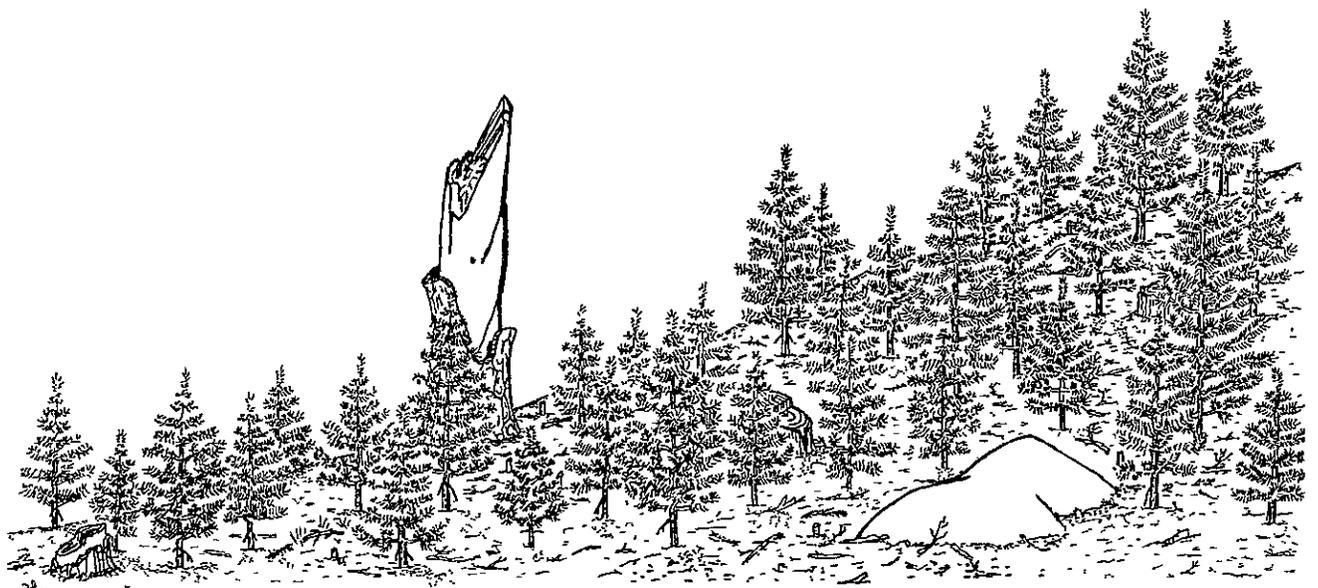


Chapter IV
Management Direction



IV. Management Direction

A. Introduction

Chapter IV outlines the direction for managing the Eldorado. Management direction makes the Plan functional and enables its users to perform on-the-ground activities. Forest personnel apply management direction to attain long-term program results and achieve a desired future condition for National Forest land.

1. Concept of Management Direction

Management direction provides the means to implement the Forest Plan. Direction is the key to dealing with planning issues and translating long-term forest goals and objectives into measurable short-term production of goods and services from the Forest.

Management direction descends several levels of development. Initially direction is formulated on a national plane. Federal laws and regulations serve as primary sources of management direction. Forest planning nationally is guided by such laws as RPA, NFMA, and NEPA. Each of these laws are expanded under various Codes of Federal Regulations (CFR's) that correspond to them. State laws for water and air quality must be met on federal lands.

The Forest Service further interprets these forms of national direction into service-wide policy. The policy for land and resource management planning is stated in the 1920 section of the Forest Service Manual (FSM). Social analysis policy for planning is found in 1970 FSM.

The next sequential level of agency direction appears in Forest Service Regional Guides described in the NFMA. The Eldorado gets further direction from both the Pacific Southwest (R-5) Regional Guide and the LMP Direction supplement to the Regional Guide. This direction contains detailed instruction to forests on preparation of individual plans.

The Plan itself conveys all of these higher orders of direction to Chapter IV, where it is displayed in the form of goals, objectives, management emphasis, practices, standards, and guidelines. Therefore, the concept of management direction is that it becomes more refined as it reaches closer to the land. Broad national direction funnels down to site-specific direction for the Eldorado National Forest.

2. Plan Implementation

Forest plan implementation is activated by an annual planning, programming, and budgeting (PPB) process. PPB is a system that is external to the Plan, but it converts long-range planning goals and objectives to fiscal year programs and budgets. Congressional

appropriations to the Eldorado help establish management attainment targets for the Supervisor and District Rangers to meet the average annual outputs projected for the entire planning decade.

The negotiated annual program of work for the Eldorado is turned into an Action Plan when each fiscal year's budget is final. A District Action Plan is made up from several individual Project Work Plans (PWP's). The PWP's respond in detail to the broader program level direction in the Forest Plan. A related Program Accounting and Management Attainment Reporting System (PAMARS) provides feedback to assess managerial accountability and assist in monitoring and evaluation of the Plan.

Most of the above mentioned projects are covered by Environmental Assessments and Decision Notices. Normally Forest Plan direction is used as an umbrella for project environmental analysis. These EA's are tiered to the Eldorado EIS and Forest Plan to disclose the environmental consequences of project actions not precisely analyzed at the program level.

3. Direction Components

Forest management direction is divided into five descending levels of application, as follows:

- Goals
 - Objectives
 - Management Emphasis
 - Forest Practices
 - Standards and Guidelines

Standards and guidelines express the most explicit direction for land managers. They are stated on either a Forest-wide basis or for individual management areas.

B. Goals and Objectives

1. Goals

Forest goals attempt to describe the future condition of the land that the Forest Plan is expected to achieve. Objectives and subsequent levels of direction are aimed at accomplishing these goals. The Forest goals tie closely to planning issues described in Chapter II and comply with applicable laws and regulations. The goals of the Eldorado are as follows:

Recreation

- * Provide a wide range of developed and dispersed recreation opportunities that meet projected demand at the end of the planning period. Public uses take priority over uses of a semipublic nature, and these in turn take priority over private uses. Stress simpler, more natural recreation experiences over dense, sophisticated developments.

Visual Resources

- * Protect the most visually sensitive areas of the Forest by placing major roads, trails, streams, and areas of concentrated visitor use in scenic corridors and managed viewsheds.

Cultural Resources

- * Locate, preserve and enhance representative historical and archaeological properties that typify the social and economic evolution of Forest lands and cultures.

Wilderness

- * Maintain a lasting system of quality Wilderness for public use and appreciation of the unique characteristics of wilderness, consistent with preserving its values.

Wild and scenic Rivers

- * Manage the Wild, Scenic, and Recreation Rivers to preserve their free flowing characteristics and protect their outstandingly remarkable values.

Special Interest Areas

- * Preserve the integrity of the botanical, archeological, geological, and recreational features for which the areas were established.

Wildlife and Fish

- * Maintain and enhance populations of threatened and endangered wildlife and plant species and maintain viable populations of sensitive species. Provide a diverse habitat for all species, including harvestable game fish and wildlife.

Range

- * Maintain current levels of livestock grazing and take advantage of additional forage induced by even-aged timber management.

Timber

- * Sustain a long-term yield of logs and other wood products by practicing the most intensive forms of timber management on the most productive sites. Increase this yield by application of high utilization standards and scientific silvicultural growth techniques.

Pest Management

- * Employ an integrated pest management program to minimize losses from forest pests and aid in reforestation and timber stand improvement.

Geology and Groundwater

- * In areas identified as susceptible to slope instability, analyze risks of management activities so as to avoid initiation or acceleration of slope movement and to protect human safety and Forest resources.
- * Prevent degradation of groundwater quality and develop groundwater sources to meet domestic, livestock and wildlife needs.

Soil, Water, and Air

- * Conserve or improve the inherent long-term soil productivity through the incorporation of soils information into land management decisions and through soil quality monitoring.
- * Protect streams, lakes, wetlands and the riparian vegetation that surrounds them. Establish a permanent Streamside Management Zone to furnish shade, ground cover and natural environmental elements, which maintain high water quality and enhance fish and wildlife habitat. Limit cumulative disturbing impacts on watershed within the Forest.
- * Induce moderate increased in water yield by direct watershed improvement projects, meadow rehabilitation and expansion projects, and snowpack manipulation associated with timber harvest practices in true fir timber stands.
- * Conduct all Forest activities affecting air quality to meet airshed standards established by the California State Air Resources Board.

Energy

- * Provide for energy efficiency in management of government buildings, facilities, and vehicles.
- * Develop the potential to produce wind and biomass energy.
- * Facilitate permitting of hydroelectric and other new energy development that reasonably protects all resources.

Minerals

- * Cooperate and participate with mineral lessees, claimants and permittees in the development of mineral resources under the laws and regulations that govern them.
- * Develop and maintain a materials source inventory for Forest uses.

Lands

- * Seek optimum landownership patterns by means of land adjustment in order to reduce problems related to intermingled private lands.

Human Resources

- * Utilize human resource programs to meet equal employment opportunity and affirmative action goals both through concerted community outreach and as employment contacts.

Fire

- * Provide a sufficient level of fire protection and treat natural and activity fuels to assure a continuous flow of projected outputs and amenities from the Forest.

Transportation

- * Develop and maintain the Forest transportation system for the through traveling public, while providing safe, efficient routes for recreationists.

Facilities

- * Build and maintain fire and other (FA&O) facilities to serve resource, and support program needs. Make them functional, energy efficient, and attractive to the public.
- * Remove or replace unsafe, obsolete facilities.

Research

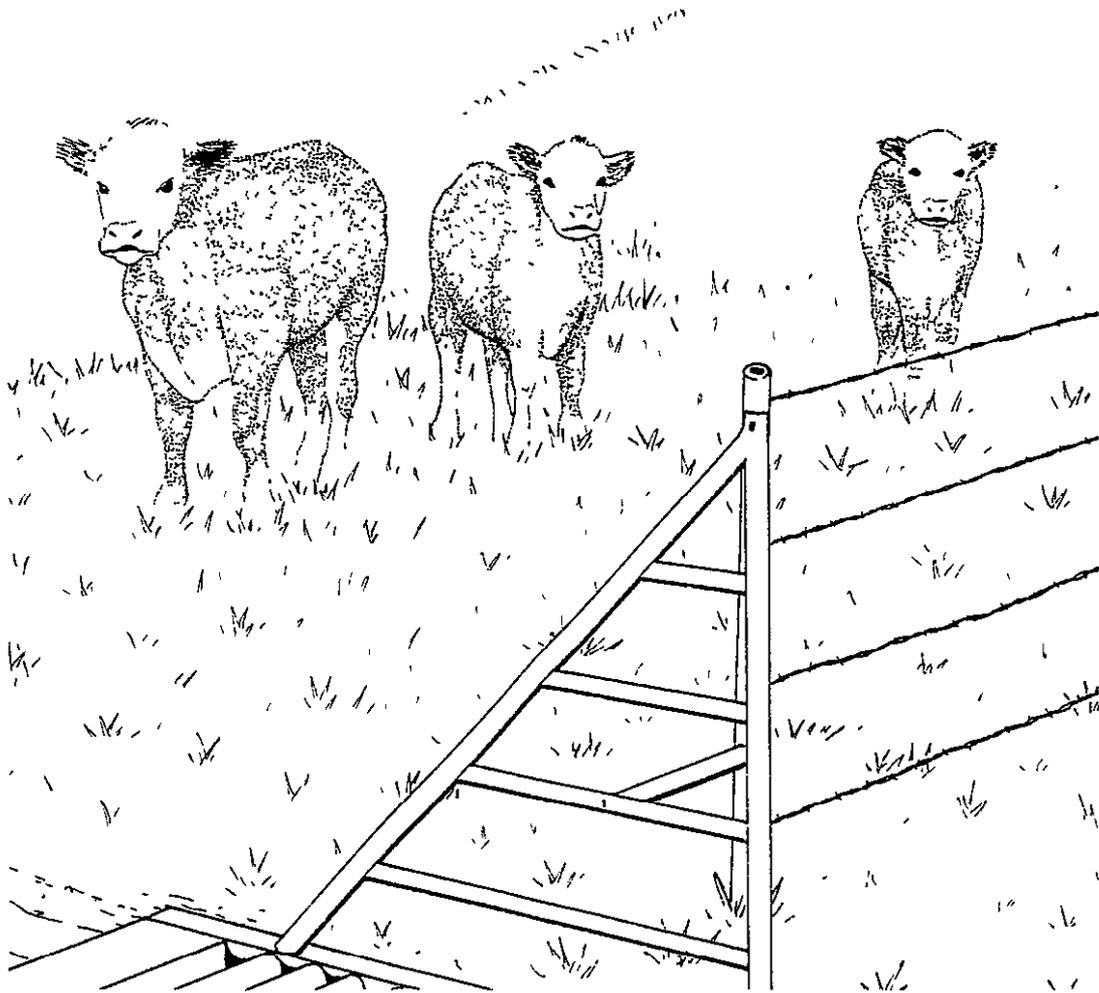
- * Provide opportunities for baseline ecological research in the Station Creek, Peavine, and Snow Canyon Research Natural Areas.

Budget

- * Produce Forest goods and services in the most cost efficient way consistent with providing net public benefits.

2. Objectives

Objectives are the average annual outputs that are calculated to accomplish planning goals and address the planning issues. Table IV-1 itemizes the average annual outputs for decades one and two for the resource elements of the Forest Plan. These outputs can be compared to the 1982 base year outputs and the 1990 and 2000 RPA program targets.



The RPA targets shown on Table IV-1 are derived from an assessment of the Forest's capability and suitability for producing resource outputs. The numbers represent the Eldorado's share of meeting national targets published in the 1980 RPA Program. Attainment of these targets was a prime consideration in formulation of the Plan. The output data gives a graphic evaluation of how the Plan meets RPA goals for decades 1990 and 2000.

The base year in Table IV-1 is 1982. Targets are expressed in average annual outputs per decade. A 50-year planning horizon, comprised of 5 decades or planning periods, was used to estimate outputs. The first decade lists short-term planning objectives, and the figures are firm unless the Forest Plan is revised or amended. The next decade projects long-term planning objectives, which may be reconsidered when a subsequent 10-year Forest Plan is prepared.

Recreation

The Forest Plan will substantially exceed RPA targets for Developed Recreation throughout its 50-year planning horizon. Developed Recreation includes RVD use attributed to both the public and private sector. The Forest Recreation Information Management (RIM) records show that the Eldorado has a sufficient number of potential sites available to handle the Forest Plan's increased RVD output over RPA, although some adjustments in types of use may be necessary. A significant portion of the public sector facilities will be associated with reservoirs to be built for upcoming hydroelectric projects. The private sector RVD increase is generally related to development of potential downhill ski facilities. Overall, the Forest will boost Developed Recreation by 1,019.4 MRVD's from the 1982 Base Year to the end of the first decade of the Forest Plan.

Dispersed Recreation will increase more gradually over the 50-year planning horizon but will also exceed RPA targets in every decade. Dispersed Recreation includes Wilderness RVD's and WFUD's. The Eldorado has sufficient dispersed area acres available to accommodate the total RVD use, but individual types of Dispersed Recreation visitors may be competing with others for popular segments of the Forest, both winter and summer. This competition will lead to further regulatory policy to mitigate user conflicts. Dispersed Recreation shows an increase of 245 MRVD's from the 1982 Base Year to the end of the first decade.

Other measures of recreation outputs not tracked in the RPA Program are Visual Quality, Wilderness, Wild and Scenic Rivers, Research Natural Areas, and Special Interest Areas. The Visual Quality Index (VQI) is 39.41 for the first decade.

Wilderness acres have increased from 82,565 in the 1982 Base Year to 102,059 in the first decade of the Forest Plan. The additional 19,494 acres resulted from Congressional designation of the Mokelumne

Addition in the California Wilderness Act of 1984. An additional 13,694 acres of the Caples Creek Further Planning Area is recommended for addition to the wilderness system. If Congress designates this area as wilderness, the total wilderness on the Eldorado will be 115,753 acres.

The Forest Plan recommends designation of the Rubicon River as a Scenic River. The North Fork of the Mokelumne above Salt Springs Reservoir is being studied and a recommendation, if any, will be made in the Stanislaus National Forest Plan. That portion of the river on the Eldorado will be managed to protect its values until a decision is made. The Forest did not previously have any designated Wild and Scenic Rivers, so there would be an increase of 17,881 acres over the zero acres in the 1982 Base Year. The North Fork of the Mokelumne, if designated by Congress, will be shared with the Stanislaus National Forest. The river is located entirely inside the Mokelumne Wilderness on the Eldorado portion. Further study of the North Fork of the Mokelumne below Salt Springs Reservoir is recommended to determine suitability for inclusion in the Wild and River Scenic River System.

The Forest Plan also recommends establishment of two Research Natural Areas where none previously existed on the Forest. Peavine and Station Creek RNA's total 1,862 acres, representing an increase over the zero acres in the 1982 Base Year. Two RNA's (Snow Canyon and Middle Mountain) are also recommended for study for possible inclusion in the system.

Nine Special Interest Areas will be established with approval of this Plan. Again, none of these types of areas previously existed, resulting in an increase of approximately 20,623 acres over the zero acres in the 1982 Base Year. National Recreation Trails will increase by 32.0 miles, with congressional approval, over the existing 52.3 miles in the 1982 Base Year.

Wildlife and Fish

The National RPA target for Wildlife and Fish is measured in terms of acres of direct Wildlife Habitat Improvement. The Forest Plan reflects an increase in targets over RPA. The Forest Plan also shows an increase of 776 acres of direct improvement over the 1982 Base Year.

The Pacific Southwest Regional Guide identifies additional Wildlife and Fish targets, which are referenced as RPA Program Objectives. These targets are projected for 1990 only. Outputs include (1) animal numbers of Deer Habitat Capability, (2) Numbers of Cavity Nesting Birds expressed as a percent of the 1982 Base Year, and (3) thousand pounds of Resident Fish produced in Eldorado streams. The Forest will contribute a portion of the target for deer habitat capability improvement on the winter range. In some cases, a majority of the critical winter range for some herds is on private

land adjacent to the Forest where the Forest Service has no authority to manage. Winter range improvements on National Forest land will follow guidelines developed in cooperation with the California Department of Fish and Game.

The percent of Cavity Nesting Birds will gradually decrease in the long-term. A predicted 2% loss over 10-15 years is attributed to the inability to save snags in cable-logged clearcutting units. Resident Fish production in the Forest Plan increases 6.3 M pounds over the 1982 Base Year and 2.7 M pounds over the Regional RPA Program Objective.

The RPA program does not set targets for threatened, endangered, or sensitive species. However, the Forest will continue to work toward increasing populations of threatened and endangered species to meet recovery plan goals. It is anticipated that the Forest will support one pair of bald eagles and one pair of peregrine falcons within the first decade. Habitat capability will remain to support an estimated 73 pairs of spotted owls through the first decade based on the current population estimate and the effects of future timber sale activity. Habitat capability to support 51 pairs of goshawk will remain unchanged through the first decade since all 51 habitat areas identified in the 1983 survey are being protected. It is likely that additional habitat areas exist but have not been identified.

Range

The Forest Plan provides for continuing the grazing program at approximately current output levels. Adherence to Standards and Guidelines will result in increased quality of rangelands on the Forest. The Eldorado will not meet the Regional Range Production Target projected for the year 2030.

Timber

The volumes to be offered are slightly lower than RPA timber targets for the first decade. Volume Offered for Sale is to 146.5 MMBF/22.5 MMCF in the first decade and remains at that level through the next four periods. The figures are based on using a 1984 land-satellite timber inventory, which replaced the conventional aerial photo inventory used for the 1978 Eldorado Timber Management Plan. The land-satellite inventory much more accurately reflects standing volumes.

Timber Stand Improvement acres increase to a high of 8,600 in the second decade. Both figures are substantially above the RPA targets of 1,556 acres for the Year 1990 and 1,597 acres for the Year 2000. The FY 1982 Base Year is 2,300 acres; therefore, output never falls below the base level.

Reforestation acres take their sharpest rise in the first decade at 4,300 acres. The sharp difference between the Year 1990 RPA target and the first Decade of the Forest Plan is the most obvious increase, representing a rise of 2,510 acres per year. Both Timber Stand Improvement and Reforestation acres reflect a management shift to even-aged silviculture on suitable timber lands.

Cords of Firewood and cubic feet of Biomass are not RPA targets. However, the Eldorado shows increases over the 1982 Base Year for both of these timber products in the Forest Plan.

Pest Management

Pest Management does not have an RPA target. Activities tie to the support given to other Eldorado programs by Pest Management.

Soil, Water, and Air

The Forest Plan does not meet RPA targets, which are measured by M acre-feet of Water Quality at standard and acres of Watershed Improvement. The RPA figures erroneously show Water Quality outputs that are higher than the forest is capable of producing, regardless of vegetative management or watershed improvement projects that could be implemented. This resulted from including areas of land in the base which are now administered by the Lake Tahoe Basin Management Unit. The Forest Plan does increase M acre-feet outputs over the 1982 Base Year, because limited improvements increase runoff slightly. The important factor here is that all runoff from the Eldorado will meet Water Quality objectives. This accomplishment is notable in that the Forest Plan simultaneously indicates an increase in Watershed Disturbance from the 1982 Base Year Index of 25.0 M acres. Water Quality objectives are maintained because of employment of Best Management Practices (BMP's), application of a Streamside Management Zone, and use of Watershed Disturbance requirements, which hold cumulative watershed impacts below a damaging threshold level.

The RPA Program does not identify numerical targets for Air Quality. The Eldorado will adhere to California State Air Resources Board requirements for clean air.

Energy

The RPA Program does not set targets for energy.

Geology and Groundwater

The RPA Program does not set targets for geology and groundwater.

Special Areas

The RPA Program does not set targets for special areas.

Minerals

The Forest Plan exceeds the RPA Minerals target. Minerals activities are measured in the RPA Program by the number of Plans of Operations filed annually with District Rangers. The projected outputs for the Forest Plan include Plans of Operations, Notices of Intent, and Leases and Permits issued. For this reason, 1982 Base Year and Forest Plan periodic outputs are more than 10 times greater than the 7 and 9 Plans of Operations scheduled for RPA Years 1990 and 2030. The assumption made by the Eldorado is that the enlarged numbers generated by handling all three types of minerals documents satisfies RPA projections.

Lands

The RPA Program carries a target item for Lands Purchased or Acquired by number of acres. The Eldorado National Forest was assigned zero outputs in this category by the Region. Lands Purchased or Acquired do not carry a 1982 Base Year number of outputs.

The Forest, however, has carried on an active landownership adjustment program for several years and expects to continue consolidating intermingled private lands and disposing of scattered, unmanageable lands by donation, purchase, and exchange. Therefore, the Plan lists acres of Land Acquisition to be obtained mainly from Land and Water Conservation Act (LWCA) fee collection purchases of eligible recreation lands and planned exchanges. Outputs average about 150 acres annually during the planning period.

Fire

Fire is defined as Protection under RPA terminology. Targets are measured in acres of Fuel Treatment. Both treatment of Natural Fuels and Activity Fuels is counted. The Forest Plan again significantly exceeds the RPA targets of 2,500 acres for the Year 1990 and 2,600 acres for the Year 2000. The first decade produces 7,100 acres of Fuel Treatment annually. The output level tapers off slightly in the second decade to 4,900 acres.

Expected Wildfire acres are not an RPA target. Implementation of an "Current Plus 20 percent" Fire Program in the Forest Plan results in an initial drop in Expected Wildfire acres burned. The first decade shows 727 acres in all Fire Intensity Classes as opposed to 1,072 acres in the 1982 Base Year. Burned acres then increase to 744 acres in the second decade. While the Fire Program remains the same, the increase in Expected Wildfire acres burned is attributed to the steady change of the forest condition to a much greater distribution of younger tree age-classes.

The fire management program will emphasize the current program with approximately 18 percent of the program budgeted for prevention, 5 percent for detection, 47 percent for initial attack, 11 percent for air support, and 19 percent for fuel treatment. This program mix will then be given added strength and depth with an additional 20 percent increase in funding.

Transportation

The Forest Plan exceeds RPA targets for Road and Trail Construction and Reconstruction. The RPA targets are measured in terms of combined construction/reconstruction miles. The 1982 Base Year shows a total construction/reconstruction program of 120 miles of road, while the RPA targets are 12 miles for Year 1990 and 18 miles for Year 2030. Annually, the Forest will handle 106 combined miles in the first decade, 42.8 miles of which are scheduled for construction. The miles of new Road Construction then drop to 3.4 miles in the second decade, because the Eldorado Transportation Development System becomes substantially complete in the next 10 years. On the other hand, Road Reconstruction is scheduled at 50-60 miles per year over the long-term, reflecting an active upkeep and improvement program for existing roads. The majority of all roads constructed or reconstructed serve the timber program in the General Forest Zone and are not located in the High Country.

The Forest Plan gives emphasis to the trail program, stressing extensive new construction in the first decade to complete the system early in the planning horizon. The overall trail program exceeds RPA targets and is an increase over the 1982 Base Year. Development includes foot, stock, and motorized trails of less than 40-inch tread width. Part of the miles of new construction will be devoted to short loop trails in the General Forest Zone.

Facilities

The RPA Program does not set targets for facilities. Most Forest Service Dams and Reservoirs will remain status quo in the long-term. The number of Forest Service owned Administrative Sites will reduce from 17 to 13, while Leased Sites will reduce from 4 to 2.

The most notable feature listed under Facilities is the number of Private or State/Local Dams and Reservoirs. These will climb significantly in quantity because of the large number of major and minor hydroelectric projects proposed to be built on the Eldorado. Many of these are large-scale projects entailing high dams backing up reservoirs of 1,000 acres or more of surface area.

Research

The Research outlook for the Eldorado is listed in Forest Plan Appendix B, Research Needs and Technical Planning Needs.

Human Resources

The Forest Plan nearly triples RPA Human Resource targets for Program Enrollees. The RPA Program lists 14 individuals for each of the Years 1990 and 2000. The 1982 Base Year is 33 individuals, while the Forest Plan raises total Program Enrollees to 37 per year.

Budget

The Forest Plan generally exceeds the above RPA targets, with most budget levels being less than those projected by the RPA Program. The measure is Total Cost in millions of dollars. The Eldorado appears to be operating quite efficiently by producing more outputs at a lower Total Cost than forecast by RPA. The first decade Forest Plan annual budget is very close to meeting RPA at \$17.6 MM versus \$17.1 MM. Then the Forest Plan budget dips to \$14.4 MM annually in the second decade. Finally, the Forest Plan Total Cost exceeds the 1982 Base Year in the first decade and drops below the target in the second decade.

C. Future Condition of the Forest

The future condition of the Forest can also be described by the same resource elements as goals and objectives.

Recreation

Recreation has been an important Eldorado resource in the past. It will become even more prominent in the future, because of the Forest's natural scenic and environmental attractions and proximity to major metropolitan areas.

The projected increase in developed and dispersed RVD's will saturate the Forest with visitors on peak weekends and holidays. Facilities will be built in both the public and private recreation sectors to accommodate the increased developed use. Roads and trails will be constructed to support recreation travel. Dispersed use will intensify in numbers of RVD's and purpose of visit as the interest and variety of dispersed recreation uses magnify. The local economy, which provides retail sales and services for tourism, will thrive.

Increased visitor numbers may prompt establishment of more rigid Eldorado policy or restrictions for managing recreation and other internal resource conflicts. Permit and quota systems may be set up in addition to those now in force. It appears likely that user fees will increase and charges will be expanded to cover recreation uses that are now free. Operation and maintenance of visitor facilities may be contracted to Concessionaires. "Pay as you go" will become a general theme for most forms of recreation.

reference to ^{Conflicts with} 1979 ORV Plan
After implementation of the new Forest ORV Plan in 1990, ORV use will take place almost exclusively on a trail system. The Forest will be closed to ORV use except on trails and areas specifically designated as "OPEN". Extensive ORV trail construction is proposed.

The Eldorado will retain quality experiences for all classes of use on the Recreation Opportunity Spectrum. The Forest Plan, in particular, will conserve a reasonable amount of visual quality, mostly along primary roads, recreation sites, and other high use areas. Large amounts of the Forest will be maintained in a natural or near-natural state in Wildernesses; Wild, Scenic, and Recreation Rivers; Research Natural Areas; Special Interest Areas; and Primitive and Semiprimitive Nonmotorized Management Areas, which emphasize dispersed use.

Wildlife and Fish

Diversity of wildlife habitat types will be maintained in all seral stages to provide a balanced distribution of viable populations of species now found on the Eldorado. Special management requirements will perpetuate the sensitive spotted owl and goshawk species. Recovery plans will be employed to reintroduce peregrine falcons and provide habitat management to meet Forest recovery targets for peregrine falcons and bald eagles. Deer herd habitat will be managed in accordance with California Department of Fish and Game Deer Herd Plans to perpetuate this important game species.

Fishable streams will continue to meet high standards for water quality through maintenance of riparian zones, by redistribution of cattle in range management, and a reduction of timber harvest in the streamside management zone. Future hydroelectric development on the Eldorado will alter the natural flow regime. Pounds of fish, however, can increase when planned fish habitat improvement projects are completed or when regulated hydro flows provide a better year-round release of water from reservoirs into downstream fisheries. Hydro projects with storage capacity will replace stream fisheries with two-story (warm water/cold water) reservoir fisheries, offering a diversified fishing experience. Thus, the fishing experience will show a slight decrease in stream fishing and a corresponding increase in reservoir fishing.

Range

Grazing of livestock will remain at current levels. Increased forage will be produced in suitable timber areas that are regenerated under even-aged silvicultural systems. Forage grown in cutting units will generally be made available to cattle while the seedlings will be protected from trampling.

Timber

Timber management practices will progressively bring intensively managed portions of the Forest closer to future regulation. Even-aged and uneven-aged silvicultural systems will be employed on 307,615 acres of the General Forest Zone and Streamside Management Zone to produce an Allowable Sale Quantity of 137.2 MMBF per year for the next five decades. As time moves ahead an even-aged stand mosaic will clearly begin to appear in those timber stands not otherwise affected by Visual Quality and Streamside Management Requirements. Individual tree selection or group selection harvests will be practiced in the Retention Foreground view areas in Scenic Corridors and other Sensitivity Level 1 viewsheds. Uneven-aged silviculture will generally be practiced in the Streamside Management Zone, including the 100-foot riparian strips surrounding lakes and on both sides of Class I, II, and III Streams.

Openings created by clearcutting and shelterwood harvest methods will be more apparent to visitors who travel beyond the Sensitivity Level 1 view areas while in the General Forest Zone. The Forest Plan calls for 20,840 total acres of clearcutting and 18,360 total acres of shelterwood cutting in the first decade. Clearcut units may be laid out to a maximum size of 40 acres in areas where the Visual Quality Objective is Modification or Maximum Modification.

Many low sites are located in the regulated or suitable timber part of the Forest. As a rule, trees on low sites will also be removed by selection or group selection, except clearcutting and shelterwood cutting may be practiced where harvest units can be regenerated in 5 years and where long-term soil productivity can be maintained.

All other timber harvesting outside the above areas (and exclusive of designated areas where cutting is prohibited by law or regulation) is performed on an unregulated basis. Approximately 9.3 MMBF per year will be removed from 150,366 acres classified as unsuitable for regulated harvest. Very little disturbance due to timber harvesting will be noted on these acres, as most cutting methods deal with intermediate sanitation and salvage to keep the stands healthy for reasons other than timber emphasis.

Pest Management

The Eldorado will continue to employ a full range of techniques to prevent damage to the Forest, reduce pest populations, and create vegetative situations that are least susceptible to pest damage. The future Forest condition will remain healthy and visually attractive because active pest management practices will reduce resource losses and improve productivity.

Soil, Water, and Air

The amount of soil disturbing activities will continue to increase on the Forest. Timber management practices will use even-age and uneven-age silvicultural systems to bring the Forest close to regulation. In order to prevent the degradation of soil productivity, water and air quality, the Forest Plan incorporated several management requirements. Water disturbance limits, Streamside Management Zone requirements, and application of Best Management Practices are designed to maintain and improve water quality. The implementation of these measures, to the extent they reduce/preclude accelerated erosion and compaction will have synergistic benefits to the maintenance of soil productivity. Cumulative effects on watershed will be studied to keep disturbing activities below thresholds at which potential damage might occur.

Air quality attainment on the Eldorado will be largely influenced by pollutants drifting in from outside sources that are beyond the Forest's control to manage. Management activities internal to the Eldorado will adhere to rules applied by the California State Air Resources Board and the Forest Service Air Resource Management System. In general, visitors can expect to find clean air conditions over the Forest, which improves with an increase in elevation and the distance from pollution sources in the Central Valley of California.

Energy

Hydroelectric power is the primary energy resource on the Eldorado. It is a clean and relatively cheap source of energy that still has considerable developmental potential on the Forest. Each subsequent project affects the environment, and adverse consequences will have to be mitigated by the proponent. The South Fork of the American River (SOFAR), the North Fork of the Cosumnes River (CRWPA), Cole Creek (Willow Springs Water District), Bear River (PG&E), and Devils' Nose on the lower North Fork of the Mokelumne (Amador County) are major hydroelectric projects that may be completed in the first two decades of the Forest Plan. Besides meeting regional and national energy needs, these large projects usually carry considerable recreation benefits, because licensees are required to provide facilities for recreation use induced by such projects.

Areas with wind energy resource potential are generally situated too far from existing electrical transmission lines to make them feasible sites for wind turbines. Potential sites are inventoried but environmental effects on the Forest have never been analyzed. The likelihood for future development appears slim. Solar and geothermal do not appear to be feasible sources of energy on the Eldorado. The Forest has no known oil, gas, or coal reserves.

Minerals

Most of the Eldorado will remain open to mineral leases and claims. Statutory withdrawals are in effect for 102,059 acres of wilderness, subject to valid existing rights. The Forest Plan recommends additional withdrawals for wilderness, designated Wild and Scenic Rivers, Research Natural Areas, Public and Private Sector Developed Recreation, Winter Sports Sites, and Administrative Sites. This action would add 20,330 acres to the withdrawal total in the first decade. As potential Developed Recreation and Winter Sports sites are built, they would also be withdrawn. Eventually another 6,552 acres could be withdrawn over the planning horizon. As a result, 465,214 acres of the Eldorado National Forest, or about 78 percent of the net land base would remain open to mineral entry. Saleable mineral materials will be handled by permit on an individual case basis. Future saleable activity is unpredictable and tends to fluctuate with the minerals commodity market. However, a largely unrestricted opportunity for further development will exist over a high proportion of Eldorado lands.

On Forest use of mineral materials may increase in the 1st decade as some of the most remote and steepest (and final) portions of the Forest Transportation System are completed. Additional materials sources will be developed to provide aggregate pit run material, riprap, and borrow material for new road surfacing, on-going road reconstruction and maintenance, and watershed restoration projects.

Lands

The future landownership pattern should have fewer intermingled public and private holdings. Large interior private ownership will be consolidated into contiguous blocks. The Eldorado will dispose of many small parcels scattered outside the main western boundary of the Forest. In general, an effective landownership program will make administration of the Eldorado easier, while the purchase or acquisition of lands by exchange will add to the Forest's resource potential. Lands with high future recreation value, for instance, may be purchased with Land and Water Conservation Act funds.

The Land Line Location program will be substantially completed along common property boundaries in the first decade, making project implementation smoother and eliminating most future trespass possibilities.

As build-out on adjacent private lands progresses, requests for use of National Forest land will increase. Types of uses usually associated with private development include telephone and electric power transmission lines, roads, driveways, water supply, and water transmission lines. Efforts will be directed toward restricting the private use of public land to those cases where private land cannot meet the need and such use will not be adverse to the public interest.

The demand for electronic sites will continue, however, advancement in technology and satellite use may reduce this use in the future.

Acquisition of rights-of-way will essentially be completed by the end of the first decade, because the road and trail network will have been essentially completed by then.

There are no transportation and utility corridors designated. Future proposals to construct a corridor through the Eldorado may be anticipated; however, the potential for conflicts between such a corridor and other Forest uses are likely to increase over time.

Geology and Groundwater

In the next one to two decades, some of the more landslide prone terrain will be accessed by constructing the final portions of the Forest road system and associated temporary roads. Also, some of the steeper timbered areas will be harvested, increasingly utilizing clearcutting and shelterwood harvest methods. However, due to increased emphasis on maintaining soil productivity and water quality, application of geologic and geotechnical techniques and mitigation measures to these areas will help reduce the risks of landslide activity and keep it within acceptable limits.

More recreation areas and other sites requiring safe drinking water will be supplied by properly installed wells.

Special Areas

Nine Special Interest Areas, and five National Recreation Trails will be managed principally for their recreation use, substantially in their natural condition. The SIA's will be managed to preserve the integrity of the feature for which they were established. Research Natural Areas will be maintained in their natural condition for research, educational, and other uses.

Fire

Expected wildfire acres burned will decrease from current averages in the first two decades. The Forest Plan employs a "Current Plus 20 percent" Fire Program that is weighted to an aggressive attack (suppression) effort rather than having heavy reliance on fuel treatment practices. This program is predicated on a tolerable net resource loss limit, and will result in some large fires occurring on the landscape. Change from the present will be subtle.

The Forest Plan proposes the preparation of a Fire Management Action Plan for Desolation and Mokelumne Wildernesses. Implementation of the Fire Management Action Plans in the first decade will allow unplanned and planned ignitions in these two Wildernesses to be managed in a manner that duplicates the role of natural fire in the environment and reduces isolated heavy fuel loadings.

The Eldorado proposes to treat both natural fuels and activity fuels. The activity fuels are largely generated by timber and road construction activities. The minimum level of planned treatment in the future is 4,900 combined acres per year. The maximum level of treatment, which occurs in the first decade, is 7,100 combined acres per year. The future benefit is reduced fire hazard throughout treated areas of the Forest. An adverse future effect is that more smoke from fuels that are treated by prescribed burning will penetrate the air.

Transportation

Both the road and trail portion of the Forest Transportation Development System Plan will be substantially complete by the end of the first decade. New road and trail construction substantially decreases in the subsequent decades, meaning that the Forest will quickly have a transportation system in place to support the other resource activities to be implemented in the Forest Plan. Reconstruction will hold steady at 50-60 miles of road and 16-18 miles of trail per year throughout the planning horizon.

The future condition of the Eldorado from a transportation management standpoint is that it will be densely roaded in areas scheduled for intensive market activities such as timber harvesting and developed recreation. Other large blocks of land having a dispersed recreation, watershed, wildlife, or research emphasis will either be sparsely roaded or unroaded.

Trails normally support dispersed recreation use in these same less densely roaded areas, except that short loop trails are earmarked for construction in the General Forest Zone. These loop trails will be designed to complement intensive management practices that normally take place adjacent to them.

Facilities

Efforts will be taken to reduce the future number of administrative sites that are now needed to support projected management activities.

The number of dams and reservoirs in non-Forest Service ownership will increase in proportion to hydroelectric power development on the Forest. Placement of these facilities will not only create striking changes in the future landscape but provide many other amenity benefits for recreationists. The increase in dams and reservoirs will cause significant social, economic, and environmental impacts on the forest and result in irreversible commitment of resources on the Eldorado.

Research

Future Research activities on the Eldorado will include measurement of ecological factors in the candidate Peavine and Station Creek RNA's and in the Middle Mountain and Snow Canyon RNA's if additional

analysis results in their recommendation. These areas will serve as benchmarks for physical and environmental change over time. Non-research use of these areas will be discouraged and mineral entry will be withdrawn upon official designation.

The Institute of Forest Genetics will conduct research in conifer characteristics, cross breeding, and experimental plantings on the three sites it presently manages.

D. Management Emphasis

The Eldorado National Forest land base is classified into six major Emphasis Zones. Emphasis Zones are geographic locations where similar combinations of resource opportunities and land use potential exist simultaneously. These zones are not normally located in one spot. Usually they are found in multiple numbers scattered throughout the Forest and vary widely in physical dimensions.

Each Emphasis Zone stresses a predominant management theme subject to treatment by integrated, compatible management prescriptions and practices. Each Emphasis Zone is distinctly different in theme and reaction to treatment from surrounding Emphasis Zones. Six different colors are used to identify Emphasis Zones on the map. Corresponding colors are used in the text of the plan to group the direction pages for the six Emphasis Zones, as follows:



ORANGE

ZONE I - Designated

Lands set aside by legal or official designation.

Congress designates Wilderness and Wild and Scenic Rivers. The Chief of the Forest Service designates Research Natural Areas. The Regional Forester classifies Special Areas under delegated authority from the Chief. Lands in dedicated status must be managed strictly according to federal laws, regulations, or policy that apply to them.

Four areas of the Eldorado would have dual designation with Mokelumne Wilderness: (1) the Mokelumne Wild and Scenic River, 2,880 acres; (2) Snow Canyon Research Natural Area, 300 acres; (3) the Round Top Botanical/Geological Area, 3,156 acres; and (4) the Mokelumne Archeological District, 1920 acres.

If the Middle Mountain Research Natural Area is eventually designated, it will have dual designation with Desolation Wilderness.

YELLOW

ZONE II - High Country

Lands that are largely undeveloped, and in some cases, unroaded.

High Country lands occur in large tracts that are generally located above 6,000 feet of elevation and are characterized by natural crest-like Sierran landscapes. Lands in this status lend themselves to dispersed recreation. High Country produces forage for livestock grazing and provides diverse habitat for wildlife species. These lands, combined with upper elevation wilderness, retain the important Sierra Nevada snowpack.

The High Country Zone was categorized using the Forest Service Recreation Opportunity Spectrum (ROS) system. The four types of Management Areas within this Zone are: (1) Primitive, (2) Semiprimitive Nonmotorized, (3) Semiprimitive Motorized, (4) Roaded Natural.

RED

ZONE III - Developed

Lands with prior commitments that are managed to emphasize several kinds of developed uses.

There may be an established investment in buildings and facilities in the Developed Zone. Lands in this status include existing developed and potential recreation sites, such as campgrounds, ski areas, interpretive sites and administrative sites. Recreation facilities may be operated and maintained by the Forest Service, Special Use Permittee, Licensee, or Concessionaire. The Forest Nursery and Institute of Forest Genetics are also in the Developed Zone.

BROWN

ZONE IV - Wildlife

Lands managed to maintain viable populations of spotted owls and goshawks.

The habitats of these two sensitive species are treated to provide suitable nesting and foraging ground to perpetuate their existence. Lands in this status are intermingled with the General Forest Zone.

GREEN

ZONE V - General Forest

Lands that are most favorable for growth and harvest of commercial conifer species.

Lands in this status are the most intensively managed areas in the Forest. The widest range of activities and the most changes in the landscape occur in the General Forest Zone. Major tree species include sugar pine, ponderosa pine, Douglas-fir, white fir, and incense cedar. Brush fields, natural openings, oak woodlands, small meadows, and other grassy areas are routinely mixed with productive timber lands. Nonsuitable timber stands (less than 20 cubic feet per acre per year growth) are placed in a Maintenance Management Area within the General Forest Zone. Lands of high visual sensitivity are also located in the General Forest Zone. These visual corridors are in viewsheds that can be readily seen by visitors and that generally border major roads, trails, rivers, and developed recreation sites. Foreground and middleground areas viewed from the visual corridors are retained or partially retained in a natural condition.

The entire General Forest Zone is a heterogeneous mixture of several different Management Areas that are consistent with the timber emphasis.

BLUE

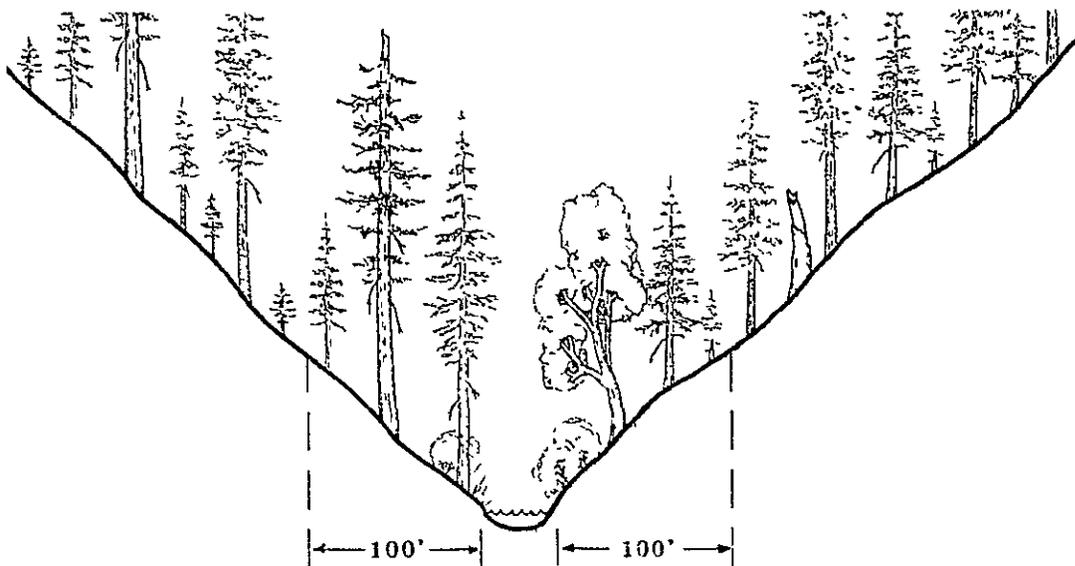
ZONE VI - Streamside Management

Lands that border lakes and streams.

Lands in this status include a 100-foot riparian strip on both sides of Class I, II, and III streams, and a 100-foot strip surrounding lakes and reservoirs. The riparian strip provides food, cover, and water for many dependent species of fish and wildlife.

The Streamside Management Zone is extended to wider limits than the riparian strip where needed to maintain the high quality of water currently yielded from the Forest. These extensions are variable land widths that are based on soil stability, percent slope, and stream class.

The Streamside Management Zone receives heavy recreation use because of the popularity of fishing and the natural visitor attraction to water.



E. Management Areas

Emphasis Zones are subdivided into Management Areas. Management Areas are numbered subunits or map cells of the Eldorado. A Management Area Prescription is applied to each of these cells. Management Area Prescriptions are made up of compatible sets of practices aimed at producing goods, services, and environmental effects.

Management Areas are composed of both Forest-wide and individual practices. Each practice is defined by Standards and Guidelines. National Forest land inside the boundary of the Forest is included in one of the following Management Areas listed in the following Table IV-2.

TABLE IV-2

ELDORADO MANAGEMENT AREAS

Zone	Management Area	Page Reference
I - Orange Designated	1 - Wilderness	4-122
	2 - Wild and Scenic River	4-130
	3 - Research Natural Area	4-137
	4 - Special Area	4-142
II - Yellow High Country	5 - Primitive	4-151
	6 - Semiprimitive Nonmotorized	4-155
	7 - Semiprimitive Motorized	4-160
	8 - Roaded Natural	4-166
III - Red Developed	9 - Existing Recreation	4-173
	10 - Potential Recreation	4-179
	11 - Existing Winter Sports	4-184
	12 - Potential Winter Sports	4-190
	13 - Private Sector Recreation	4-194
	14 - Administrative Sites	4-200
	15 - Placerville Nursery	4-205
	16 - Institute of Forest Genetics	4-209
IV - Brown Wildlife	18 - Spotted Owl	4-211
	19 - Goshawk	4-217
V - Green General Forest	20 - Visual Foreground Retention	4-221
	21 - Visual Foreground Partial Retention	4-229
	22 - Visual Middleground Retention	4-238
	23 - Visual Middleground Partial Retention	4-246
	24 - High Site Timber	4-254
	25 - Uneven-Aged Timber	4-262
	26 - Low Site Timber	4-271
	28 - Meadow Management	4-277
	29 - Maintenance	4-283
	VI - Blue Streamside	30 - Streamside Management Zone

F. Forest Practices

Forest practices are management actions that achieve the goals and objectives of the Plan. Practices are grouped by Program Elements.

Certain practices apply to the whole Forest, although they may not necessarily be employed simultaneously in every Management Area. These Forest-wide Practices are normally listed only once with the implication that their scope is broad and provides general direction. However, supplemental direction, when needed, is stated in the Standards and Guidelines for the separate Management Areas.

Other practices are individual. These practices are customized for the various Eldorado Management Areas, where their combined application leads to producing desired emphasis, outputs, and environmental effects. Individual practices may be repeated in several Management Areas but do not fit all cases as do the Forest-wide kind.

Practices involve planning, inventory, and physical actions. Monitoring and evaluation of project actions is handled separately in Chapter V of the Plan. The entire list of forest practices applicable to the Eldorado is summarized in Table IV-3. The criteria used to develop practices and a full definition of each one follows the summary. Forest-wide practices are marked by an asterisk next to their title.

TABLE IV-3

FOREST PRACTICES

<u>Practice Number</u>	<u>Title</u>	<u>Activity Code</u> ^{1/}
1	* Recreation Planning and Inventory	A01
2	* Recreation Opportunity Spectrum - Primitive	A02
3	* Recreation Opportunity Spectrum - Semiprimitive Nonmotorized	A02
4	* Recreation Opportunity Spectrum - Semiprimitive Motorized	A02
5	* Recreation Opportunity Spectrum - Roded Natural	A02
6	* Recreation Opportunity Spectrum - Rural	A02
8	Research Natural Areas	A08
9	* Cultural Resources Inventory and Evaluation	A03
10	* Cultural Resources Protection	A04
11	* Cultural Resources Enhancement	A04
12	Special Interest Area Investigations	G02
13	* Visual Resource Inventory and Planning	A02
14	* Visual Quality Objective - Preservation	A02
15	* Visual Quality Objective - Retention	A02

^{1/} Program Element activity codes are used in the ADVENT computer model to link practices to program budgets.

Practice Number	Title	Activity Code
16	* Visual Quality Objective - Partial Retention	A02
17	* Visual Quality Objective - Modification	A02
18	* Visual Quality Objective - Maximum Modification	A02
19	* Visual Resource Improvement	A02
20	Developed Recreation and Visitor Information Services Site Construction and Rehabilitation	A06
21	* Interpretive Services Planning	A01
22	* Interpretive Services Management	A07, P24
23	Installation and Construction of Interpretive Services not on Interpretive Service Sites	A06
24	Developed Recreation Site Management, Public Sector	A07, P24
25	Dispersed Recreation Management	A08, P24
26	* Open Off-Road Vehicle Management	A08
27	* Restricted Off-Road Vehicle Management	A08
28	* Closed Off-Road Vehicle Management	A08
29	Cross-Country Skiing	A08
30	Wild, Scenic or Recreation River Dispersed Recreation	A08
31	Wild, Scenic or Recreation River Study	A01
32	Recreation Management - Private and Other Public Sector	A07, P24
33	Wilderness Inventory and Planning	B01
34	Wilderness Area Management	B03, P24
35	* Fish and Wildlife Habitat Coordination	C01
36	Stream Fisheries Habitat Improvement and Maintenance - Structural Improvements	C03, C04
37	Stream Fisheries Habitat Improvements and Maintenance - Nonstructural Improvements	C02
38	Lake Fisheries Habitat Improvement and Maintenance - Structural Improvements	C03, C04
39	Lake Fisheries Habitat Improvement and Maintenance - Nonstructural Improvements	C02
40	Wetlands Habitat Improvement and Maintenance	C03, C04
41	* Habitat Improvement - Early/Mid Successional Stage	C02
42	* Habitat Improvement - Old Growth	C02
43	Habitat Improvement - Vegetative Enhancement	C02
44	* Snag and Down Log Management	C02
45	* Hardwood Management	C02
46	* Meadow Vegetative Management	C02, C03
47	Structural Wildlife Habitat Improvement and Maintenance	C03, C04
48	* Recovery Species Administrative Management	C01
49	* Sensitive Plants Interim and Recovery Management	C03
50	* Administration, Inventory and Coordination - Fish, Wildlife and Sensitive Plants	C01
51	* Range Planning and Analysis	D01

Practice Number	Title	Activity Code
52	Range Management	D07
53	Range Improvement - Nonstructural	D03, D04
54	Range Improvement - Structural	D05
55	Range Improvement - Structural Maintenance	D06
56	* Timber Program Administration	E00, E06, E07, P24
57	* Compartment Examination	E03
58	Clearcut Cutting Method	E01
59	Shelterwood Cutting Method - Seed Cut	E01
60	Shelterwood Cutting Method - Removal Cut	E01
61	Intermediate Cutting Method - Sanitation and Salvage	E02
62	Intermediate Cutting Method - Thinning	E02
63	Intermediate Cutting Method - Predominant Removal	E02
64	Selection Cutting Method	E01
65	Special Cutting - Streamside Management Zone	E02
66	Special Cutting - Other	E02
67	* Snowpack Cutting Method	E02
68	Low Site Stand Maintenance	E02
69	* Ground Based Harvest System	E01, E02
70	* Cable Harvest System	E01, E02
71	* Skyline Harvest System	E01, E02
72	* Special Harvest System	E01, E02
73	* Artificial Stand Reestablishment	E04
74	* Natural Stand Reestablishment	E04
75	Tree Improvement	E09
76	Nursery	E08
77	Release and Weeding	E05
78	Precommercial Thinning	E05
79	* Fuelwood	E07
80	Christmas Tree and Miscellaneous Forest Products	E07
81	* Water Yield Improvement	F03
82	* Runoff Regulation	F03
83	* Watershed Maintenance and Rehabilitation	F03
84	* Water Resource Management	F04
85	* Water Rights Use/Management	F07
86	* Soil Support Services	F01, F02
87	* Soil Resource Maintenance and Improvement	F03
88	* Minerals Management - Locatables	G03, G05, G06
89	* Minerals Management - Leasables	G03, G05, G06
90	* Minerals Management - Mineral Materials	G06
91	* Geologic Inventory and Evaluation	G01
92	* Geologic Technical Investigations	G02

Practice Number	Title	Activity Code
93	* Withdrawals and Revocations	G01
94	* Land Adjustments	J12, J13, J15, J16, J17
95	* Acquisition of Rights-of-Way	J18
96	* Special Use Management - Nonrecreation	J01
97	* Right-of-Way Grants - Roads and Trails	J18
98	* Power Related Licenses and Permits	J03
99	* Property Boundary Location and Marking	J06
100	* Timber Access Road Development - Construction and Reconstruction	L01 to L14
101	* General Resource Access Road Development - Construction and Reconstruction	L01 to L13
102	* Transportation Management - Roads Open	L19
103	* Transportation Management - Roads Regulated	L19
104	* Transportation Management - Roads Closed	L19
105	* Transportation Management - Road Obliteration	L19
106	* Trail Construction and Reconstruction	L21 to L24
107	* Trail Construction and Reconstruction - Special Purpose	L21 to L24
108	* Transportation Management - Trails	L20
109	Fire, Administration and Other (FA&O) Facility Construction and Reconstruction	L24
110	Fire, Administration and Other (FA&O) Facility Operation and Maintenance	L25
111	* Fire Management	P01 to P10, P24
112	Activity Fuels Management	P11
113	Prescriptive Fire Management	P14
114	Natural Fuels Management	P12, P10, P14
115	* Law Enforcement	P24, P25
116	* Integrated Pest Management	P35
117	* Air Quality Management	P38

1. Criteria

The Eldorado Interdisciplinary Team prepared the practices for the Forest Plan using the following criteria:

(a) Forest practices will address resource use and development opportunities to provide a link to issues.

(b) Forest practices will be written in sufficient detail to set long-range direction in the Forest Plan for each resource activity or land assignment.

(c) Forest practices will be technically sound, biologically feasible, and compatible with other practices when applied concurrently in the same Management Area prescription.

(d) Forest practices will be written in accordance with NFMA regulations.

(e) Forest practices, when possible, will be tied to Management Information Handbook (MIH) activity code definitions (FSH 1309.11a) to provide continuity with future program budgeting.

2. Descriptions

A brief situation statement for each Program Element precedes the set of practices included in that element.

Each practice is headed by number, title, and MIH Activity Code, followed by a description of the action, measure, or land treatment involved. Forest-wide practices are once again identified by a star.

Practices

Element A - Recreation

The Forest recreation management program is designed to provide outdoor recreation opportunities for visitors to the Eldorado. This element includes all practices necessary to protect, administer, and develop recreational opportunities so that the Forest contributes its appropriate share of recreation in a manner compatible with other resource values. It also covers protection, management, and development of trails for public access to recreation opportunities.

Recreation management provides public sector facilities (such as campgrounds, picnic sites, and trails) and permitted private sector facilities (such as ski areas). It promotes recreational development, which complements local, regional, and national needs and is responsive to energy concerns. A broad spectrum of recreational opportunities is maintained, both dispersed and developed. Guidance and expertise in the management of visual resources is given, and a continuing program of interpretive services is maintained. A further responsibility involves cultural resources, which are protected by law and are recognized as an integral part of the total land and resource management program.

Practice Number	Title	Activity Code
1	* <u>Recreation Planning and Inventory</u>	A01
	<p>Recreation Inventory Management (RIM) sampling and reports. Recreation planning and inventory. Off-road vehicle (ORV) use planning and inventory. Officially designated area (except Wilderness) planning and inventory, including National Recreation Areas, National Recreation Trails, Wild and Scenic Rivers, and many Special Areas of botanical, historic or scenic interest.</p>	
2	* <u>Recreation Opportunity Spectrum - Primitive</u>	A02
	<p>Areas managed to meet the ROS objective of Primitive, characterized by an essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other area users is minimal. The area is managed to be essentially free from evidence of man-induced restrictions and controls. <u>Motorized vehicle use is not permitted except where Forest Supervisor approval of an escaped fire situation analysis authorizes entry.</u></p>	
3	* <u>Recreation Opportunity Spectrum - Semiprimitive Nonmotorized</u>	A02
	<p>Areas managed to meet the ROS objective of Semiprimitive Nonmotorized, characterized by a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but they are subtle. Permanent motorized vehicle use is not permitted. Temporary vehicle use may be authorized based on special needs, but only for the duration of the project, and where roads are then obliterated. Examples of special needs are insect salvage, vehicle and equipment access supported by an escaped fire situation analysis, and placement or removal of facilities under Special Use Permit.</p>	

Practice Number	Title	Activity Code
4	* <u>Recreation Opportunity Spectrum - Semi-primitive Motorized</u>	A02
	<p>Areas managed to meet the ROS objective of Semi-primitive Motorized, characterized by a predominantly natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but they are subtle. <u>Motorized vehicle use is permitted</u>, and access roads to facilitate resource management shall be maintenance level I and II local roads.</p>	
5	* <u>Recreation Opportunity Spectrum - Roaded Natural</u>	A02
	<p>Areas managed to meet the ROS objective of Roaded Natural, characterized by <u>predominantly</u> natural or natural appearing environments with moderate evidences of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate but with evidence of other users prevalent. Resource modification and utilization practices are evident but harmonize with the natural environment. <u>Conventional motorized use is provided in construction standards and design of road facilities.</u></p>	
6	* <u>Recreation Opportunity Spectrum - Rural</u>	A02
	<p>Areas managed to meet the ROS objective of Rural, characterized by substantially modified natural environment. Resource modification and utilization practices are used primarily to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sound of man are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate densities are provided far away from developed sites. Facilities for intensified motorized use and parking are available.</p>	

Practice Number	Title	Activity Code
8	<u>Research Natural Areas</u>	A08
	Management of designated Research Natural Areas to protect their undisturbed ecosystems for future research and observation of the specific plant associations for which they were nominated. Unit of measure is acres.	
9	* <u>Cultural Resources Inventory and Evaluation</u>	A03
	Cultural resource inventories and cultural resource evaluations of historical districts, sites, buildings, structures, objects, or areas that may have historical, cultural, or scientific value.	
10	* <u>Cultural Resources Protection</u>	A04
	Physical protection, public contact, signing, or other activities associated with protection of properties. Includes review, processing, and administration of cultural resource use permits. Can occur on only those National Forest lands containing significant cultural sites. Unit of measure is properties.	
11	* <u>Cultural Resources Enhancement</u>	A04
	Analysis, and intensive research, of cultural resource properties for public interpretation or scientific or ethnic use. Can occur on only those National Forest lands containing significant cultural sites. Unit of measure is properties.	
12	<u>Special Interest Area Investigations</u>	G02
	Examination of areas that possess geological, paleontological, botanical, scenic, zoological, archaeological, historical, and other features that warrant protection through Special Area classification. Unit of measure is acres.	

Practice Number	Title	Activity Code
13	* <u>Visual Resource Inventory and Planning</u>	A02
	<p>Developing and administering plans for visual resource projects. Includes plans prepared for resource improvement, special studies, demonstration areas, and other activities. Also covers the development or participation in project environmental analyses and rehabilitation program plans. Unit of measure is number of planned acres.</p> <p><u>Visual Quality Inventory</u>: Determination of inherent visual quality (variety classes) and sensitivity levels for the purpose of developing basic data and interpretations. Includes the development of inventory Visual Quality levels.</p> <p><u>Visual Absorption Capacity</u>: Inventory of visual absorption capacity for the purpose of developing basic data on interpretations.</p> <p><u>Existing Visual Condition</u>: Inventory of existing visual condition of the landscape for the purpose of developing basic data and interpretation. Provides a base from which to measure change. Unit of measure is acres.</p>	
14	* <u>Visual Quality Objective - Preservation</u>	A02
	<p>Areas managed to meet the Visual Quality Objective of Preservation. Allows ecological changes only. Management activities, except for very low visual impact recreation facilities, are prohibited. Unit of measure is acres.</p>	
15	* <u>Visual Quality Objective - Retention</u>	A02
	<p>Areas managed to meet the Visual Quality Objective of Retention. Provides for management activities, that are not visually evident. Activities may only repeat form, line, color, and texture, which are frequently found in the characteristic landscape. Changes in the qualities of size, amount, intensity, direction, and pattern should not be evident. Unit of measure is acres.</p>	

Practice Number	Title	Activity Code
16	* <u>Visual Quality Objective - Partial Retention</u>	A02
	<p>Areas managed to meet the Visual Quality Objective of Partial Retention. Management activities remain visually subordinate to the characteristic landscape. Activities may repeat form, line, color, or texture common to the characteristic landscape, and may also introduce form, line, color, or texture, which are found infrequently or not at all in the characteristic landscape. Unit of measure is acres.</p>	
17	* <u>Visual Quality Objective - Modification</u>	A02
	<p>Areas managed to meet the Visual Quality Objective of Modification. Management activities may visually dominate the original characteristic landscape. However, activities of vegetative and land form alteration must borrow from naturally established form, line, color, or texture so completely and at such a scale that its visual characteristics are those of natural occurrences within the surrounding area or character type. Unit of measure is acres.</p>	
18	* <u>Visual Quality Objective - Maximum Modification</u>	A02
	<p>Areas managed to meet the Visual Quality Objective of Maximum Modification. Management activities of vegetative and landform alterations may dominate the characteristic landscape. However, when viewed as background, the visual characteristics must be those of natural occurrences within the surrounding area or character type. When viewed as foreground or middleground, they may not appear to completely borrow from naturally established form, line, color, or texture. Alterations may also be out of scale or contain detail that is incongruent with natural occurrences as seen in foreground or middleground. Unit of measure is acres.</p>	
19	* <u>Visual Resource Improvement</u>	A05
	<p>Activities carried out on visual rehabilitation to restore facilities, lands, and resources to the visual quality objectives adopted in the approved Forest Plan. Unit of measure is acres.</p>	

Practice Number	Title	Activity Code
20	<u>Developed Recreation and Visitor Information Services Site Construction and Rehabilitation</u>	A06
	Feasibility studies and plans, preconstruction, contract administration, and construction and rehabilitation (major cost facility investment) of inventoried sites. The unit of work is the capacity of the completed site or additions of existing sites.	
21	* <u>Interpretive Services Planning</u>	A01
	Preparation and review of interpretive service plans. Includes interpretive plans, and proposals for interpretive service projects not classified as construction or reconstruction of facilities under Practice 20.	
22	* <u>Interpretive Services Management</u>	A07, P24
	Administration, operation, and maintenance of Interpretive Services at:	
	a. Standard Management (to established standards and management objectives).	
	b. Low Standard Management (below established standards and management objectives).	
	Activity units are persons-at-one-time (PAOT); output units are recreation visitor days (RVD).	
23	<u>Installation and Construction of Interpretive Services Facilities not on Interpretive Services Sites</u>	A06
	Labor and materials for installation or construction of interpretive facilities not located on formal VIS sites. Planned work and costs should approximate needs shown on current Recreation Inventory Management (RIM) Facility Condition Inventory. Activity units are sites; output units are recreation visitor days (RVD).	

Practice Number	Title	Activity Code
24	<u>Developed Recreation Site Management, Public Sector</u>	A07, P24
	Administration, operation, and maintenance of developed sites at:	
	a. Standard Management (to established standards and management objectives).	
	b. Low Standard Management (below established standards and management objectives).	
	Activity units are persons-at-one-time (PAOT); output units are recreation visitor days (RVD).	
25	<u>Dispersed Recreation Management</u>	A08, P24
	Management of areas for dispersed recreation that are not designated Wilderness or listed as developed sites in the RIM system. Includes administration, operation, and maintenance. Activities will make provision for protecting other resources by limiting facilities and discouraging concentrated use in sensitive areas such as meadows, old-growth timber, and identified threatened and endangered or sensitive species habitat. Activity units are managed acres; output units are recreation visitor days (RVD).	
26	* <u>Open Off-Road Vehicle Management</u>	A08
	Off-road vehicle snow and land travel within areas designated open. Mountain bicycle use is also covered by this practice. Modification to ORV use will be made, as needed during the life of the Plan, based on such criteria as changing use patterns, changes in equipment and technology, and evidence of resource damage. Activity units are managed acres; output units are recreation visitor days (RVD)	
27	* <u>Restricted Off-Road Vehicle Management</u>	A08
	<u>Off-road vehicle use restricted to designated routes for summer or winter periods or both, or use restricted by time of year.</u> Mountain bicycle use is also covered by this practice. Modification to ORV use will be made, as needed during the life of the	

Practice Number	Title	Activity Code
	<u>Plan, based on such criteria as changing use patterns, changes in equipment and technology, and evidence of resource damage. Activity units are managed acres; output units are recreation visitor days (RVD).</u>	
28	* <u>Closed Off-Road Vehicle Management</u>	A08
	No off-road vehicle use allowed. Mountain bicycle use is also covered by this practice. Activity units are managed acres.	
29	<u>Cross-Country Skiing</u>	A08
	Skiing cross-country outside of developed sites. The support facilities needed are developed parking (kept clear of snow), ski huts or shelters, and sanitation. Provision of such support facilities by commercial concessionaire is encouraged. Activity units are managed acres; output units are Recreation Visitor Days (RVD).	
30	<u>Wild, Scenic, or Recreation River Dispersed Recreation</u>	A08
	Management of dispersed recreation inside designated Wild, Scenic, or Recreation river boundaries. Activity units are managed acres; output units are recreation visitor days (RVD).	
31	<u>Wild, Scenic, or Recreation River Study</u>	A01
	Congressional and administrative studies and nominations for candidate Wild, Scenic, or Recreation Rivers. National Park Service, State, and private coordination for non-National Forest lands impacted by nominations. Unit of measure is miles of river studies.	
32	<u>Recreation Management - Private and Other Public Sector</u>	A07 P24
	Administration of recreation-related permitted use of National Forest System lands on developed recreation sites. Includes downhill skiing and resorts. Activity units are persons-at-one-time (PAOT); output units are Recreation Visitor Days (RVD).	

Element B - Wilderness

Lands are designated wilderness to preserve their unique values for current and future generations. Activities such as dispersed recreation, grazing, watershed protection, and some mining will continue as long as the wilderness resource is not impaired. Desolation Wilderness and Mokelumne Wilderness have been designated by Congress. Caples Creek Further Planning Area may be considered by the Eldorado for inclusion in the National Wilderness System.

Practice Number	Title	Activity Code
33	<u>Wilderness Inventory and Planning</u>	B01, B02
	Wilderness inventories, preparation, and review of wilderness management plans for new and existing wilderness. Includes environmental impact statements and Congressional recommendations for candidate areas. Unit of measure is acres.	
34	<u>Wilderness Area Management</u>	B03, P24
	Management of the wilderness resource and its use. Administration, operation, and maintenance. Activity units are managed acres; output units are recreation visitor days (RVD) for dispersed recreation, hunting, and fishing.	

Element C - Fish and Wildlife

Fish and wildlife management is intended to maintain and enhance plant and animal communities (including threatened and endangered species) in accordance with federal law, regional guidelines, and Forest needs. State fish and wildlife goals and objectives are incorporated through coordination with the California Department of Fish and Game.

Most opportunities for improvement of fish and wildlife habitat on the Eldorado result primarily from multiple use coordination with other management practices such as timber harvest, hydroelectric power production, water supply and flood control development, prescribed burning, and range management.

Fish and wildlife management practices are exercised through: (1) direct habitat improvement projects financed by Protection and Maintenance (P&M) dollars and Knudsen-Vandenburg (K-V) funds collected

from timber sale receipts, (2) multiple use coordination with other management functions, and (3) projects funded from other government or private sources such as county fish and game fine collections or the State Renewable Resource Development Fund.

Practice Number	Title	Activity Code
35	* <u>Fish and Wildlife Habitat Coordination</u>	C01
	Wildlife, fish, or plant habitat improvement and maintenance carried out by other resource activities. Treatment is considered an improvement if the net effect of the activity results in meeting a specified objective for wildlife, fish, or sensitive plants. Treatment is considered maintenance when such work, based upon biologist input, maintains existing habitat conditions or mitigates habitat losses. Much of the coordination will be accomplished through interactions with functional activities such as timber sales, fuels management, range improvement, access road location, and recreation facility design.	
36	<u>Stream Fisheries Habitat Improvement and Maintenance - Structural Improvements</u>	C03, C04
	Activities designed to enhance cold water trout fisheries through structural treatments and maintenance. Structural improvements include watershed stabilization through streamside fencing, instream cover improvements, fishways and fish screens, construction or removal of migration barriers, removal or relocation of roads, stream bank stabilization, control of water level fluctuation, and construction of water bars and culverts to retard or direct water runoff.	
37	<u>Stream Fisheries Habitat Improvement - Nonstructural Improvements</u>	C02
	Activities designed to enhance cold water trout fisheries through nonstructural treatments. Non-structural improvements include improving quality of spawning gravels, removal of stream barriers, control of fish or aquatic plant populations, control of human access and fishing pressure, and enhancement of riparian vegetation.	

Practice Number	Title	Activity Code
38	<u>Lake Fisheries Habitat Improvement and Maintenance - Structural Improvements</u>	C03, C04
	Activities designed to enhance warm water and cold water lake fisheries through structural treatments and maintenance. Structural improvements include fish cover developments, shoreline stabilization, migration barriers, and structures to control water levels in lakes.	
39	<u>Lake Fisheries Habitat Improvement - Nonstructural Improvements</u>	C02
	Activities designed to enhance warm water and cold water lake fisheries through nonstructural treatments. Nonstructural improvements include fish population control, aquatic plant control, enhancement of riparian vegetation, and lake fertilization.	
40	<u>Wetlands Habitat Improvement and Maintenance</u>	C03, C04
	Actions needed for intensive management to improve or maintain habitat for wetland species such as waterfowl, shorebirds, and predators upon these species such as bald eagle and peregrine falcon. Increase targeted wetland species through habitat management; increase overall forest habitat diversity. Improvement actions include construction of potholes and shallow marshes, development of vegetation for forage and cover, construction of nest boxes and nest mounds, information and education signing, human access control, and control of grazing.	
41	* <u>Habitat Improvement - Early/Mid Successional Stage</u>	C02
	Manipulation of vegetation for the primary purpose of improving early/mid successional wildlife habitat. Featured species will be identified at the project level and site-specific implementation such as timing, extent, and location will be tailored to improve the habitat capability of featured species. Activities that produce early successional stages of forest, woodland, and chaparral. Actions include	

Practice Number	Title	Activity Code
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silvicultural treatment, prescribed burning, mechanical crushing, pruning, and approved application of herbicides. Featured species are deer, mountain quail, California quail, western bluebird, and other small game and nongame species.

42 * Habitat Improvement - Old Growth C02

Manipulation of vegetation for the primary purpose of improving old growth wildlife habitat. Activities that maintain old growth forest habitat in a condition suitable for featured species. Actions include silvicultural treatment to maintain desired canopy closure or structure, prescribed burning, human access control, and closure or relocation of roads. Depending on requirements of featured species, uneven-aged or all-aged conditions may be maintained. Featured species are pileated woodpecker, flying squirrels, goshawk, spotted owl, pine marten, and others.

43 Habitat Improvement - Vegetation Enhancement C02

Activities to enhance productivity of forage and cover plants for wildlife, by seeding, planting, and fertilizing. Featured species are black bear, deer, mountain quail, California quail, and other small game and nongame species.

44 * Snag and Down Log Management C02

Activities designed to meet Regional standards and guidelines for snags and down logs. Activities designed to provide more intensive levels of snag and down log management to improve the habitat capability of featured species. Actions include inventory and survey, designation of cull trees as future snags and logs, girdling or killing cull trees to provide snags, topping cull trees to provide flat-topped snags where suitable. Informational and educational signing. Control of human access and woodcutting activities. Featured species are bald eagle, pileated woodpecker, flying squirrels, black bear, deer, goshawk, spotted owl, western bluebird, pine marten, great gray owl, and others.

Practice Number	Title	Activity Code
45	* <u>Hardwood Management</u>	C02
	Activities designed to manipulate native hardwood species to improve resource values, primarily wild-life and vegetative diversity. Desired conditions are attained in the carrying out of other activities, and by specific hardwood management projects such as regeneration, prescribed burning, and harvest for fuelwood. Featured species are deer, band-tailed pigeon, black bear, mountain quail and tree squirrels.	
46	* <u>Meadow Vegetation Management</u>	C02, C03
	Activities designed to improve the habitat capability of meadow-associated wildlife species through management of vegetation. Activities may include silvicultural treatment, thinning and pruning, regeneration of aspen stands, prescribed burning, planting, seeding, fertilizing, and controlling of livestock and human access. Compatible practices involving structural improvements may be necessary. Featured species are mule deer, great gray owl, black bear, trout, willow flycatcher, and other small game and nongame species.	
47	<u>Structural Wildlife Habitat Improvement and Maintenance</u>	C03, C04
	Activities designed to improve the habitat capability of wildlife species through structural improvements not covered in stream, lake, meadow, or wetlands habitat improvement. Actions include nest structures, den developments, water developments (small watering structures to provide drinking water for wildlife), wildlife cover developments, and management fencing. Featured species are peregrine falcon, mule deer, western bluebird, mountain quail, California quail, and other small game and nongame species.	
48	* <u>Recovery Species Administrative Management</u>	C01
	Activities designed to protect or improve habitat for endangered, threatened, rare, and sensitive species through administrative measures. Actions include coordination with appropriate agencies, inventories and surveys, restriction of human access	

Practice Number	Title	Activity Code
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to critical or essential habitat through road closures, special area designation, and timing of timber harvest and other management activities. Species affected are peregrine falcon, bald eagle, golden eagle, pine marten, willow flycatcher, goshawk, great gray owl, and spotted owl. This practice will take precedence over other wildlife practices.

49 * Sensitive Plants Interim and Recovery Management C03

Activities designed to protect and restore populations of endangered, threatened, and sensitive plants. The interim phase consists of input to planning and project coordination, formal and informal consultation, synecological studies, collection control, population monitoring, and botanical investigations. The recovery phase consists of species management guides, habitat management and improvement, land exchanges and acquisition, artificial propagation or reintroductions, and population evaluation. This practice will take precedence over other wildlife practices.

50 * Administration, Inventory, and Coordination - Fish, Wildlife, and Sensitive Plants C01

Activities designed to meet direction in the Regional Guide, legal requirements and planning direction for fish, wildlife, and sensitive plants. Actions include inventories, studies, surveys, prescriptions and plans, and coordination with appropriate agencies and other groups.

Element D - Range

Available forage for domestic livestock on the Eldorado is comprised of permanent and transitory range. Permanent range consists of high mountain meadows and other suitable forage types generally above 6,000 feet in elevation. Transitory range is created as a direct result of management practices, primarily timber harvesting, or as a result of wildfire. Transitory range mainly occurs in the commercial timber producing zone above 3,500 feet in elevation.

Range management practices are intended to maintain and enhance forage and to provide for red meat production and give stability to the local livestock industry. Results are achieved by the management of existing permits, cooperation with range permittees and other agencies and landowners, and development and maintenance.

Practice Number	Title	Activity Code
51	* <u>Range Planning and Analysis</u>	D01
	<p>Preparation of range allotment plans and other plans involving the management of range resources will be based on 10-year periods. These plans will determine specific objectives and alternatives to meet land, resource, watershed, wildlife, and livestock operator needs. The systematic analysis of range will primarily be conducted through condition and trend plot evaluation to update old analysis data. New data would be collected only to determine significant changes in forage availability from watershed conditions, major type conversion or change in class of livestock. Project or allotment-specific environmental documentation is included in this practice and will incorporate interdisciplinary review. Unit of measure is number of allotment plans.</p>	
52	<u>Range Management</u>	D07
	<p>Administering the range resource. Determining readiness, production, utilization, and capacity. Administering grazing permits, including compliance, grazing applications, issuing and validating permits, and working with the livestock operator in the preparation of annual operating plans. Involves coordination and agreements with other agencies, groups, and landholders in coordinated resource plans and maintaining existing plans and agreements. Out-put measure is number of permitted animal unit months (AUM).</p>	
53	<u>Range Improvement - Nonstructural</u>	D03, D04
	<p>Treatment of competing vegetative types such as timber and brush or certain undesirable weeds to improve forage production. Treatment of existing forage-producing sites to enhance production and increase animal unit months. Measures will be proposed through the environmental analysis process to ensure maintenance or improvement of watershed and wildlife conditions in addition to range forage. Only small scale non-site-disturbing activities such as fertilizing, seeding, and spot herbicide application would be compatible with a Visual Quality Objective of Preservation and a Recreation Opportunity Spectrum class of Primitive</p>	

categories of wild and scenic river. Suitability means that the stands are physically adaptable to long-term timber management. Timber producing lands are classified into five major forest types: ponderosa pine, mixed conifer, true fir, subalpine, and hardwoods.

Ponderosa pine and mixed conifer types generally occur below 5,500 feet elevation. Hardwoods, in pure and mixed stands, occur throughout the entire forest; however, they are primarily significant within the mixed conifer type. True fir is found in the higher elevations above the mixed conifer type. The subalpine type is intermingled within the true fir at the upper elevations.

Timber management practices maintain or increase the optimum yield of forest products while maintaining or improving other basic resource values. They maintain or improve genetic diversity, product utilization standards, plant and animal community diversity, biomass recovery, and local fuelwood supplies. Treatments are harvesting, reforestation, and stand improvement under the principles of sustained yield, forest regulation, and multiple use. They are consistent with NFMA regulations, various sections of the Forest Service Manual, and the Regional Guide.

Practice Number	Title	Activity Code
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56	* <u>Timber Program Administration</u>	EOO, EO6, EO7, P24
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Administrative activities to protect, utilize, improve, inventory, and evaluate the timber resource. Examples are timber management plans and inventories, stand examinations and prescriptions, timber sale preparation and administration, reforestation and timber stand improvement project preparation and administration, management of the tree improvement program, and preparation of environmental documents.

57	* <u>Compartment Examination</u>	EO3
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Gathering and analyzing resource information on a compartment basis for use in planning projects. Periodic intensive inventory is supplemented with the ongoing assembling and filing of information, which is obtained incidental to other activities.

This practice applies to all lands except wilderness. Unit of measure for accomplishment of completed inventory and analysis is acres in the compartment.

Practice Number	Title	Activity Code
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58 Clearcut Cutting Method E01

Removal of all merchantable commercial trees within a stand in one operation. The objective of this method is to establish a new, fully stocked stand. Site preparation with planting or seeding and the saving of advanced regeneration are methods to accomplish the desired full stocking on areas clearcut. This method includes all types of clearcuts - stand, patch, and strip. New stands created are normally 5 to 30 acres in size with maximums up to 40 acres.

This cutting method is applicable to mixed conifer, ponderosa pine, and red fir forest types. It will be used in stands that have reached the calculated rotation age or in stands that are understocked and growing poorly. The unit of measure for timber offered is thousand board feet (MBF). The unit of measure for accountability is acres clearcut.

59 Shelterwood Cutting Method + Seed Cut E01

Removal of a portion of a stand to open the canopy and create space for regeneration of desirable species while providing a shelter for seedlings during establishment. The stand is generally regenerated naturally. Site preparation is performed. Artificial regeneration is required if the stand has not naturally regenerated within 5 years of harvesting. Stand size created is the same as described under the clearcutting method.

This cutting method is applicable for all forest types. This method will normally be used in stands that have passed rotation age for the forest type. It will usually be applied in well-stocked stands that have sufficient number of wind-firm, seed-producing, relatively defect-free trees of desired species. The unit of measure for timber offered is thousand board feet (MBF). The unit of measure for accountability is acres harvested.

Practice Number	Title	Activity Code
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60 Shelterwood Cutting Method - Removal Cut E01

Removal of all merchantable trees after successful establishment of regeneration under a seed step of the shelterwood cutting method. The overstory trees are removed as soon as possible after satisfactory regeneration of desired species is established.

This cutting method applies to all forest types that have fewer than approximately 15 merchantable trees per acre and have established regeneration of desirable species. The unit of measure for timber offered is thousand board feet (MBF). The unit of measure for accountability is acres harvested.

61 Intermediate Cutting Method - Sanitation and Salvage E02

Harvesting in even-aged stands to maintain or improve net growth until the stand is regenerated. This is accomplished by removing trees that have died or are likely to die before the next harvest entry. This practice includes sanitation and salvage cutting as described in Practice of Silviculture, Seventh Edition, by Smith. There are no minimum or maximum size treatment areas. This cutting method applies to all stands where the opportunities for sanitation and salvage exist. The unit of measure for timber offered is thousand board feet (MBF). The unit of measure for accountability is acres harvested.

62 Intermediate Cutting Method - Thinning E02

Periodic removal of trees in stands of less than rotation age to reduce stocking to a point where it will grow back to 90 percent of normal (as indicated in yield tables) within a specified time period. There is no minimum or maximum treatment area size.

This cutting method applies to stands on all forest types which carry stocking in excess of desired amounts. The unit of measure for accountability is acres harvested.

Practice Number	Title	Activity Code
63	<u>Intermediate Cutting Method - Predominant Removal</u>	E02
	<p>Removal of all trees over rotation age from a stand that is composed mostly of trees between 50 and 100 years of age with scattered over-rotation-aged trees. The resulting stand is well-stocked and essentially evenaged. Minimum stand size is five acres; maximum size for prescription purposes is 75 acres.</p> <p>This cutting method applies to all forest types. The unit of measure for timber offered is thousand board feet (MBF). The unit of measure for accountability is acres harvested.</p>	
64	<u>Selection Cutting Method</u>	E01
	<p>Cutting trees with the objective of producing uneven-aged stands with regeneration of desirable species. Orderly growth and development of trees throughout a range of diameter classes with a continuous yield of forest products. Trees are harvested singly or in small groups. Each harvest entry is designed to create a desired tree diameter distribution.</p> <p>This type of cutting is theoretically possible on all forest types. The most probable application is to stands with desired species having similar shade tolerances. The unit of measure for accountability is acres.</p>	
65	<u>Special Cutting - Streamside Management Zone</u>	E02
	<p>Removal of trees within a Streamside Management Zone to realize timber yields. Emphasis is the protection of water quality and riparian habitat. The number and classes of trees removed depends upon the characteristics of the existing vegetation, stream class, and stream channel characteristics.</p> <p>This cutting applies to all forest types within the Streamside Management Zone. The unit of measure for timber offered is thousand board feet (MBF). The unit of measure for accountability is acres harvested.</p>	

Practice Number	Title	Activity Code
66	<u>Special Cutting - Other</u>	E02
	<p>Removal of trees designated to realize timber yields while maintaining or improving other resource objectives. This can include cuttings and slash removal necessary in such areas as developed recreation sites, administrative sites, rights-of-way, and wildlife habitats for featured species. It also covers sanitation and salvage cutting on lands not suitable for timber production.</p>	
67	* <u>Snowpack Cutting Method</u>	E02
	<p>Cutting designed to increase the volume of useable water yield by removal of groups of trees in such size, shape, and orientation to increase snow accumulation and retard snow melt. Groups are generally one-half to two acres in size and coordinated with a permanent skid road system to facilitate removal of the groups harvested in each entry. Groups should be located to take advantage of stand conditions and shading, and consideration should be given to the next two entries.</p> <p>This cutting method applies to those true fir stands above 6,000 feet that are sufficiently dense to provide shade, which is effective in delaying snow melt in the cut openings. The unit of measure for timber offered is thousand board feet (MBF). The unit of measure for accountability is acres harvested.</p>	
68	<u>Low Site Stand Maintenance</u>	E02
	<p>Cutting in stands on low sites, usually Dunning Site IV and poorer, where regeneration of even-aged stands is biologically impractical. Individual trees or groups are removed to maintain stand vigor, reduce mortality, and provide conditions that will result in the perpetuation of the stand by natural regeneration. Clearcutting and shelterwood cutting may be practiced where harvest units can be regenerated within five years and where long-term soil productivity can be maintained. Minimum stand size is five acres; maximum size is unlimited.</p>	

Practice Number	Title	Activity Code
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Commercial forest types, which generally occur on these low sites, are ponderosa pine and mixed conifer. The unit of measure for timber offered is thousand board feet (MBF). The unit of measure for accountability is acres harvested.

- 69 * Ground Based Harvest System E01,
E02

Yarding is performed with horses, tractors, rubber tired skidders, and light flotation forwarders. The yarding system is basically ground lead with some machinery capable of producing lift to one end of the log.

The harvesting practice is usable under any cutting method within its operational limitations. It is the primary harvest practice on slopes 0-35 percent with some application on 35-50 percent slopes where special precautions are taken.

Maximum acceptable yarding distance is affected by many factors including yarding log size, volume per acre, and terrain. Some optimal and maximum yarding distances that can be considered in planning ground based operations, listed by yarding method, are: horse 100-200 feet, 400 feet; tractor 300-800 feet, 1,500 feet; rubber tired skidder 500-1,000 feet, 2,000 feet; light flotation forwarder 700-1,200 feet, 2,500 feet.

Loading equipment used in this practice is usually rubber tired loaders requiring landings one-quarter to one-half acre in size and heelboom loaders requiring landings one-quarter to one-third acre in size.

- 70 * Cable Harvest System E01,
E02

Yarding is performed with a cable machine, which is not required to provide partial or full suspension of logs. This harvesting practice is limited to the clearcut cutting method and partial cutting where very light volumes per acre are removed. It includes the following cable logging systems: mobile shovel yarder, high lead, and skyline systems with-

Practice Number	Title	Activity Code
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out lateral yarding ability. The system has a large range of yarding distance capability from 200-600 feet for mobile shovel yarders to over 2,500 feet for some of the skyline systems, but in application, yarding distances will generally be less than 1,000 feet.

- 71 * Skyline Harvest System E01,
E02

Yarding is performed with a skyline cable yarding machine, which is used when necessary to maintain partial or full suspension of the logs in the corridor, providing for protection of soil and residual timber. This harvest system is capable of harvesting under any cutting method. It has lateral yarding ability without partial suspension required during the lateral yarding. The practice has yarding distance capabilities ranging from 500 feet to over 5,000 feet, but in application, distances will usually be less than 1,000 feet. The system is very sensitive to layout of landings, anchors, and payloads. This practice is usually applied only on slopes over 35 percent. Landing size generally ranges from one-third to one acre.

- 72 * Special Harvest System E01,
E02

Yarding is performed with a helicopter, balloon, or other specialized equipment of adequate payload to fully suspend logs from the woods to the landing.

The system is economically very sensitive to all layout factors, with volume per acre and yarding distance most critical. It provides no soil disturbance due to yarding and can be applied with any cutting method.

Special harvest can be applied to any slope class; however, steeper, inaccessible slopes are most common. Fuels management and utilization standards are difficult to meet due to high yarding costs. Landing size will vary with type of specialized yarding equipment, but in general can be expected to be two to four times that needed by other harvest systems.

Practice Number	Title	Activity Code
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73 * Artificial Stand Reestablishment

E04

Activities necessary to reestablish desirable tree species by artificial methods. Minimum standards for reestablishment are contained in the Regional Guide. Actions included in this practice are preparation of the planting site; planting seedlings; animal, insect, and disease control; examinations, evaluation and certification. Hand, mechanical, and chemical treatment methods are optionally available. Selection of any particular method will be made at the project level, based on a site-specific analysis of the feasible alternative methods.

This practice is applicable to all areas scheduled for regeneration, which have been deforested for some reason. The unit measure is dollar per acre for all activities necessary to reestablish the area. The unit of measure for accountability is acres.

74 * Natural Stand Reestablishment

E04

Activities necessary to reestablish desirable species primarily by natural seedfall. Some planting may be required to fill in areas where the natural seedfall does not successfully reforest the area to minimum standards. Minimum standards for reestablishment are contained in the Regional Guide. Actions included in this practice are preparation of the planting site; planting seedlings if natural regeneration is not successful within 5 years; animal, insect and disease control; examinations, evaluations and certification. Hand, mechanical and chemical treatment methods are optionally available. Selection of any particular method will be made at the project level, based on a site-specific analysis of the feasible alternative methods.

This practice is applicable to all areas scheduled for regeneration by the shelterwood, strip clear-cutting and selection cutting methods. It may also be applicable to special cutting in the streamside management zone, visual emphasis special cutting, and other special cutting. The practice may be applicable to those areas deforested by other activities such as wildfires and past logging.

Practice Number	Title	Activity Code
75	<u>Tree Improvement</u>	E09
	<p>Activities necessary to develop, maintain, and manage tree improvement areas within the Eldorado. Actions for seed orchards include preparation of the sites for seed orchards; planting seed orchard trees or rootstock; grafting; brush, grass and weed control; pollination; cone collection; irrigation; and other general maintenance. Actions for progeny test sites include site preparation, planting genetically superior trees, release and weeding, animal control, forest pest management, evaluation of seedling development, and construction of fences when necessary to meet the tree improvement program goals.</p> <p>This practice is only applicable to those sites identified as seed orchards, progeny test sites, or buffer strips associated with those areas. The unit of measure is acres and the associated costs and benefits of genetic gains.</p>	
76	<u>Nursery</u>	E08
	<p>Production of seedlings for reforestation of National Forest and other federal lands. Actions include forest pest management, processing and storage of seed, the management of soil to maintain productivity over the long-term, and the production of seedlings in the numbers and quality requested by seedlot.</p> <p>Organization management, facilities development, and budgeting is involved. This practice is applicable only to the Placerville Nursery.</p>	
77	<u>Release and Weeding</u>	E05
	<p>Activities necessary to reduce the effect of competing vegetation, animals, insects, and disease on the growth and development of desired tree species. Release and weeding methods such as mechanical removal, crushing, cutting, dicing, hand cutting, pulling and hoeing, and application of pesticides are considered part of this practice. Selection of any particular method will be made at the project level,</p>	

Practice Number	Title	Activity Code
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80 * Christmas Trees and Miscellaneous Forest Products E07

Activities necessary to prepare, sell, administer, and utilize Christmas trees and other miscellaneous forest products. Examples of other miscellaneous forest products are posts, rails, decorative greenery, cones, burls, and shingle bolts. This practice includes all products other than sawlogs and fuelwood.

This practice applies to all forested land. Generally, the areas occur on slopes less than 35 percent and have the product available within 500- 1,000 feet of an access point. The practice applies also to land steeper than 35 percent if the product is within 100-200 feet of an access point. The unit of measure for economic purposes is dollars per acre. For other accountability, it is acres.

Element F - Water and Soil

The watershed program on the Eldorado has primarily served as a support function for other resource systems. It is anticipated that watershed management will receive added emphasis in the future due to the increasingly competitive demands for high quality water and to the recent developments in cumulative watershed impact methodology. This new emphasis will probably continue, and it is expected that the watershed rehabilitation and improvement program will receive even greater attention.

The watershed program is intended to promote optimum protection and management for the soil and water element, which is the base element for all of the renewable resources. Watershed management advises how other activities, including timber management, range management, recreation, mining, and energy resource management impact the soil and water resources. It also recommends where and how other resource activities can be managed to make them compatible with the soil and water resources. The various types of support provided to the other systems include planning or designing, inventories, monitoring, and administration. Where opportunities present themselves, watershed improvement measures will be implemented to improve water quality and the timing of water flow.

The soils program on the Eldorado ensures that the productivity of the land is maintained through the proper identification of soil capabilities and adherence to standards and guidelines for ground disturbing practices. The program includes developing new knowledge through special studies and surveys, providing soil protection, and when opportunities exist, soil rehabilitation, and improvement work. The soils program serves as a support function to other systems.

Practice Number	Title	Activity Code
81	* <u>Water Yield Improvement</u>	F03
	<p>Activities implemented for the primary purpose of increasing water yield. Practices involve snowpack management in the red fir timber stands and other direct improvement projects to watershed and streams. Unit of measure is acres treated and acre-feet of runoff yielded.</p>	
82	* <u>Runoff Regulation</u>	F03
	<p>Activities implemented for the primary purpose of regulating the timing of snowmelt runoff and preventing surface runoff. The objective is to alter the timing of snowmelt in order to deliver runoff at a more opportune time, either by modifying the vegetative arrangement or using structures. A companion objective is to reduce surface runoff from barren soils and increase storage capacity of alluvial areas by mulching, revegetation, and gully stabilization. Vegetative modification includes group selection and strip cutting in relatively dense timber stands, and planting. Structures include snow fences, dams, gully plugs, head-cuts, and water spreading devices. The optimum areas are in the snowpack zone, which is generally above 6,000 feet; extensive soil areas with poor ground cover; and alluvial soils that are gullied. Unit of measure is acres treated and acre-feet of runoff regulated.</p>	
83	* <u>Watershed Maintenance and Rehabilitation</u>	F03
	<p>Activities designed for the purpose of maintaining and improving watershed conditions. Actions include erosion treatment, water flow improvement (including overland flow), channel stabilization, and sediment control measures. Some specific applications include revegetation with grasses, trees, and shrubs, along with special microclimate treatments like mulch, matting, and drilling. Units of measure are acres treated, and acre-feet of improved water quality.</p>	

Practice Number	Title	Activity Code
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84 * Water Resource Management F04

Activities designed to prevent, reduce, or regulate the amount of pollution generated by nonpoint sources. This practice includes the "Best Management Practices" listed in the R-5 Water Quality Handbook and other resource practices that may be specific to the Eldorado. It involves input to the NEPA Planning Process, project implementation, and developing and administering plans for soil and water improvement projects. This practice also assesses the cumulative watershed effects of land disturbing activities. Third and Fourth Order Watersheds (2-30 square miles) will be analyzed and monitored to establish the threshold at which unacceptable damage will occur. The areas of option are all resource activities that disturb watershed conditions, generate pollution, or use water on either a consumptive or nonconsumptive basis. The units of measure are projects supported.

85 * Water Rights Use/Management F07

This activity includes all work associated with establishing an inventory of current water uses, water requirements, and water rights, along with processing applications and claims, handling adjudications, and managing acquired rights. Units of measure are dollars for inventory, applications and claims filed for water rights, the number of adjudications, and the case number of acquired rights managed.

86 * Soil Support Services F01,
F02

Activities that support other systems including soil resource inventory (SRI), interdisciplinary input to project plans, environmental analysis (such as timber sales, recreation site development, range planning and improvement, reforestation, and wild-life habitat improvement), input to special projects developed by other systems such as road cut and fill stabilization in unusual conditions, and erosion control prescriptions for such special projects as the nursery. Soil support services are applicable to practices in other resource elements, which routinely need soils input because of special circumstances. Unit of measure is the number of case reports.

Practice Number	Title	Activity Code
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87 * Soil Resource Maintenance and Improvement F03

Planning, implementation, and upkeep of projects, which maintain or improve soil productivity. Actions include soil fertilization, reduction of compaction, soil reshaping or replacement such as remaining windrows in existing plantations, emergency burn rehabilitation, special erosion control, and soil stabilization projects. Also includes addressing the cumulative watershed impacts of vegetative management practices (primarily timber management, fuels, and road construction) on the maintenance of a watershed threshold. In identified sensitive watersheds near their thresholds, the initiation of soil maintenance and improvement projects could allow for additional land disturbance practices to occur. The unit of measure is the number of acres treated.

Element G - Minerals and Geology

There are three categories of minerals on the Eldorado:

1. Locatables - minerals such as gold, silver, copper, zinc, chromite, lead, and tungsten occurring in both lode and placer type deposits.
2. Leasables - geothermal, oil, gas, and coal on public domain lands, and all mineral commodities on acquired lands. The only leasable potential on the Eldorado is geothermal.
3. Mineral materials - basically the common saleable varieties such as sand and gravel.

Forest practices for minerals area management are designed to allow the exploration and utilization of the mineral resources. Locatable mineral entry is authorized under the 1872 Mining Laws. Leasables on the Forest include geothermal and minerals of all types on those acquired lands without public domain status. The mineral materials, or the common variety form of minerals, is the only one of three categories that is totally managed under U.S. Department of Agriculture direction (36 CFR 228, Subpart C). Because of discretionary authority, disposal of saleable minerals is practiced on a Forest-wide basis.

The Geology Resource Element on the Eldorado deals with technical assistance and inventories in support of other resources.

Practice Number	Title	Activity Code
88	* <u>Mineral Management - Locatables</u>	G03, G05, G06
	Administration of surface resources in conjunction with the development of locatable mineral resources, including plans of operations, environmental assessment or impact statement, and requirements for mined area rehabilitation. Units of measure are claims, plans, and cases.	
89	* <u>Minerals Management - Leasables</u>	G03, G05, G06
	Administration of surface resources in conjunction with the development of leaseable mineral resources including plan of operation, environmental assessment or impact statement, a recommendation to U.S. Department of Interior - Bureau of Land Management, and requirements for mined area rehabilitation. Units of measure are permits, leases, and plans.	
90	* <u>Minerals Management - Minerals Materials</u>	G06
	Administration of saleable (common variety) minerals materials including requirements for mined area rehabilitation. Units of measure are permits and plans.	
91	* <u>Geologic Inventory and Evaluation</u>	G01
	This activity includes all work associated with in-service generated area-wide geologic studies. This practice includes such work as identification of potential development projects, identification of special interest geologic areas, delineation of geologic hazard areas, inventory of mineral materials, evaluations of aquifers and recharge areas, characterization of geologic conditions relative to potential construction projects, reconnaissance geologic mapping, surface sampling analysis, and preparation of geologic reports. The unit of measure is acres.	
92	* <u>Geologic Technical Investigations</u>	G02
	This activity includes all in-service generated, site-specific technical investigations for potential development of geologic resources/projects, or in support of other resource projects in planning	

Practice Number	Title	Activity Code
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stages. This practice includes such activities as testing of potential quarry sites for quality and quantity, aquifer testing at potential camp sites, evaluation of geologic conditions and hazards on potential development sites, detailed geologic mapping, core drilling, foundation testing, pump tests, soil and rock sampling for laboratory analysis, calculations of quantities, analysis of findings relative to potential projects, and preparation of reports. The unit of measure for this activity is sites.

Element J - Lands

The lands program on the Eldorado is a facilitating function and essentially consists of land adjustment and property management practices. The intent of the land adjustment program is to achieve the optimum land base necessary to facilitate resource management practices. The intent of the property management program is to allow permitted uses only where it is clearly demonstrated that there is no other logical alternative to use of National Forest lands. When National Forest lands are selected, permitted uses will be compatible with the Eldorado land management goals.

93 * Withdrawals and Revocations J04

Petitions, recommendations, and reports required by the Bureau of Land Management and Federal Energy Regulatory Commission to effect withdrawals, modifications, or revocations. It also includes the periodic review of existing withdrawals. Unit of measure is number of cases.

94 * Land Adjustments J12, J13,
J15, J16,
J17

Adjustment of the Forest landownership pattern by exchange, purchase, donation, transfer, and grants. It includes the disposal of scattered National Forest lands along the west boundary.

95 * Acquisition of Rights-of-Way J18

Acquisition of rights-of-way for all types of facilities including roads, trails, cost share agreements, and scenic easements. Units of measure are cases and agreements.

Practice Number	Title	Activity Code
96	* <u>Special Use Management - Nonrecreation</u> Processing applications and administration of nonrecreation type special uses such as isolated residences, utility corridors, and electronic sites. Unit of measure is cases.	J01
97	* <u>Right-of-Way Grants - Roads and Trails</u> Processing applications and administration of road and trail right-of-way permits, easements, and licenses including those provided by law. Unit of measure is number of rights-of-ways.	J02
98	* <u>Power Related Licenses and Permits</u> Processing applications and administration of licenses and special use permits for power related activities such as dams, reservoirs, and transmission lines. Unit of measure is applications, licenses, and permits.	J03
99	* <u>Property Boundary Location and Marking</u> Survey, mark, and post property lines for lands administered by the Eldorado. Maintenance of land title and survey records necessary to establish boundaries. Maintenance of property lines. Units of measure are entries, miles, and corners.	J06

Element L - Facilities

The facilities program consists of roads, trails, and structures. Its intent is to adequately provide and maintain Forest facilities to support management activities and minimize negative environmental impacts.

Energy is an integral part of the facilities program. The Forest will construct, operate, and maintain facilities with a minimum amount of expended nonrenewable energy.

A mixed landownership pattern provides an opportunity for cost sharing road and trail systems, which serve both public and private lands. The systems are coordinated to provide long-term access requirements, which are cost effective.

Practice Number	Title	Activity Code
100	* <u>Timber Access Road Development - Construction and Reconstruction</u>	L01 to L14
	Planning and construction of arterial, collector, or local roads necessary to access the timber resource. Roads may be constructed by timber sale purchasers or by public works contracts. These roads are located and constructed or reconstructed expressly for the most economical timber management job in conjunction with suitable measures to protect all resources.	
101	* <u>General Resource Access Road Development - Construction and Reconstruction</u>	L01 to L13
	Planning and construction of arterial, collector, or local roads necessary to facilitate other than timber resource development and protection. These roads will be constructed or reconstructed for economical resource management and safe general public use in conjunction with suitable measures employed to protect all resources.	
102	* <u>Transportation Management - Roads Open</u>	L19
	Open use achieved through permitting motorized access on all arterials, collectors, and local roads. Roads will be maintained at maintenance Level III, IV, or V to provide access for all National Forest traffic, public service, and private commercial haul.	
103	* <u>Transportation Management - Roads Regulated</u>	L19
	Roads are regulated by Regional Forester or Forest Supervisor order to prohibit use by certain vehicle classes or user groups. This practice is done to protect resource values, protect users, control maintenance expenditures, and to reduce user conflicts. Roads will be maintained at maintenance Level II to provide access for Forest Service administrative traffic, for dispersed recreation traffic in high clearance vehicles, and for any traffic regulated by special permit. Normally, regulated use applies to local roads and some collectors. Seasonal closures for wildlife or soil and watershed protection may be used. Some roads	

Practice Number	Title	Activity Code
	that cannot be adequately maintained for motorized use are restricted. Closed roads may be occasionally opened by permit to provide access for public firewood gathering and other beneficial uses.	
104	* <u>Transportation Management - Roads Closed</u>	L19
	Local roads are closed to motorized use. Roads will be maintained at maintenance Level I. Enough maintenance is accomplished to preserve the initial investment. The roads remain available for land management activities by the Forest Service, or permitted uses such as access to utilities for repair. Implementation may be by signs, gates, earth-log mounds, barricades, or other barrier devices.	
105	* <u>Transportation Management - Road Obliteration</u>	L19
	The road prism is restored to the resource production potential that existed prior to the road. This will be done by physically restoring the soil and vegetation to the preroaded condition.	
106	* <u>Trail Construction and Reconstruction</u>	L21 to L24
	Trails will be constructed or reconstructed to a minimum standard necessary to carry foot traffic, equestrian traffic, mountain bicycles and motorcycles, singularly or in combination.	
107	* <u>Trail Construction and Reconstruction - Special Purpose</u>	L21 to L24
	Trails will be constructed or reconstructed to a standard necessary to carry traffic or specific special uses. Examples of special uses include trails for the handicapped, botanical educational trails, cross country ski trails, and snowmobile trails.	
108	* <u>Transportation Management - Trails</u>	L20
	Trails are open to intended use. Managing trails for their intended use may involve restrictions on other uses. An example of a trail managed with some type of restriction on use would be the Pacific	

Practice Number	Title	Activity Code
	Crest Trail, which is closed to motor vehicles by law. Other restrictions would include seasonal limitations on trailbikes and/or equestrian traffic to protect resources. Trail management direction is given by the establishment of maintenance levels.	
109	<u>Fire, Administration and Other (FA&O) Construction and Reconstruction</u>	L24
	Planning, design, inspection, and construction of capital improvements to support fire, administrative, and other multifunctional activities. Includes opportunities to conserve energy such as retrofitting existing facilities.	
110	<u>Fire, Administration and Other (FA&O) Facility Operation and Maintenance</u>	L25
	Operation and maintenance of Eldorado National Forest structures serving fire protection, administration, and other management needs.	

Element P - Protection

Current and projected use trends for the Eldorado indicate the need for the Forest to provide a comprehensive fire management program. This program would include, but not necessarily be limited to, support activities such as fire planning, prevention, detection, suppression, initial attack, reinforcements, and managing planned and unplanned ignitions. In addition, it would include an aggressive fuels management program consisting of timber sale slash treatment, prior activity fuels treatment, and natural fuels treatment coordinated with the resource elements it supports.

Protection goals result from a process of identification, analysis, recommendation, and establishment of the most feasible balance of the above mentioned treatments in order to protect resource and private land values and to minimize the overall damage potential on both public and private lands within the forest.

Forest Pest Management and Air Quality Management are also handled under the protection element.

Practice Number	Title	Activity Code
111	* <u>Fire Management</u>	P01 to P10, P24
	Prevention, detection, presuppression, and suppression of fires. Activities take place both on National Forest lands and private lands under cooperative protection agreement with the California Department of Forestry. The Eldorado protection boundary has been established to define these lands in total. The normal fire season is May to November. The objective of this practice is to provide public safety and minimize resource losses caused by uncontrolled wildfire. Units of measure are dollars and persons.	
112	<u>Activity Fuels Management</u>	P11
	Planning, inventory, and treatment of residual fuels created by timber sale and other management activities that alter vegetation. Fuel treatment methods are burning, rearrangement, and removal. These methods prepare timber harvest areas for artificial regeneration. They also help maintain soil productivity, rehabilitate watershed conditions, improve range forage and wildlife habitat, and reduce fire hazard. Unit of measure is acres.	
113	<u>Prescriptive Fire Management</u>	P14
	An action to take advantage of fire to provide beneficial rather than harmful results. Planned and unplanned fire ignitions may be strategically used in a way that duplicates the natural role of fire in the environment. This practice is performed only in a designated <u>Management Area</u> , where unit boundaries are predetermined and applicable policy is approved in advance by the Regional Forester. Prescriptive Fire Management may be employed in Wilderness (unplanned ignitions) as well as other designated forest lands. Unit of measure is acres.	
114	<u>Natural Fuels Management</u>	P12
	Planning, inventory, and treatment of natural fuels. Fuel treatment methods are burning, rearrangement, removal, and type conversion to more desirable vegetation. Application of this practice is based on reducing potential fire hazard where timber, range, wildlife, and other resources would	

Practice Number	Title	Activity Code
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be threatened by buildups of untreated natural forest fuels. This practice may also be used to provide public safety and protect intermingled or adjacent private property values. Units of measure are plans and acres.

- 115 * Law Enforcement P24,
P25

All activities required to prevent violation of laws and regulations. Also the detection and investigation of suspected violations and appropriate resolution of violations. The primary purpose of law enforcement is to assure that use and occupancy of National Forest system lands is in reasonable compliance with established laws and regulations. Unit of measure is dollars.

- 116 * Integrated Pest Management P35,
P36

Management of forest pests to minimize resource losses and to maintain or improve productivity by the coordinated application of the full range of techniques available to prevent damage, reduce pest populations when necessary, and create vegetative conditions that are least susceptible to damage. Coordinate with other federal and state agencies when appropriate. Unit of measure is acres.

- 117 * Air Quality Management P38

Activities designed to prevent, reduce, or regulate the amount of air pollution generated by fugitive sources within the forest boundary, and activities designed to measure and respond to air pollution generated outside the forest boundary. This practice involves the NEPA process and project and project implementation; developing and administering plans for fuel reduction projects; and air quality monitoring and management of Class I airsheds. The unit of measure is projects supported.

G. Standards and Guidelines

Standards and Guidelines represent the Forest level of management direction. They are an extension of the Forest practices and set the minimum conditions that must be applied to the land to meet Eldorado goals and objectives.