Prep Officer, Sale Administrator</p>	<p>Prior to Contract Advertisement During Logging</p>
<p>Soils / Hydrology, Fuels Management (20)</p>	<p>Ground cover requirements for all activities: To protect against accelerated erosion and hydrophobicity, to maintain long-term soil productivity, and protect sensitive plants, the following guidelines should be applied during the planning and implementation of fuels treatments and timber management.</p> <p><u>Downed Large Wood Requirements</u> Where grapple piling is proposed, maintain downed wood retention adequate to contribute to erosion control while attaining desired conditions. Retain some large downed wood while meeting fuels objectives (small areas of heavier concentrations that are not continuous on the landscape) to compensate for areas that do not meet downed wood requirements across the greater landscape.</p> <p>Provide for downed wood retention of 3 large wood pieces (10' length and 20" dbh, where unavailable 12" dbh will suffice) per acre. In areas not meeting downed wood requirements, incorporate burn prescription measures and contract requirements to maintain existing downed logs (preference to spring burn prescription). Where tree mortality occurs following underburning and pile burning activities, and where tree mortality and site condition exceeds 3 snags per acre, consider falling selected snags to achieve the downed large wood requirements.</p> <p><u>Ground Cover - Monitoring</u></p>	<p>Soil Scientist, Fish Biologist, Hydrologist & Fuels Officer & Prep Officer/TSA</p> <p>Fuels Officer, Soil Scientist, Hydrologist, and TSA, COR.</p>	<p>Logging, Post Logging, and Fuels Management Operations</p> <p>During Logging, Fuels Management Operations</p>

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	<p>The following are used as a general guide that will be practically implemented and assessed using random implementation monitoring and focused monitoring of areas of concern, through the BMPEP monitoring program. If the minimum effective soil cover requirements are not being met (i.e. ground cover requirements are not shown to be effective in controlling erosion) management practices should be reviewed and adjusted as needed to achieve soil cover objectives, and mitigation measures such as mulching will be implemented as needed to reduce soil erosion.</p> <p><u>Ground Cover Requirements Within the RHCAs</u> Mulching will occur over bare ground created by management activities within the RHCA with particular attention paid near the hydrologic feature. Upland areas of the RHCA will meet the General Ground Cover requirements within the RHCAs.</p> <ul style="list-style-type: none"> • On soils with low to moderate erosion hazard ratings (0-25% slope), maintain 60% ground cover. • On soils with very high erosion hazard ratings (greater than 25% slope), maintain 70% ground cover. • In near stream zones for perennial streams and intermittent streams or seasonally wet areas with riparian and meadow features, approximately 70% ground cover will be required. Large patches of bare ground will be mulched. • Mulch will be required on endline drag channels that exceed 4 inches depth on greater than 5% slopes in RHCAs and 10% slopes on adjacent uplands where endlining is required. • <p><u>General Ground Cover Requirements Outside of RHCAs</u></p> <ul style="list-style-type: none"> • On soils with low to moderate erosion hazard ratings (0-25% slope), maintain 45% ground cover. • On soils with high erosion hazard ratings (5-25-5 % slope), maintain 55% ground cover. • On soils with very high hazard ratings (greater than 50% slopes), maintain 70% ground cover. <p><u>Slash Treatment/Mulching</u> While following other identified Soils related SMR guidelines for soil cover and mulching of skid trails...If activity generated slash or pre-existing natural slash is present in units adjacent to the skid trail this material is to be utilized as ground cover/mulch. The Fuels Officer will be involved prior to and during this phase of implementation.</p> <p>BMP 1.9, 1.13, 1.20, 1.21, 5.4, 6.2, 6.3.</p>		

<u>Concern/SMR #</u>	<u>Task</u>	<u>Responsible Person(s)</u>	<u>Due Date</u>
Hydrology / Fuels Management (21)	<p>Burn Prescriptions</p> <p>Hand pile and burn:</p> <p>Hand piling then burning of piles within waterbody buffer zones as defined by the Basin Plan will follow direction of LWQCB (see SMR 23). No hand piling then burning of the piles would occur within 25 feet of riparian vegetation and stream channels, or within meadows. However Basin Plan rules override these distances in questionable locations.</p> <p>Excess remaining project-generated slash would be removed and hand piled outside of the aspen root footprint as determined by district specialists, and burned to reduce slash to a level that would not inhibit the aspen suckering response. The location of the piles to be burned would be advised by the district hydrologist to maintain water quality and would not be within 25 feet of riparian vegetation.</p> <p><u>Pile placement</u></p> <p>Slash piles in landings will be located such that spread and/or damage to surrounding vegetation will be minimized. The Fuels Officer will be involved prior to and during this phase of implementation.</p> <p><u>Burn Prescriptions in RHCA</u></p> <p>To prevent effects to MYLF consult the aquatics biologist about, or do not allow the use of foam during prescribed burning activities within RHCAs.</p> <ul style="list-style-type: none"> • Active ignition in waterbody buffer zones (WBBZs) as defined by Lahontan Water Quality Control Board is prohibited but broadcast burns can creep into these areas. If fire from underburning threatens to burn riparian vegetation and aquatic habitat, and/or the ground cover objectives will not be achieved, then the fire would be controlled or extinguished using minimally ground-disturbing methods and/or water application. • Design prescribed fire treatments to minimize disturbance of ground cover and riparian vegetation in RHCAs. • No active ignitions for underburning would occur within 25 feet of riparian vegetation. Down wood will be retained based on site conditions to achieve riparian conservation objectives and ground cover requirements. If logs need to be removed from channels to achieve fuel objectives the hydrologist or soil scientist will be consulted. • The fire prescription should target the lowest possible soil temperature increase for the shortest duration of time. 	<p>Prep Officer, Soil Scientist, Hydrologist, Fuels Officer, & TSA</p> <p>Fuels Officer, TSA, COR .</p>	<p>During, & Post Logging</p> <p>During Logging, Fuels Management Operations</p>

Concern/SMR #	Task	Responsible Person(s)	Due Date
	<ul style="list-style-type: none"> • The fire prescription should target the highest duff layer moisture levels consistent with the fuel reduction and soil cover objectives. • Avoid burning road drainage outlets, such as waterbars and rolling dips, and out sloped roads within RHCAs. If such areas do get burned, consider mitigations measures such as mulching to reduce soil erosion. • No active ignition or pile burning within 50 feet of fens and springs. This distance may need to be increased depending on ground conditions to prevent burning through wetland features. <p>BMPs 6.2, 6.3.</p>		
Soils / Hydrology (22)	<p>Erosion Prevention Measures in activity areas such as landings: Erosion control work is inspected prior to the end of the normal operating season to determine whether the work is adequate. Additional measures will be applied when needed to meet water quality standards.</p> <p>Landings along County Road 350 used for Units C04 and C05 and compacted landings adjacent to roads are vulnerable to runoff contributing to road drainage and road erosion issues. They will be covered in chips not greater than 4 inches deep after use. The landings will be assessed for compaction prior to chipping. Chips may be sub-soiled into landings to promote vegetative growth as determined to be necessary, after assessing compaction and need for sub-soiling. If landings have high rock content no chipping or sub-soiling would be required.</p> <p>Timing of Erosion Control Measures</p> <p><u>Vegetation Management:</u> All necessary erosion control measures for logging operations will be implemented as soon as possible after logging operations cease in the area and prior to runoff producing rainfall. All erosion prevention measures will be implemented by October 15th. For harvest activities continuing beyond October 15th, erosion control measures on active sites will be implemented at the first opportunity.</p> <p><u>Roads:</u> Erosion control measures are implemented by the end of the normal operating season, (usually October 15 for this area) and kept current when road construction occurs outside that period. Stabilization of fills and completion of winterization is required by October 15. This includes the removal of temporary culverts, culvert plugs, diversion dams, or elevated stream crossing causeways. It also includes installation and/or removal of crossdrains, energy dissipators, sediment basins, berms, debris racks, mulching, or other items needed to control erosion. Other preventive measures include the removal of debris, obstructions, and spoil materials from channels and floodplains.</p> <p>BMP 1.3, 1.14, 1.16, 1.17, 1.19, 1.21, 2.13, 2.8, 2.9.</p>	Prep Officer, Soil Scientist, Hydrologist, & TSA, O&M Roads Manager	During, & Post Logging

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Soils / Hydrology (23)	<p>Lahontan Region CWQCB The erosion control plan will be included in the waiver application.</p> <p>Because this project is within the Lahontan Regional Water Quality Control Board jurisdiction, in addition to the above measures additional attention will be applied to ensure the following:</p> <p>EA Appendix C: RHCA treatment summary includes Table 6 to display the relationship of the RHCA and the WBBZ.</p> <p>The following provisions would apply to areas meeting all Category Provisions</p> <p>100-Year Floodplains (defined below).</p> <p>No piling or burning of piles will occur in 100-year floodplains. No new landings will be located in 100-year floodplains. No existing landings are located in 100-year floodplains No equipment will enter 100-year flood plains except at existing roads and crossings.</p> <p>Chips or masticated material will not be placed within the 100 year flood plain.</p> <p>Prohibited discharges to 100-year floodplains do not occur if activities meet a. or b., and c. below: a. Chips or masticated material is incorporated into the soil, or b. Chips or masticated material do not exceed an average of two inches in depth, with a maximum of four inches, and c. Eligibility criteria and conditions of applicable Waiver Category are met.</p> <p>Mechanical equipment Equipment will only operate on dry soils as defined by the LWQCB. See attachment A of this document.</p> <p>Activities Conducted Under Category 6 Activities conducted under Category 6 will follow the eligibility requirements and conditions as described in Board Order No. R6T-2009-0029 Condition Waiver of Waste Discharge Requirements for Waste Discharges Resulting from Timber Harvest and Vegetation Management in the Lahontan Region (e.g. 2009 Timber Waiver). The required monitoring and reporting conditions would also be followed as described in the Order.</p> <p>Activities Conducted Under Category 4</p>		

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	<p>Activities conducted under Category 4 will follow the eligibility requirements and conditions as described in 2009 Timber Waiver. The required monitoring and reporting conditions would also be followed as described in the Order.</p> <p>Hand Piles Operating Under Category 2 Piles will not be located within 100-year floodplain of any watercourse. No piles will be located within 25 feet of Waterbody Buffer Zones. No more than 10% of the area within the Waterbody Buffer Zone shall be covered in piles. This condition means less than 10% of the Waterbody Buffer Zone area is subject to vegetation management activities. Note: activities not following these requirements will apply for an applicable category.</p> <p>New Road See Appendix D for information about proposed Forest System Road 350-18. The proposed new road crossings will follow requirements for the Section 404 permits (Clean Water Act), and U.S. Army Corps of Engineers and Section 401 Water Quality Certifications as required for discharges of dredged or fill materials to waters of the United States and the Section 401 Because this road will be implemented outside of the 100 year flood plain an exemption will be sought. Water Quality Certifications will be complied with as needed or the section 404 permit will be obtained under a nationwide permit that has a “blanket” Water Quality Certification. Other required National Pollutant Discharge Elimination System (NPDES) permit requirements will be followed and attained where needed. A specific Erosion control Plan will be added to the application for this new road construction.</p> <p>Temporary Roads For temporary roads the proposed action will meet the criteria of Appendix N for the Lahontan Timber Waiver Waste Discharge Prohibition Exemption Information, Page 6 of 6 (Attachment N) Board Order No. R6T-2009-0029 Adopted May 14, 2009. Activities for temporary roads will meet all the following conditions: a. Temporary stream crossings are constructed with clean cobbles or logs. If sand or soil is used as running surface, BMPs must be in place (e.g. filter cloth, brow logs) to prevent discharge of earthen materials to surface waters. b. Stream crossings are completely removed at the end of operations, or prior to the winter period (as defined in Attachment A), whichever is sooner. c. Eligibility criteria and conditions of applicable Waiver Category are met.</p> <p>100-Year Floodplains based on the definition in the 2009 LWQB timber wavier Attachment A are areas determined based on delineations completed or approved by the U.S. Army Corps of Engineers, the Federal Emergency</p>		

<u>Concern/SMR #</u>	<u>Task</u>	<u>Responsible Person(s)</u>	<u>Due Date</u>
	<p>Management Agency, or an individual qualified to make floodplain delineations. If these agencies have not completed formal delineations the Water Board staff may agree to the use of best professional judgment; field verification by staff may be needed. These areas include land adjacent to waterbodies that extend to the outer perimeter of lands which experience flooding or are inundated with water during 100-year flood events. At a minimum, dischargers shall designate the 100-year floodplain area to encompass the bed and bank of any ephemeral drainage course. If other indicators are present such as wet vegetation on terraces, or other high water indicators, such as stranded debris, these should also be taken into consideration. For cases of unconfined channels, other indicators may need to be considered.</p>		
<p>Sensitive Plants / Weeds / Fuels Management / Hydrology (24)</p>	<p>Sensitive Plants</p> <p>1. Fen areas are located in eastern edge of Unit C04, and three fens are present in the northeastern end of Unit C05 just south of the private property. Implement a 25' no treatment zone along the periphery of all fens in these areas. The silviculturalist will work with the botanist and hydrologist or soil scientist to extend this no treatment zone beyond the fen area to areas needed to maximize protection of the fens. For example, if a no-entry zone with no tree removal 50' from the fen is determined by the botanist to be necessary to retain the ecological/hydrologic integrity of the fen, the silviculturalist will guide the marking to assure the noted area is not affected by the surrounding silvicultural treatment. This no treatment zone will be complemented by the standard 25' (or greater) TKO (Tractor Keep Out) that is implemented around every water feature to prevent mechanical equipment such as tractors, skidders and feller-bunchers from entering sensitive riparian areas. More information about this TKO is described in SMR 9 and 31.</p> <ul style="list-style-type: none"> • SMR 25 below summarizes the standards and guidelines that guide grazing on National Forest land. If additional measures are needed to assure that fens are appropriately protected, hand falling on the 25' no treatment boundary (or extended area) may include the creation of a physical barrier to divert cattle from trailing or foraging in fens using natural materials. For example, fall lodgepole pines in a parallel or jackstraw configuration to discourage cattle movement into the fen area. • Do not treat the area between the two largest fens and the tributary to Independence Creek in the northeastern portion of the unit. <p>2. The fen area on the southern edge of Unit B03 would allow equipment as needed for watershed restoration action that would remove portions of the railroad grade that bisects the fen area. There were no sensitive plant species</p>	<p>Botanist, Silviculturalist, Prep Officer, Hydrologist, Fuels Officer</p>	<p>Unit Layout, During & Post Logging, During Fuels Management Operations, During Watershed restoration Actions</p>

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	<p>found in this fen south of Unit B03.</p> <p>3. A fire plan will be approved by the Forest Service to address fire prevention and suppression while the equipment is in use for all tree cutting or removal activities.</p> <p>4. Implement all applicable Best Management Practices and flag and avoid springs and possible fens.</p> <p>All occurrences of Sensitive Plants, including all found at a later time, should be flagged and no ground-disturbing activities should be implemented within the flagged areas. When Sensitive Plant occurrences are found within fens, the whole fen should be protected and so trees whose roots contribute to the integrity of the fen border shall be retained and the 25 foot TKO would also apply.</p> <ul style="list-style-type: none"> ▪ Monitoring should take place during project activities and directly after project activities culminate in the vicinity of sensitive plant occurrences to ensure protective measures are sufficient as described in the HFQLG Monitoring Plan. <p>If impacts to a sensitive plant occurrence are detected, monitoring should take place according to the HFQLG monitoring plan to determine whether or not the occurrence is still extant (has not been extirpated) and to determine whether impacts will have lasting adverse effects.</p>		
<p>Fen, meadow and aspen grazing 2004 SNFPA ROD Standards and Guidelines (25)</p>	<p>2004 SNFPA ROD Standards & Guidelines Associated with Riparian Conservation Objective #5 (pg. 65) :</p> <p>118. Prohibit or mitigate ground-disturbing activities that adversely affect hydrologic processes that maintain water flow, water quality, or water temperature critical to sustaining bog and fen ecosystems and plant species that depend on these ecosystems. During project analysis, survey, map, and develop measures to protect bogs and fens from such activities as trampling by livestock, pack stock, humans, and wheeled vehicles. Criteria for defining bogs and fens include, but are not limited to, presence of: (1) sphagnum moss (<i>Spagnum</i> spp.), (2) mosses belonging to the genus <i>Meesia</i>, and (3) sundew (<i>Drosera</i> spp.) Complete initial plant inventories of bogs and fens within active grazing allotments prior to re-issuing permits.</p> <p>120. Under season-long grazing: For meadows in early seral status: limit livestock utilization of grass and grass-like plants to 30 percent (or minimum 6-inch stubble height) For meadows in late seral status: limit livestock utilization of grass and grass-like plants to a maximum of 40 percent (or minimum 4-inch stubble height)</p> <p>121. Limit browsing to no more than 20 percent of the annual leader growth of mature riparian shrubs and no more than 20 percent of individual seedlings. Remove</p>		

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	livestock from any area of an allotment when browsing indicates a change in livestock preference from grazing herbaceous vegetation to browsing woody riparian vegetation.		
Non- Native Invasive Plants (26)	<p>Non- Native Invasive Plants of Concern.</p> <p><i>This measure will be consistent with the current contract clause provision regarding equipment cleaning.</i></p> <p>3. Place the NW (noxious weed) symbol on the Timber Sale Administration Map <u>near the entrance to the Bickford Ranch and within the Phoenix unit at north of Sagehen Summit in section 32.</u></p> <p>Include known locations of invasive species of concern on Timber Sale Administration maps so that units with noxious weed sites in close proximity can be avoided, to prevent contamination of equipment and adjacent areas.</p> <p>Any materials for erosion control including gravel or straw bales should be weed free certified (Although it is not proposed to bring in any materials at this time).</p> <p>1. Prevention/Cleaning: Require all off-road equipment and vehicles (Forest Service and contracted) used for project implementation to be weed-free. The location of equipment’s most recent operation shall be disclosed and off-road equipment should be cleaned prior to moving onto Sale Area when equipment is known to be from a potentially infested area. Off-road equipment shall be cleaned prior to moving from a unit shown to be infested with noxious weeds on Sale area Map. Cleaning is not required for vehicles that will stay on the roadway.</p> <p>2. Prevention/Road Construction, Reconstruction, and Maintenance: All earth-moving equipment, gravel, fill, or other materials need to be weed free. Use onsite sand, gravel, rock, or organic matter where possible.</p> <p>3. Prevention/Revegetation: Use weed-free equipment, mulches, and seed sources. Avoid seeding in areas where revegetation will occur naturally, unless noxious weeds are a concern. Save topsoil from disturbance and put it back to use in onsite revegetation, unless contaminated with noxious weeds.</p> <p>4. Prevention/Staging Areas: Do not stage equipment, materials, or crews in noxious weed infested areas where there is a risk of spread to areas of low infestation.</p> <p>5. Small infestations identified during project implementation will be evaluated and hand treated or “flagged and avoided” according to the species present and project constraints. If larger infestations are identified after implementation, they should be isolated and avoided with equipment (and equipment washed as in # 1 above).</p> <p>6. Monitoring: Monitor for noxious weed invasion after</p>	Contract Prep Officer, TSA, Botanist, District Fuels Officer	Contract Prep, Post Harvest and, During Pile Burning and Prescribed Fire Treatment Activities, and Post Burning

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	timber sale implementation and after piles are burned according the HFQLG monitoring plan.		
Historical & Cultural Resources (27)	Archeological and historic sites: Site Specific Special Protection Measures. Any archaeological sites not evaluated prior to logging will be considered as being eligible for the National Register and will be protected.		
Historical & Cultural Resources (28)	The district archeologist will be consulted during layout of multiple units that have been identified during project reconnaissance. The areas of concern will receive hand treatment during logging or other modified treatments as approved by the archeologist. The archeologist will be consulted regarding the location of fuel piles to be burned in identified units. The archeologist will be consulted regarding the determination of which landings and infrastructure to use when accessing <u>Units A02 and A06.</u>	Archeologist, Prep Officer, and TSA	During Layout, Contract Prep and Logging
Historical & Cultural Resources (29)	The district archeologist will flag areas in multiple unit sincluding B05 and C02 that have been identified during project reconnaissance. These areas will be avoided during logging. The northern edge of the Unit B05 fragment (adjacent to plantation p700005 in the southwest portion of Unit B05) is bounded by a TKO based on either wet meadow or historical site, whichever is greater.	Archeologist, Prep Officer, TSA	During Layout, Contract Prep & Logging
Historical and Cultural Resources (30)	Protect aspens with historical carvings: The aspens needing protection will be identified prior to the start of aspen treatment operations by the District Heritage Resource staff, and these trees will be protected .	District Heritage Resource and Prep Officer, and TSA	During sale Layout & Logging
Aquatic Wildlife (31)	Sensitive aquatics species The TKO, no treatment zones, and marking guidelines for aspen restoration in <u>Units C03a, C04a and C05a</u> require special attention during layout due to complex landscape features. The silviculturalist will layout these treatments in consultation with the aquatics biologist. As stated in Alternative 1 Action #5, to restore and enhance aquatic or riparian habitat in units along perennial streams, an Aquatics Biologist would participate in the timber removal marking to identify conifer trees to remain on site. These conifers could be handfelled after completion of the silvicultural treatment, to provide coarse woody debris along these perennial streams. The coarse woody debris marking and potential handfelling actions would not exceed a total of 5 acres in size. Mountain yellow-legged frog: 1. To reduce the potential of impacts to mountain yellow-legged frog (MYLF), where sightings establish the presence of MYLF, implement the following management requirements: <ul style="list-style-type: none"> • Within RHCAs noted by the aquatics biologist as 	Aquatics Biologist, TSA, Fuels Officer	During Contract Prep, Logging and Fuels Treatment

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	<p>MYLF habitat or breeding areas, require no ground disturbing activities during the limited operating period (LOP) of November 30 to May 30. This LOP is needed to avoid possible interference with MYLF during a time when they may move away from stream courses.</p> <p>2. To avoid impacts to MYLF, identify all drafting sites to be used, in conjunction with the proposed action, and report these to a fisheries biologist, to allow the implementation of the following mitigation measures:</p> <ul style="list-style-type: none"> • Prior to use each year, water drafting sites where frog habitat is present, a survey will be conducted by a fisheries biologist to determine if frogs are present. <p>If MYLF is found to be present, the biologist will determine whether water drafting mitigations measures are needed. Use of any water source on the Sale Area will be agreed to in writing. Drafting sites shall be located to minimize sediment and maintain riparian resources, channel condition, and MYLF habitat. Use suction strainers with screens less than 2 mm in size. Place draft suction strainer in a bucket to avoid substrate and amphibian disturbance. Draft from deepest water source, near bottom.</p> <p>3. To prevent effects to MYLF consult the aquatics biologist about, or do not allow the use of foam during prescribed burning activities within RHCAs.</p> <p><i>Recommendation:</i> If wetting rain (>.25 inch) occurs during, or within two weeks prior to treatment, a biologist should survey both treatment units and temporary roads within .25 mile of RHCAs. If species is present, determine appropriate mitigation measures to reduce the risk of direct effects to individuals.</p>		
Wildlife (32)	<p>Northern goshawk Limited Operating Periods</p> <p><u>Unit C01a</u> is a DFPZ mechanical thin treatment within the Liberty NGO PAC</p> <p>When noise generating activities occur in the following units, implement a limited operating period (LOP) to protect goshawk. This LOP will be in effect from February 15 through and including September 15 in <u>Unit C01a</u>. This LOP may be modified by the District Wildlife Biologist if surveys determine that nesting will not be affected within ¼ mile of proposed activities.</p> <p>When using prescribed fire to reduce ladder fuels inside and adjacent to goshawk protected activity centers (PACs), implement a limited operating season to protect nesting goshawk. This limited operating period will be in effect from February 15 through and including September 15 in <u>Unit C01a</u>. This LOP may be modified by the District Wildlife Biologist if surveys determine that nesting will</p>	Wildlife Biologist, TSA	During Contract Prep, Logging and Fuels Treatment

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	not be affected within ¼ mile of proposed activities.		
Wildlife (33)	Detection of a wolverine or Sierra Nevada red fox will be validated by a forest carnivore specialist. When verified sightings occur, conduct an analysis to determine if activities within 5 miles of the detection have a potential to affect the species. If necessary, apply a limited operating period from January 1 to June 30 to avoid adverse impacts to potential breeding. Evaluate activities for a 2-year period for detections not associated with a den site. (Sierra Nevada Forest Plan Amendment SFEIS, S&G #32)	Wildlife Biologist, TSA	During Contract Prep, Logging and Burning
Wildlife (34)	Great Gray Owl Limited Operating Period (LOP) When noise generating activities occur in the following units, implement a limited operating season to protect potential nesting great grey owls. This limited operating period will be in effect from March 1 st through and including August 31 st in Units p7400110 and C03 . There are no other great gray owl detections within the analysis area. This LOP may be modified by the District Wildlife Biologist if surveys determine nesting and successful reproduction will not be adversely affected for that season of operation.	Wildlife Biologist, TSA	During Contract Prep, Logging and Fuels Treatment
Wildlife (35)	Canopy cover and snag requirements All snags ≤ 15 inches Diameter Breast Height will be retained within all treatment units, unless they pose a risk to operator safety as outlined in OSHA regulations. Sensitive wildlife habitat areas in Units B05, B05a, C01, C04, C05, and D01c (CWHR RFR4D, RFR4M, WFR4D and WFR4M per the wildlife biologist's updated classifications) will receive a modified vegetation thinning treatment that leaves no less than 40% canopy cover. DFPZ thinning in Unit C01a will maintain tighter tree spacing, approximately 50% canopy cover minimum, increased clumps, snags, and down logs. To benefit marten habitat and to minimize detrimental impacts to brush species, maintain a target of over 10 tons/acre of course woody debris in decay classes 1 and 2 outside of DFPZs for all treatment types. This would equate to approximately 8 to 10 medium to large logs/acre. Underburning, mastication and grapple piling post thinning should consider this recommendation when developing prescriptions.	Silviculturalist, Wildlife Biologist, TSA	During Sale Layout, Contract Prep, Logging, Vegetation treatment, and Fuels Treatment
Fuels / Air Quality (36)	The prescribed fire planner will coordinate with the Air Quality Coordinator to design the waste fire plan. Burning permits would be acquired from the Northern Sierra Air Quality Management District. The Air Quality District would determine days when burning is allowed. The California Air Resources Board (CARB) provides daily information on "burn" or "no burn" conditions. Burn plans will be designed and all fuel reduction burning will be implemented in a way to minimize particulate	District Fuels Officer	During Pile Burning and Prescribed Fire Treatment Activities.

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	emissions. Prescribed fire implementation will coordinate daily and seasonally with other burning permittees both inside and outside the forest boundary to help meet air quality standards.		
Soils / Hydrology (37)	<p>Watershed improvements Y and Z result from legacy impacts.</p> <ul style="list-style-type: none"> ▪ Watershed improvements were assessed, identified and incorporated into the proposed action and action alternatives. ▪ All required state and federal permitting processes, such as CEQA, water quality and 404 permits would be complied with prior to implementation of stream and wetland restoration. The CEQA scoping, document development, noticing, and public review will occur prior to obtaining the necessary prohibition exemptions, as an addendum to the Waiver application to address the required basin plan findings and criteria. <p>BMP 7.1.</p>	TSA & Soil Scientist	During & Post hazard tree removal and Road maintenance work.

ATTACHMENT A Operability of Soils Protocol

Protocol for determining operability of soils within the compaction zone*.

	Coarse Soils	Light Soils	Med. Soils (<35% clay)	Heavy Soils (>35% clay)
Soil Moisture % Increases Downward	Loamy sands, fine sand loam, very fine sands, coarse sands	Fine sandy loams, sandy loams, very fine sandy loam	Sandy clay loam, loam, silt loam, sandy clay loam, clay loam	Clay loam, sandy clay, silty clay loam, clay
Dry soils	Dry, loose, single grained flows thru fingers	Dry, loose, flows thru fingers	Powdery, dry, sometimes slightly crusted but breaks down into powdery conditions	Hard, baked, cracked sometimes has loose crumbs on surface
Moist soil	Still appears dry, will not form a ball with pressure	Still appears to be dry; will not form a ball	Somewhat crumbly, but will hold together from pressure	Somewhat pliable; will form ball under pressure. At plastic limit.
Moist soil	Still appears dry, will not form a ball with pressure	Tends to ball under pressure but seldom will hold together	Forms a ball and is very pliable, sticks readily if high in clay.	Easily ribbons out between fingers, has a slick feeling. At plastic limit.
Very moist soil	Tends to stick together slightly, sometimes forms a very weak ball	Forms a weak ball breaks easily, will not stick. Plastic limit or nonplastic.	Forms a ball and is very pliable, sticks readily if high in clay. Exceeds plastic limit.	Easily ribbons out between fingers, has a slick feeling. Exceeds plastic limit.
Wet soils	Upon squeezing, free water may appear. Wet outline is left on hand. Nonplastic.	Upon squeezing free water may appear. Wet outline left on hand.	Can squeeze out free water. Wet outline left on hand.	Puddles and free water forms on surface. Wet outline left on hand.

Recommended not operable by USFS Regional Soil Scientist

Proposed additional restriction based on Bob Powers (USFS PSW Soil Scientist) comment