

CHAPTER 61: VEGETATION AND FOREST HEALTH

61.1. TREE REMOVAL

61.1.1. Purpose

The purpose of this section is to regulate the management of forest resources to achieve and maintain the environmental threshold standards for species and structural diversity, to promote the long-term health of natural resources, to restore and maintain suitable habitats for native wildlife species, and to reduce accumulations of hazardous fuels in order to decrease the likelihood of catastrophic wildfire events.

61.1.2. Applicability

TRPA requires the protection and maintenance of all native vegetation types. TRPA may require the preparation and implementation of a remedial vegetation management plan for any parcel where the need for remedial vegetation management has been identified for purposes of environmental threshold maintenance or attainment. The use, protection, and maintenance of vegetation are also addressed in the following chapters of the Code of Ordinances:

- A. 2: *Applicability of the Code of Ordinances;*
- B. 30: *Land Coverage;*
- C. 33: *Grading and Construction;*
- D. 36: *Design Standards;*
- E. 53: *Individual Parcel Evaluation System;*
- F. 60: *Water Quality;*
- G. 61: *Vegetation and Forest Health;*
- H. 62: *Wildlife Resources;*
- I. 63: *Fish Resources;*
- J. 64: *Livestock Grazing;*
- K. 80: *Review of Projects in the Shorezone and Lakezone;*
- L. 84: *Development Standards Lakeward of High Water;* and
- M. 90: *Definitions.*

61.1.3. Delegation of Project Review and Permit Determination

Qualified agencies, or third party designees, may be delegated authority for permit determinations set forth in this chapter. Stream environment zone areas (SEZ's) may be excluded from the delegation. TRPA may, on a case-by-case basis, designate the review of SEZ's if the agency or third party has demonstrated expertise in hydrology, ecology, botany, restoration, soil science, or similar scientific disciplines and are qualified to evaluate and prevent negative impacts to SEZ's and water quality. If TRPA delegates these review and permitting functions, these agencies will also be responsible for ensuring compliance with all other provisions of the Compact, Regional Plan, and Code of Ordinances.

61.1.4. Old Growth Enhancement and Protection

The standards in this subsection shall govern forest management activities and projects.

A. Standards for Conservation and Recreation Lands or SEZs

Within lands classified by TRPA as conservation or recreation land use or SEZs, any live, dead, or dying tree larger than 30 inches diameter at breast height (dbh) in westside forest types shall not be cut, and any live, dead or dying tree larger than 24 inches diameter at breast height in eastside forest types shall not be cut, except as provided below.

1. Unreasonably Contribute to Fire Hazard

Trees and snags larger than 30 inches dbh in the westside forest types and larger than 24 inches dbh in eastside forest types may be cut in urban interface areas if TRPA determines that they would unreasonably contribute to fuel conditions that would pose a fire threat or hinder defense from fire in an urbanized area. Within the urban interface areas, fire management strategies favoring the retention of healthy trees larger than 30 inches dbh in the westside forest types and larger than 24 inches dbh in eastside forest types trees shall be fully considered. Urban interface areas are defined as all undeveloped lands within a 1,250 foot zone immediately adjacent to TRPA residential, commercial, or public service plan area boundaries.

2. Unacceptable Risk to Structures or Areas of High Use

A tree larger than 30 inches dbh in westside forest types and larger than 24 inches dbh in eastside forest types may be felled, treated, or removed if TRPA and the land manager determine the tree pose an unacceptable risk to occupied or substantial structures or areas of high human use. Examples of areas of high human use are campgrounds, parking lots, ski trails, and developed beaches. Where a land manager determines that a tree constitutes a physical emergency (e.g., imminent threat of falling on occupied or substantial structures, or people), the land manager may remove the tree but must provide photographic documentation and any applicable paperwork and fees to TRPA within ten working days of removal of the hazardous tree.

3. Diseased or Infested Trees

Where immediate treatment and removal is warranted to help control an outbreak of pests or disease, severely insect-infested or diseased trees larger than 30 inches dbh in westside forest types and larger than 24 inches dbh in eastside forest types may be removed. Trees to be felled, treated, or removed require TRPA review on a tree by tree basis, within 30 working days of written notification by the land manager.

4. Adverse Impacts to Stream or River

Trees larger than 30 inches dbh in the westside forest types and larger than 24 inches dbh in eastside forest types that are likely to cause significant adverse impacts to a stream or river may be felled, treated, or removed. This determination shall be made by a qualified interdisciplinary team and approved by TRPA. The marking of these trees shall be done by TRPA.

5. Ecosystem Management Goals

In limited cases, trees larger than 30 inches dbh in the westside forest types and larger than 24 inches dbh in eastside forest types may be cut if a management prescription clearly demonstrates that the identified

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trees need to be cut for ecosystem management goals consistent with TRPA goals and policies, such as aspen stand regeneration or achieving desired species composition. The project and prescription must be developed and reviewed by a qualified interdisciplinary team, be part of a public review process, and only the trees necessary to achieve ecosystem objectives at a specific site shall be removed. Each tree larger than 30 inches dbh in the westside forest types and larger than 24 inches dbh in eastside forest types shall be approved by TRPA. The marking of these trees shall be done by TRPA.

- 6. Ski Areas Master Plans**
In ski areas with existing TRPA-approved master plans, trees larger than 30 inches dbh in the westside forest types and larger than 24 inches dbh in eastside forest types may be removed for facilities that are consistent with that master plan. For activities that are consistent with a TRPA – approved master plan, trees larger than 30 inches dbh in the westside forest types and larger than 24 inches dbh in eastside forest types may be removed when it is demonstrated that the removal is necessary for the activity.
 - 7. EIP Projects**
Trees larger than 30 inches dbh in the westside forest types and larger than 24 inches dbh in eastside forest types may be removed when it is demonstrated that the removal is necessary for the activity.
 - 8. Extreme Fuel Loading**
In case of extreme fuel loading some snags larger than 30 inches dbh in the westside forest types and larger than 24 inches dbh in eastside forest types may be cut if the removal is consistent with subsection 62.3.4: Snags and Coarse Woody Debris.
 - 9. Large Public Utilities Projects**
Trees larger than 30 inches dbh in westside forest types and larger than 24 inches dbh in eastside forest types may be removed for large public utilities projects if TRPA finds there is no other reasonable alternative.
 - 10. Emergency Fire Suppression**
Trees may be removed when an emergency fire suppression need exists as determined by the local, state, or federal fire suppression agency involved in a fire suppression activity.
 - 11. Private Landowners**
Private landowners may cut trees larger than 30 inches dbh in the westside forest types and larger than 24 inches dbh in eastside forest types provided the landowner follows one of the planning processes set forth in subparagraph 61.1.4.C.
- B. Standards for Non-SEZ Urban Lands**
Within non-SEZ urban areas, individual trees larger than 30 inches dbh that are healthy and structurally sound shall be retained as desirable specimen trees having aesthetic and wildlife value, unless no reasonable alternative exists to retain the tree, including reduction of parking areas or modification of the original design.

C. Alternative Private Landowner Process

As an alternative to complying with the standards in subparagraph 61.1.4.A, a private landowner may follow one of the following planning processes to achieve or maintain the late seral/old growth threshold, goals, and policies.

1. Alternative Forest Management Plan

A private landowner, in the development of a forest management plan, shall follow the planning process described in Chapter 14: *Specific and Master Plans*, except as provided below.

- a. In relation to subparagraph 14.8.1.A only the private landowner may initiate the private forest management planning process.
- b. In relation to subparagraph 14.8.1.B the project team shall consist of a designee of the Executive Director, appropriate regulatory and land management agencies, the proponent's qualified forester, and the team shall consult with the appropriate public land management agencies if the private land is adjacent to public land.
- c. In relation to Section 14.9, the content of a forest master plan shall be described in the TRPA Forest Master Plan Guidelines. The content shall include enough information to make the required findings of Section 14.10; shall provide guidelines for salvage harvest, insect control, and fire salvage. The document shall be organized by described and mapped planning units. As an example, a non-industrial timber management plan that contains enough information to make the required findings of Section 14.10 can be submitted provided it is developed with approval of the steering committee.
- d. The harvest practices shall comply with local and state regulations.
- e. A proposed schedule (and seasonality) of harvest projects and improvement projects shall be included within the plan.
- f. Individual harvest projects proposed under the master plan within the planned schedule and proposed method shall receive a streamlined review.

2. Limited Forest Plan

Private landowners may prepare a limited forest plan when there would be limited proposed impact to large trees.

- a. A limited forest plan may be prepared if ten percent or less of the trees larger than 30 inches dbh in the westside forest types and larger than 24 inches dbh in eastside forest types within the project site are proposed to be cut within the life of the plan.
- b. The limited forest plan shall include:
 - (i) The relative state permit application, if available;
 - (ii) Description of harvest activities;
 - (iii) Description of management activities;
 - (iv) Explanation of how thresholds, goals and policies shall be attained under the forest plan; and
 - (v) The expiration date of the plan. A minimum lifespan of ten years and a maximum lifespan of 50 years shall be accepted.

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3. TRPA shall review proposed cutting of trees larger than 30 inches dbh in the westside forest types and larger than 24 inches dbh in eastside or larger forest types on a tree-by-tree basis consistent with the forest plan.

61.1.5. General Tree Removal Standards

The cutting, moving, removing, killing, or materially damaging of live trees, and the attachment of appurtenances to trees, shall comply with this subsection. The removal of trees 14 inches dbh or less shall be exempt from TRPA approval under subparagraph 2.3.2.M and requirements of this chapter, except as provided herein. Removal of trees greater than 14 inches dbh shall require approval by TRPA except as provided in subparagraphs 61.1.7.B and 61.1.7.J. Removal of trees greater than six inches dbh on lakefront properties where the trees to be removed provide vegetative screening of existing structures as viewed from Lake Tahoe requires TRPA approval, except as provided in subsections 61.1.7.B and J. Permits shall be granted or denied in conformity with the provisions of this chapter.

A. Additional Code Standards

Such tree-related projects and activities also shall conform to the provisions of the Code as provided below.

1. If vegetative screening is required by an existing permit for any property, the vegetative screening shall not be removed without prior approval from TRPA except for defensible space purposes pursuant to subparagraph 61.3.6.D.
2. If tree and/or vegetation removal to occur on any property where existing permit conditions require retention of vegetation, including tree and/or vegetation removal for defensible space purposes pursuant to subparagraph 61.3.6.D, alternative scenic mitigation shall be proposed to TRPA within 30 days of vegetation removal and shall be subject to review and approval by TRPA notwithstanding the permit exemption in subparagraph 2.3.2.M.

B. Findings

Before tree-related projects and activities are approved by TRPA, TRPA shall find, based on a report from a qualified forester, that the project or activity is consistent with this chapter and the Code. TRPA may delegate permit issuance to a federal, state, or other qualified agency through a memorandum of understanding.

C. Harvest or Tree Removal Plan

In cases of substantial tree removal, as set forth in subparagraph 61.1.8, the applicant shall submit a harvest plan or tree removal plan prepared by a qualified forester. The plan shall set forth prescriptions for tree removal, water quality protection, vegetation protection, residual stocking levels, reforestation, slash disposal, fire protection, and other appropriate considerations. The plan, as approved by TRPA, shall become a part of the project and prescriptions contained in the plan shall be conditions of approval.

61.1.6. Minimum Standards for Tree Removal

The minimum standards for tree removal shall be as provided below.

A. Management Objectives

Management techniques shall be employed that are consistent with the following objectives, where applicable:

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1. Restoration and expansion of stream environment zones and riparian vegetation;
2. Improvement of the structural diversity of all forests, including the protection and establishment of younger-aged trees;
3. Enhancement of native wildlife species and/or native wildlife habitat diversity;
4. Enhancement and protection of tree species of limited occurrence, such as aspen, black cottonwood, ponderosa pine, Douglas-fir, incense-cedar, sugar pine, western white pine, mountain hemlock, whitebark pine, and western juniper;
5. Protection of sensitive lands;
6. Minimization of construction of new roads;
7. Revegetation of existing temporary roads;
8. Avoidance of disturbance of stream environment zones, unless such project is to remove trees within SEZ in accordance with subparagraph 61.1.6.C;
9. Utilization of existing openings or disturbed areas as landings;
10. Provisions for revegetation;
11. The promotion of late seral or old growth characteristics;
12. Early successional stage vegetation management; and
13. Fuels management for fire hazard reduction.

B. Cutting Practices

The following cutting practice standards apply:

1. Sufficient trees shall be reserved and left uncut and undamaged to meet the minimum acceptable stocking standards of the appropriate state or federal forestry agency, except in cases of early successional stage management;
2. Group selections shall be limited to use for achieving management objectives as approved by TRPA. Group selections shall be limited in size to less than five acres (See subparagraph 61.1.6);
3. All live trees to be cut shall be marked on bole and stump with paint by, or under the supervision of, a qualified forester prior to TRPA approval. Trees to be removed or protected may be designated by other means in situations involving clear cuts or thinning of exceptionally dense thickets, or other situations that warrant an alternate method of designation. The alternate method shall be stated in the plans and must be approved by TRPA;
4. Damage to unmarked trees and residual vegetation shall be avoided;
5. All trees shall be felled in line with the skidding direction wherever possible;
6. All trees shall be limbed on all sides where feasible and topped prior to skidding except where whole tree skidding is less disruptive to the forest resources;

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7. Stumps shall be kept to a height of six inches or less on the side adjacent to the highest ground, except where safety or imbedded metal make this impractical;
8. If stump removal will result in greater than three cubic yards of soil disturbance, a grading permit shall be obtained from TRPA prior to removal of stumps;
9. Green stumps shall be treated to prevent the spread of root disease as specified by a qualified forester; and
10. Insect-infested wood and wood susceptible to insect infestation shall be treated or disposed of as specified by a qualified forester.

C. Tree Cutting Within Stream Environment Zones

Tree cutting within stream environment zones may be permitted to allow for early successional stage vegetation management, sanitation salvage cuts, fuels management for fire hazard reduction, restoration or enhancement of ecosystem health and diversity, and fish and wildlife habitat improvement projects, in accordance with the standards provided below.

1. Vehicle Restrictions

All vehicles shall be restricted to areas outside of the stream environment zones or to existing roads within stream environment zones. The following exceptions shall apply:

- a. TRPA may permit the use of vehicles in over-snow tree removal operations. TRPA shall conduct a pre-operation inspection to ensure that conditions are suitable to prevent significant soil disturbance and/or significant vegetation damage; and
- b. TRPA shall review site-specific proposals for and may permit the use of “innovative technology” vehicles and/or “innovative techniques” for the purpose of fire hazard reduction in SEZs provided that no significant soil disturbance or significant vegetation damage will result from the use of equipment. (See Chapter 90: *Definitions*, for definitions of “innovative technology” vehicles and “innovative techniques.”) Project proposals should be developed within an adaptive management framework that will result in data that can be used to support and/or improve on equipment and techniques. TRPA shall conduct a pre-operation inspection of the site to decide if vehicle use is appropriate for the given situation, to verify the boundaries of the SEZ, and to identify other areas of concern. The following minimum conditions shall apply:
 - (i) Project proponents shall provide documentation substantiating that the use of such vehicles will not cause significant soil disturbance or significant vegetation damage. Documentation must take into account soil types, hydrology, vegetation type and cover, and other ecosystem characteristics, relevant to the use of such vehicles in similar environments. Documentation can include relevant scientific research, monitoring studies, and other supporting analyses;
 - (ii) Operations using “innovative technology” vehicles in SEZs shall be limited to the management of common conifer species (e.g., lodgepole pine, white fir), however, incidental hardwoods that need to be removed from within a conifer vegetation type may also be removed using the vehicles;

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- (iii) Operations shall be limited to times of the year when soils are sufficiently dry to avoid and/or minimize compaction and sufficiently stable to avoid and/or minimize erosion;
- (iv) Erosion control measures (BMPs) shall be implemented both during and after operations to avoid soil detachment and transport wherever possible, and to minimize erosion wherever soil disturbance cannot be avoided;
- (v) To prevent sediment delivery to surface waters, including wetlands, more stringent setbacks from perennial and intermittent streams than the setbacks set forth in other regulations regulating timber harvests, such as the California Forest Practice Rules and Nevada State Statutes, may be designated if deemed necessary by TRPA;
- (vi) Operations shall incorporate appropriate measures to avoid impacts to wildlife during critical wildlife nesting and denning periods in accordance with Chapter 62: *Wildlife Resources*;
- (vii) Operations shall incorporate measures to protect historic resources in accordance with Chapter 67: *Historic Resource Protection*; and
- (viii) Projects shall be monitored to ensure that the SEZ has not sustained any significant damage to soil or vegetation. Along with the project proposal, adaptive management concepts should be applied to the monitoring plan. A monitoring plan shall be submitted with all project proposals, including at a minimum: a list of sites and attributes to be monitored; specification of who will be responsible for conducting the monitoring and report; and a monitoring and reporting schedule.

2. **Soil Conditions**

All work within stream environment zones shall be limited to times of the year when soil conditions are dry and stable, or when conditions are adequate for over-snow tree removal operations without causing significant soil disturbance and/or significant vegetation damage (See subparagraph 61.1.6.F).

3. **Trees and Debris Kept from Streams**

Felled trees and harvest debris shall be kept out of all perennial or intermittent streams. If deposited in the stream, the material shall be removed unless it is determined that such logs and woody material adds structural diversity pursuant to fish and wildlife habitat improvements in accordance with Chapter 62: *Wildlife Resources*, and Chapter 63: *Fish Resources*. This determination shall be approved by TRPA. Logs or other woody material may be placed in streams to provide woody structure pursuant to fish or wildlife habitat improvement programs approved by TRPA in accordance with Chapter 63.

4. **Stream Crossings**

The crossing of perennial streams or other wet areas shall be limited to improved crossings meeting Best Management Practices or to temporary bridge spans that can be removed upon project completion or at the end of the work season, whichever is sooner. Any damage or disturbance to the stream environment zone associated with a temporary crossing shall be restored within one year of its removal. In no instance shall any method requiring the placing of rock and earthen material into the stream or streambed be considered an improved crossing. Other temporary measures may be permitted for dry stream crossings in accordance with the *Handbook of Best Management Practices*.

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5. Special Conditions

Special conditions shall be placed on all tree harvests within stream environment zones or within the transition or edge zone adjoining stream environment zones, as necessary to protect in-stream aquatic habitat values and wildlife habitat integrity and diversity.

D. Logging Roads, Skid Trails, and Landings

All logging roads, skid trails, and landings shall be constructed or otherwise created and maintained in accordance with the requirements of this chapter and the *Handbook of Best Management Practices*. Existing roads, skid trails, and landings shall be used whenever possible. New roads shall be approved only if TRPA finds that all alternatives have been explored and determines that the construction of new roads, skid trails, or landings would be the preferred alternative. In accordance with subparagraph 60.1.3.B, existing roads and landings may be accessed in the winter to help prepare for over-snow tree removal. Such preparation shall be limited to packing snow over the roadways to obtain a firm snow base and allow movement of logs and equipment without disturbance of the soil. The standards provided below also shall apply.

1. The requirements and standards for design, grade, tree felling in right-of-way, slash cleanup, width, and maintenance, by road type as determined by TRPA, shall be as shown in Tables 61.1.5-1 and 61.1.5-2.

TABLE 61.1.5-1: LOGGING ROADS AND SKID TRAILS: DESIGN AND GRADE		
Road Type	Design	Maximum Grade
Permanent administrative roads	Plans and specifications	10%
Limited use roads remaining open	Plans and specifications	10% with occasional 15%
Limited use roads closed after logging	Plans and specifications	10% with occasional 15%
Temporary roads	Flag line	20%
Tractor roads and main skid trails	Flag line	30%
Secondary skid trail	None	30%

TABLE 61.1.5-2: LOGGING ROADS AND SKID TRAILS: OTHER STANDARDS				
Road Type	Right of Way Tree Falling	Minimum Slash Cleanup	Maximum Width	Maintenance
Permanent administrative roads	Prefall	Removal within 50 feet of road	30 feet*	As determined by TRPA
Limited use roads remaining open	Prefall	Removal within 50 feet of road	15 feet 2/turnouts*	Annual maintenance required**
Limited use roads closed after logging	Prefall	Lop and scatter	15 feet 2/turnouts*	Close to vehicle use and revegetate
Temporary roads	Prefall	Lop and scatter	15 feet*	Close to vehicle use and revegetate
Tractor roads and main skid trails	Concurrent	Lop and scatter	15 feet	Close to vehicle use and revegetate
Secondary skid trails	Concurrent	Lop and scatter	15 feet	Close to vehicle use and revegetate

* Unless TRPA finds that greater width is necessary for feasible use or safety.

** "Annual Maintenance" includes activities such as restoring drainage features and making other road repairs as necessary.

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2. Skid trails shall be located so as to protect residual stands through utilization of natural openings and topographic characteristics. The number of skid trails shall be kept to the minimum necessary and their width shall be 15 feet or less. Directional felling shall be used whenever possible to minimize skid trail density. Main skid trails shall be flagged in advance of felling operations and shall require approval by TRPA.
3. Best Management Practices shall be installed on all skid trails, landings, and roads, no later than 15 days following completion of operations within a particular treatment unit, or at the time of seasonal shutdown, whichever is sooner.
4. Water breaks shall be spaced as provided below.
 - a. The maximum slope distance in feet by land capability district shall be according to Table 61.1.5-3.

TABLE 61.1.5-3: MAXIMUM SLOPE DISTANCE IN FEET BY LAND CAPABILITY DISTRICT		
Gradient	5-7	3-4
Less Than 10%	200	200
10 - 20%	150	90
21 - 30%	90	50

- b. Water breaks shall be placed at lesser intervals as necessary to prevent soil erosion caused by firebreaks, trails, or landings.
- c. Construction of water breaks shall be kept current with operations or at the time of seasonal shutdown, whichever is sooner. Erosion control work, including the design and interval of water breaks, shall require TRPA approval.
- d. Landing areas shall be properly drained in a manner to prevent soil erosion and stream pollution.

E. Removal Methods

Only the tree removal methods shown in Table 61.1.5-4 shall be used on lands located within the land capability districts shown.

TABLE 61.1.5-4: TREE REMOVAL METHODS	
Land Capability District	Removal Method
1a, 1c, or 2	Aerial removal, hand carry, and use of existing roads, in conformance with subsection 61.1.6. Over-snow removal may be approved pursuant to subparagraph 61.1.6.F.1.
1b (Stream Environment Zone)	As permitted in Land Capability District 1a, end lining may be approved when site conditions are dry and stable, or when winter conditions are adequate for end lining operations so as to avoid adverse impacts to the soil and vegetation. The use of "innovative technology" vehicles and/or "innovative techniques" for removing trees from SEZs may be considered pursuant to subparagraph 61.1.6.C.1.b.
3	As permitted in Land Capability District 1b, Ground skidding pursuant to subparagraph 61.1.6.F.2 may be approved.

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TABLE 61.1.5-4: TREE REMOVAL METHODS

Land Capability District	Removal Method
4 - 7, Inclusive	As permitted in Land Capability District 1b. Ground skidding, as well as pickup and removal by conventional construction equipment, may be approved. Ground-based vehicle systems for removing trees without skidding may be approved pursuant to subparagraph 61.1.6.F.5.

F. Skidding and Ground Based Vehicle Systems

Skidding is the act of dragging a tree or log along the ground or snow by cable systems or by mobile equipment. Ground skidding is the act of skidding a log or tree in full contact with the ground behind mobile equipment. End lining is dragging a log or tree in full contact with the ground by a winch. Cable yarding is the act of removing a log or tree by cable with one end of the log or tree in contact with the ground. Ground based vehicle systems are all-in-one “process at the stump” harvesters that cut, process and remove trees without any ground skidding.

1. Skidding over snow is preferred to ground skidding. The depth of the snow shall be sufficient to prevent disturbance of the soil beneath the snow as determined by site-specific field observations. Skidding operations shall cease when soil becomes visible on the surface of the snow.
2. Ground skidding shall be limited to Land Capability Districts 3, 4, 5, 6, and 7.
3. Logs shall only be skidded endwise.
4. No logging arches, other than integral arch equipment, shall be permitted.
5. Ground-based vehicle systems for removing trees without skidding, such as harvester and forwarder combinations, may be approved by TRPA for use in Land Capability Districts 4, 5, 6, and 7. The use of “innovative technology” vehicles and/or “innovative techniques” for removing trees without skidding may be considered in Land Capability District 1b and 3 pursuant to subparagraph 61.1.6.C.1 and subparagraph 61.1.6.E.

G. Slash Disposal

Slash shall be disposed of within two years of project completion by the methods below.

1. Lop and scatter, pile and burn or broadcast burn (consistent with Sections 61.2 and 65.1), chip, or haul away. All burns shall be located at least 50 feet from any stream channel, unless it can be demonstrated, using best available science, that slash burning within 50 feet of a channel will not cause adverse environmental impacts.
2. Cull logs and other material shall be disposed of as required by the permit.

H. Restocking

A stand of timber shall be considered to be adequately stocked or to have minimum acceptable stocking when it has thrifty trees well distributed over the growing area (rocky areas, brush fields, meadows, and bodies of water excepted) in which the residual stocking meets the requirements of the appropriate state or federal forestry agency, and desired species composition is maintained.

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I. Erosion Control

The adequacy of all required BMPs shall be confirmed at the time of the TRPA pre-operations inspection. Any modifications to the required BMPs as determined by TRPA shall be incorporated into the project permit at that time or as determined to be necessary throughout forest management operations. The following erosion control standards apply:

1. The following Temporary BMPs are required to be installed prior to the commencement of any forest management or equipment operations:
 - a. Temporary erosion controls and vegetation protection measures.
 - b. Equipment exclusion area boundary markings or fencing, as necessary to comply with the TRPA-approved forest management plan.
2. Excavated material shall be stored upslope from the excavated areas to the extent possible. No material shall be stored in any SEZ, wet area, or stream buffer zone.
3. Soil shall not be tracked off the project site. Equipment operations shall cease when a violation of this condition exists. The site shall be cleaned and the road right-of-way swept clean when necessary.
4. No equipment or vehicle repairs, other than necessary maintenance of harvest equipment, shall be permitted in the project area unless authorized by TRPA. The discharge of petroleum products, construction waste and litter (including sawdust), or earthen materials to the surface waters of the Lake Tahoe Basin is prohibited. Spill containment and absorbent materials shall be kept on site at all times. All petroleum products and hazardous waste shall be removed from the project area and disposed of at an approved location.

J. Historic Resource Protection

1. Operations shall incorporate measures to protect historic resources in accordance with Chapter 67: *Historic Resource Protection*. All historic resources located within the project area shall be flagged and avoided. Flagging shall be removed at the time of completion of operations.
2. If there is a discovery of a historic resource during vegetation management activities, all work shall cease in the vicinity of the discovery until significance is determined. Work may resume upon approval of a resource protection plan.

K. Wildlife, Habitat, and Sensitive Plants

1. Operations shall incorporate appropriate measures to avoid impacts to wildlife during critical wildlife nesting and denning periods in accordance with Chapter 62: *Wildlife Resources*.
2. Snags shall be retained in accordance with subsection 62.3.4.
3. Discovery of a TRPA-designated sensitive species or species of interest, or the location of a nest or den of one of those species, shall be immediately reported to TRPA. Any nests, dens, or plant locations shall be protected in accordance with TRPA regulations. All work within the project area shall cease until TRPA identifies under what conditions the project may continue.

61.1.7. Reasons for Tree Removal

Except for trees identified for retention under subsection 61.1.4, tree removal shall incorporate measures and prescriptions that promote a range of threshold standards and SEZs pursuant to subparagraph 61.1.6.C. Trees may be removed for the reasons provided below.

A. Hazardous Tree Removal

To protect lives and property, trees reported by a qualified forester to be hazardous to property or lives may be removed upon approval by TRPA. Other vegetation shall be protected during removal operations to prevent their injury.

B. Emergency Tree Removal

When a tree constitutes a physical emergency (e.g., imminent threat of falling on occupied or substantial structures or people), the tree may be removed, but the land owner or manager shall provide photographic documentation and all applicable paperwork and fees to TRPA within ten working days of removal of the hazardous tree.

C. Dead, Dying, or Diseased Tree Removal

To enhance forest health, dying, or diseased trees may be removed upon approval by TRPA. Dead trees less than or equal to 30 inches in westside forest types and less than or equal to 24 inches in eastside forest types may be removed without TRPA approval pursuant to subsection 2.3.2.E.

D. Fire Hazard Tree Removal

Trees identified and marked by a qualified forester as a fire hazard may be removed upon approval by TRPA or pursuant to a TRPA MOU Authorization. Trees identified and marked by a defensible space assessor for defensible space purposes associated with a building or structure may be removed upon approval by TRPA or pursuant to a TRPA MOU Authorization. Fuel reduction projects shall consider multiple threshold objectives. As an alternative to tree removal, the defensible space assessor may approve the limbing of trees that are determined to be a fire hazard, consistent with defensible space requirement of the applicable fire agency. (See Chapter 90 for definition of "fuels management.")

E. Tree Removal for Early Successional Stage Vegetation Management

Tree removal may be permitted when it has been determined by TRPA that it is appropriate to convert an area to, and/or maintain an area in, an early successional stage vegetation type. (See Chapter 90 for definition of "early successional stage vegetation management.") Where revegetation is required to stabilize soils and/or replace removed vegetation, the applicant shall provide a revegetation plan in accordance with subsection 61.4.5.

F. Tree Removal for Enhancement of Forest Health and Diversity

Tree removal may be permitted where the species or structural diversity of an area is not in accordance with management objectives. TRPA shall apply the criteria below in reviewing tree removal to enhance forest health and diversity.

1. A management plan that demonstrates the need for the project and the means of accomplishing the objectives listed below shall be prepared by a qualified forester.
 - a. Removal of trees shall not result in less than minimum stocking levels required by the applicable state or federal forestry agency.

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61.1.7 Reasons for Tree Removal

- b. If improved structural diversity is the objective, removal of trees shall be linked to a reforestation program that provides for the establishment of younger-aged trees, or be accompanied by a report from a qualified forester that states the reasons why a reforestation plan is not necessary to achieve structural diversity objectives.
 - c. If improved species diversity is the objective, removal of trees shall be linked to a reforestation program that provides for the establishment of native species other than the local dominant, or be accompanied by a report from a qualified forester that states the reasons why a reforestation plan is not necessary to achieve species diversity objectives.
 - d. On parcels of three acres or less, the tree removal permit may serve as the management plan.
2. The site proposed for tree removal for forest diversity shall be within a contiguous area of at least three acres in which a single tree species of similar age class dominates. There is no minimum acreage when removing trees for forest health or for successional management of stream environment zones.
- G. Tree Removal for Solar Access**
Removal of healthy trees to maximize efficiency of solar energy systems may be permitted according to the standards below.
1. TRPA may approve the removal of healthy trees provided TRPA finds that the trees unreasonably impede the operation of a solar energy system and that the solar energy system is properly located so as to minimize the need for tree removal.
 2. The number of healthy trees that may be removed for the system's operation shall be the minimum necessary.
 3. The only trees that shall be considered for removal for an active or passive solar energy system are those that lie generally south of the proposed solar collector and are in the sun's path between an 18° vertical angle measured from the base of the solar collector and a 70° vertical angle from the same base measurement. Trees on adjacent properties may be removed provided a contractual agreement to allow for such removal is signed by the affected parties. Tree removal may be conditioned upon replacement elsewhere on the property.
- H. Tree Removal for Ski Areas and Rights-Of-Way**
The tree removal standards below apply to ski areas and utility and public rights-of-way.
1. For expansion of ski areas, including but not limited to, the widening of runs and the addition or replacement of lifts, only the minimum number of trees necessary for the operation of the ski area shall be removed.
 2. The removal of trees within utility and public right-of-ways may be allowed if TRPA finds that the removal is for public health and safety. When a tree-related emergency exists, the utility or public agency may remove the trees and advise TRPA of the action on the next business day. At that time TRPA may issue an emergency permit in accordance with its Rules of Procedure.

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61.1 Tree Removal

61.1.8 Substantial Tree Removal

I. Tree Removal for Development

Tree removal for development in conjunction with a TRPA permit shall be in accordance with the provisions of this chapter and Section 33.6.

J. Tree Removal During Emergency Fire Suppression Activities

Trees may be removed when an emergency fire suppression need exists as determined by the local, state, or federal fire suppression agency involved in a fire suppression activity.

K. Tree Removal to Enhance Scenic View Points from Public Roadways

Select trees may be removed to enhance scenic viewpoints from scenic turnouts located on highways, public right-of-ways and other public lands immediately adjacent to highway corridors.

61.1.8. Substantial Tree Removal

Substantial tree removal shall be activities on project areas of three acres or more and proposing the removal of more than 100 live trees 14 inches dbh or larger, or proposing tree removal that as determined by TRPA after a joint inspection with appropriate state or federal Forestry staff does not meet the minimum acceptable stocking standards set forth in subparagraph 61.1.6.H. Substantial tree removal projects shall be processed by the appropriate state and federal agencies in coordination with TRPA as required below.

A. Private Parcels

The review process for private parcels shall include the following:

1. Harvest plan shall be written by a qualified forester;
2. Harvest plan shall be submitted to the appropriate state and federal agencies and TRPA with an initial environmental checklist or environmental assessment;
3. Preparation of environmental impact statement if necessary;
4. Pre-approval field review;
5. Approval of project by TRPA;
6. Pre-harvest field review; and
7. Post-harvest review.

B. Public Parcels

1. The review process for public parcels administered by the U.S. Forest Service shall include the following:
 - a. Coordination with TRPA at the initial planning stages;
 - b. Preparation of environmental assessment;
 - c. Preparation of environmental impact statement (if necessary);
 - d. Submittal of tree removal or harvest plan;
 - e. Approval of project by TRPA; and
 - f. TRPA monitoring and evaluation.
2. For other public parcels the process shall be the same as for private parcels in 1 above.

61.1.9. Commercial Tree Removal

A. General Standard

Trees may be removed as a commercial enterprise pursuant to the tree removal practices of subsection 61.1.6.

B. Cutting and Cultivation of Christmas Trees

Legally existing Christmas tree cultivation operations, when certified by a qualified forester to be utilizing native species and proper silvicultural methods, may continue upon approval by TRPA. New Christmas tree farm operations meeting the above conditions may be permitted if TRPA finds them to be in compliance with the Code and the applicable plan area statements.

61.2. PRESCRIBED BURNING

61.2.1. Purpose

This section sets forth standards and regulations pertaining to the use of fire in controlled circumstances for vegetation management.

61.2.2. Applicability

The standards and regulations in this section apply to all intentional burning for the purpose of vegetation management, unless otherwise exempt from TRPA review under the provisions of Chapter 2: *Applicability of the Code of Ordinances*.

61.2.3. Prescribed Burning

A. Prescribed Burning Allowed

Persons who own or manage forests or range lands may use prescribed burning, consistent with the standards and regulations set forth in this section, to maintain forest health and diversity and to reduce the risk of wildfire.

B. Limitations

Prescribed burning shall be limited to the following activities:

1. Seral stage management;
2. Fuels management;
3. Wildlife habitat management;
4. Silviculture; or
5. Pest control.

61.2.4. Performance Standards

The use of prescribed burning for vegetation management shall comply with the standards provided below.

A. Location of Prescribed Burning

The use of prescribed burning shall be limited to those areas where the plan area statements designate as a permissible use one or more of the following uses:

1. Nonstructural wildlife habitat management;
2. Range improvement;
3. Fuels management; or