

CHAPTER 1 – HISTORY OF KIRKWOOD

1.1 HISTORY OF KIRKWOOD DEVELOPMENT

Kirkwood opened to the public for skiing in December of 1972, with four chair lifts, a surface lift and lodge. The opening of the ski area culminated many years of study by private entities and the United States Forest Service (USFS) as to the suitability of Kirkwood for ski resort development.

In 1972, the Sierra Club sued the USFS in an effort to stop development of the Kirkwood project. The resulting court action required preparation of a comprehensive Environmental Impact Statement (EIS) in compliance with the National Environmental Policy Act and an Environmental Impact Report (EIR) in compliance with the California Environmental Quality Act. The EIS was prepared under the guidance of the USFS while the EIR was prepared with Alpine County Planning Department acting as lead agency. The resulting documents established definitive development parameters for the project. The EIS was completed in 1973 and the EIR was certified in 1974. Both of these documents are available for review at the Alpine County Planning Department located at 17300 State Route 89, Markleeville, California.

Since 1972, Kirkwood Mountain Resort has constructed six additional ski lifts for an existing total of 10 lifts and three surface lifts (rope tows). Commercial development resulted in the two current day lodges, which include restaurants, bars, ski sales/rental shops and related services. Other commercial development at the south end of the resort includes a small General Store/Post Office, Kirkwood Lodging Services, a real estate office, several food service outlets and a retail sports apparel shop. A ski-touring (cross-country) facility was developed at the north end of the resort in the early 1980's. Other facilities include a service station and a bar/restaurant in the old Kirkwood Inn located on the north side of SR 88.

1.2 HISTORY OF KIRKWOOD MASTER PLANS

The original Master Plan was prepared in 1971, for which an Environmental Impact Statement was prepared in 1973 (USFS) and accompanied by an Environmental Impact Report certified in 1974 (Alpine County 1974). The Kirkwood Master Plan was last amended in 1988 and previously amended in 1978 and 1981. The 1988 Master Plan, approved by Alpine, Amador and El Dorado Counties, made revisions that shifted land use locations and densities within the resort.

CHAPTER 2 - SUMMARY

2.1 PURPOSE

The Kirkwood Specific Plan has been prepared to illustrate the ultimate development of private lands within the Kirkwood community (hereinafter referred to as Kirkwood). This Specific Plan is the principal document which establishes goals, objectives and policies of the Kirkwood development and identifies land use zoning designations (i.e., residential, commercial, recreational) and densities. This Specific Plan also addresses circulation patterns and the provision of services and utilities to serve future development and the skiing operations. Development standards, regulations and implementation measures are included in this Kirkwood Specific Plan to guide the orderly development of Kirkwood.

This Kirkwood Specific Plan (hereinafter referred to as “the Plan”) is a fine tuning (amendment) of previous plans to provide a more pedestrian-oriented and environmentally sensitive development. The Plan represents no proposed change to the maximum population as shown in the amended 1988 Master Plan. The Plan does address a possible increase in the allowable total square feet of commercial space within the Kirkwood Valley.

The overall development concept for Kirkwood is to build a year-round destination resort while protecting the surrounding natural environment and ensuring Kirkwood’s unique mountain community remains unspoiled. Skiing is the major winter recreational use while non-winter uses include hiking, biking, running, tennis, equestrian activities and other outdoor sports.

2.2 PROJECT LOCATION

Kirkwood is located within Alpine, Amador, and El Dorado counties about 35 miles southwest of Lake Tahoe. Access is provided via State Route 88 which is an east-west route at the north end of Kirkwood. State Route 88 provides access to Jackson, California to the west, the Lake Tahoe area, Gardnerville and Carson City, Nevada to the northeast and east, respectively.

2.3 PROJECT ACREAGE

The Kirkwood Winter and Summer Resort includes private lands and public lands. The ski lifts and related facilities are located on private and National Forest Lands (Eldorado National Forest). Operations on National Forest Lands operate under a Special Use Permit issued by the USFS.

The Plan covers the 732 acres of privately held land in the counties of Alpine, Amador and El Dorado. As of July 2001, approximately 69% (506 acres) of the total private land at Kirkwood is owned, in fee simple, by KMR (the master developers of Kirkwood and operators of Kirkwood ski area) with the remaining 31% (226 acres) owned by other persons or entities.

2.4 PREPARATION PROCESS

Kirkwood Mountain Resort is the principal author of the Kirkwood Specific Plan. There were many contributors to the development of this Plan. Outside engineering, surveying, and many other various environmental consultants were contracted for various studies that were incorporated into and used to devise and in support of the planned development areas within Kirkwood.

The members of Tri-TAC, the USFS (Amador Ranger District), the KMPUD and Mountain Utilities were also significant contributors to this Plan.

Through the identification of environmentally sensitive areas, real estate market research, resort development concepts and experience, KMR has developed this Plan. It was prepared in such a manner as to harmonize, recognize and delineate those areas within the private lands of Kirkwood that are most physically suitable for residential, commercial, infrastructural and recreational development, given the challenging climate, location and existing levels of development.

CHAPTER 3 - INTRODUCTION

3.1 SPECIFIC PLAN INITIATION

The Specific Plan for Kirkwood was drafted by Kirkwood Mountain Resort, (KMR), at the request of Alpine, Amador and El Dorado counties, for the long-range development of Kirkwood. The former 1988 Master Plan controlling Kirkwood development was adopted by relying upon the original 1973/74 EIS and EIR, respectively. Due to development applications made by KMR beginning in 1995, in addition to the age of the environmental analyses referenced above, Alpine County, in consultation with El Dorado and Amador counties, believed that a new Specific Plan and EIR analysis was necessary.

3.2 OBJECTIVE OF THE KIRKWOOD SPECIFIC PLAN

The Plan has been prepared to illustrate the ultimate development of private lands within the Kirkwood community. The Plan is the principal document which establishes goals, objectives and policies of the Kirkwood development and identifies land use designations (i.e., residential, commercial, recreational) and densities. The Plan also addresses circulation patterns and the provision of services and utilities to serve future development.

The Plan's objectives are to expand overnight facilities and to develop a variety of commercial uses in keeping with the recreational nature of Kirkwood. The Plan represents no proposed change to the maximum population as approved in the amended 1988 Master Plan. The Plan does address an increase in the allowable total square feet of commercial space within the Kirkwood Valley.

3.2.1 Objectives

1. To create a year-round destination resort with a diversity of residential, commercial, recreational, and cultural activities.
2. To balance Kirkwood development with the skiing capacity of the mountain while protecting the environmental and visual quality of the area.
3. To develop a full-service resort with lodging, restaurants, shops and attendant services to accommodate the summer and winter visitor, while paying particular attention to preservation of the natural beauty and mountain atmosphere that makes Kirkwood unique.
4. To develop Kirkwood in such a way as to emphasize the quality of the visitor/resident experience by the types and designs of buildings, the types of services offered and the protection of valuable open space.
5. To concentrate development at Kirkwood in the Village Center where residential, commercial and recreational uses are closely intermixed promoting a strong pedestrian-

oriented community.

6. To enhance the quality of the skier experience by maintaining and improving mountain support facilities.

3.3 RANGE OF DEVELOPMENT AND CONSERVATION ISSUES

The Plan includes the following development and conservation issues:

1. A map and description of the distribution, location and extent of land uses, including open space, within the area covered by the Plan;
2. The existing and proposed location and extent of essential facilities such as public and private transportation, sewage, water, drainage, solid waste disposal, energy and other similar facilities;
3. Standards and criteria by which development will proceed and standards for the conservation, development and utilization of natural resources, where applicable;
4. A program of implementation measures including: regulations, public works projects and financing measures for infrastructure;
5. The relationship of the Kirkwood Specific Plan with the General Plans of Alpine, Amador and El Dorado counties, the Mountain Master Plan and the special use permit on which the Mountain Plan is applied.
6. The relationship of the Kirkwood Specific Plan with the neighboring jurisdictions, regional agencies and the State of California.

3.4 PROJECT LOCATION

Kirkwood is located near the headwaters of the Silver Fork of the South Fork American River on Kirkwood Creek, tributary to Caples Creek and the South Fork. Kirkwood is located within Alpine, Amador and El Dorado counties near the point common to Alpine, Amador and El Dorado counties about 35 miles southwest of Lake Tahoe.

Access is provided via State Route 88, which is an east-west route at the north end of Kirkwood. State Route 88 provides access to Jackson, California to the west, the Lake Tahoe area, Gardnerville and Carson City, Nevada to the northeast and east, respectively (see Figure 3.1).

The private lands of Kirkwood are surrounded by National Forest Lands, and therefore, are controlled by the 1988 Eldorado National Forest Land and Resource Management Plan (LRMP) and the Sierra Nevada Framework Forest Plan Amendment of 2000. Other federal agencies that may exert their jurisdictional duties include the US Army Corps of Engineers, the US Environmental Protection Agency and the US Fish and Wildlife.

The California state resource management agencies which may also exert their jurisdictional obligations on development projects at Kirkwood include the Department of Fish and Game, the Central Valley Regional Water Quality Control Board (CVRWQCB), State Water Resources Board, California Department of Transportation (CalTrans), Great Basin Unified Air Pollution Control Board, Amador County Unified Air Pollution Control District, El Dorado County Unified Air Pollution Control District and the Department of Forestry and Fire Protection.

3.5 SPECIFIC PLAN AREA AND ENVIRONMENTAL DESCRIPTION

The Kirkwood Winter and Summer Resort includes private lands and public lands. The ski lifts and related facilities are located primarily on National Forest Lands (Eldorado National Forest), with operations under a Special Use Permit issued by the USFS.

The Plan's jurisdiction covers all that real property situated in Sections 22 and 27, Township 10 North, Range 17 East of the Mount Diablo Meridian, Counties of Alpine, Amador and El Dorado, State of California, encompassing 732 acres, see Figure 3.2.

The Plan area is located in a generally steep and mountainous area near the crest of the Sierra Nevada range. The dominant landforms are the 9,000-10,000-foot ridges, which define the drainages of Kirkwood and Caples Creeks. A prominent feature of the topography is the Kirkwood Meadow, a glacially-derived alluvial valley surrounded by mountains on three sides. The mountain range represents an old subduction zone that is marked by the Foothills fault system on the west and the Sierra Nevada fault system to the east. The topography of the mountain range is gentle on the western slope and steep along the eastern escarpment.

The private lands of Kirkwood contain a mix of coniferous forest, sub-alpine meadow, open grass and shrub-covered slopes, and riparian corridors. The Kirkwood Meadow is bisected by Kirkwood Creek and includes wetlands and a variety of low-growing meadow and riparian plant species (i.e., willow, larkspur, columbine).

Upland open space areas include coniferous forests (i.e., pine, juniper, fir) and slopes covered with various grasses (i.e., wheat grass, melica, timothy) and low forbs such as yarrow, wandering daisy, lupine and sedges.

These areas are found primarily at the uphill side of existing residences and commercial development and abut National Forest Lands. Some areas have been disturbed due to prior logging, clearing and maintenance of ski runs and construction of facility service access roads.

Fishery resources in the immediate vicinity of Kirkwood are limited by minimal or absent summer flows in tributaries and the headwaters of Kirkwood Creek. Brook trout have been observed in isolated pools located within sections of Kirkwood Creek. Further downstream, Kirkwood Creek supports brook trout (Salvelinus fontinalis) and brown trout (Salmo trutta) populations that are self-propagating.

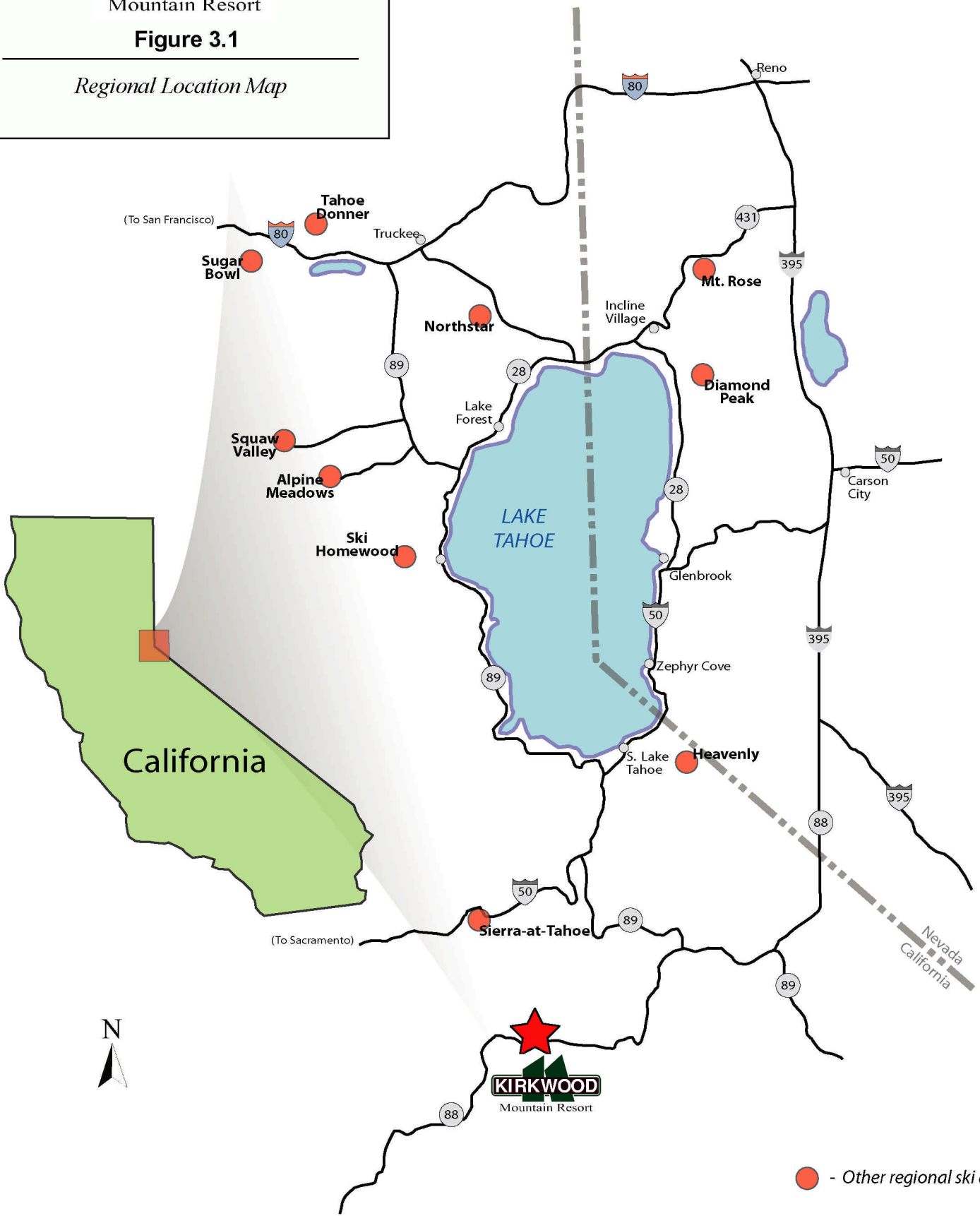
Other wildlife species considered non-sensitive but likely to be found at Kirkwood include mule deer, black bear and mountain quail. These are considered Management Indicator Species by the U. S. Forest Service, which represent the diversity of vegetation and special habitat components, required by all fish and wildlife species. At Kirkwood, the overall habitat capability for these species is medium (Simpson Environmental, 1995).



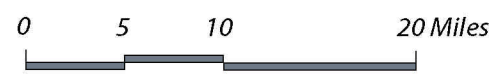
Mountain Resort

Figure 3.1

Regional Location Map



● - Other regional ski areas



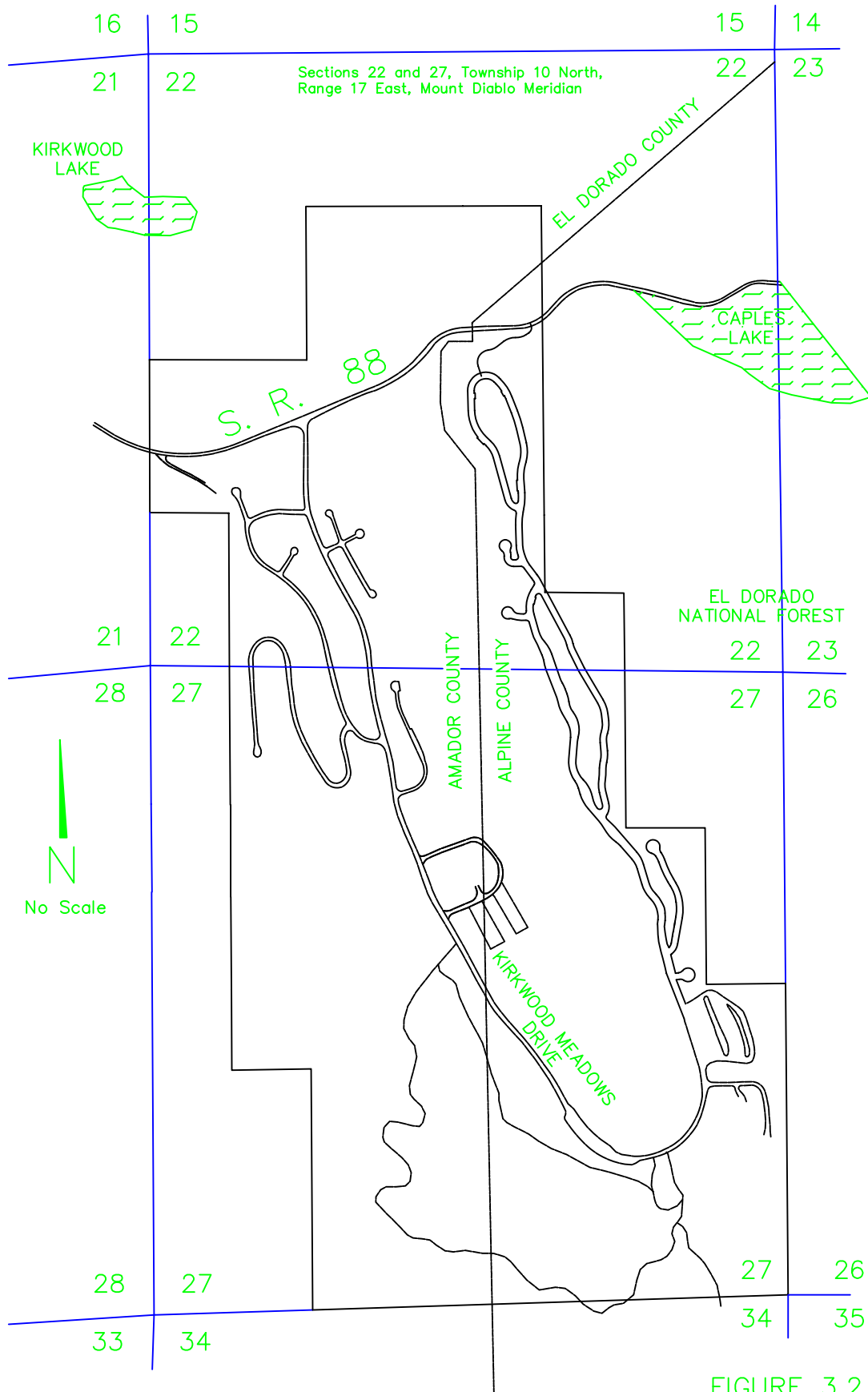


FIGURE 3.2
SITE LOCATION MAP

3.6 POLICY, REGULATORY INTENT AND THEIR RELATIONSHIP

The Plan is intended to be both a policy and regulatory document. It establishes the policies that are in-turn enforced through Ordinances approved by the individual Counties.

The goals, objectives and policies stated herein are intended to provide the rationale for the proposed development regulations/ordinances. The regulations included herein are the zoning regulations applicable to properties within the Plan boundary and are intended to supplement and in some cases replace the county regulations to address the uniqueness of Kirkwood.

The regulations set forth in this Plan are intended to be enforced by county ordinances as appropriate, by which the policy statements may be achieved within specific parameters.

3.7 KIRKWOOD SPECIFIC PLAN OBJECTIVES ACCOMPLISHED

The objectives of the Plan are achievable through prudent policy research, formulation and implementation, coupled with equitable enforcement of the regulations (ordinances).

For example, height restrictions placed upon single-family/duplex homes and multi-family structures regulate the height to which a structure can be built. It is a Policy of this Plan to preserve the natural setting of Kirkwood by minimizing the visual effect of development. Height restriction regulations are one method of achieving this objective.

3.8 RELATIONSHIP TO COUNTY GENERAL PLANS

Proposed development within Kirkwood is reviewed for conformance with the Plan and its accompanying documents. The reviewing bodies include the Tri-County Technical Advisory Committee (Tri-TAC) comprised of representatives of Alpine, Amador and El Dorado counties and the county building department of the county in which the project is proposed. Representatives of the U.S. Forest Service serve as ex-officio members of Tri-TAC. The county planning department may be involved if the project requires a use permit, tentative map or variance.

Private lands of Kirkwood fall within the jurisdiction of three counties - Amador, El Dorado and Alpine. Therefore, the three counties will be responsible for adopting the Plan and approving the regulating ordinances.

3.8.1 Amador County General Plan

The Amador County General Plan, which applies to land uses at the western edge of Kirkwood, designates Kirkwood as Special Planning (SP). This classification applies to land uses which have been or are proposed to be developed as planned developments or other carefully prepared or supervised plans. As stated in the Amador County

General Plan (page 11 of the Land Use Element): “Complex land development projects are acceptable, provided there are findings of conformity and subject to use permit or other appropriate controls.” The Amador County General Plan designates the public land surrounding Kirkwood as Open Forest (O-F) which applies to the National Forest Lands.

The Amador County General Plan also includes text related to the Scenic Highway status of State Route 88 (SR 88) and development in its proximity (page 35 of the Land Use Element).

“The Amador County Board of Supervisors has by resolution found that the portion of State Route 88 between what is known as the Dew Drop Fire Station and the Alpine County Line can be regulated in such a way as to meet the five criteria in Section 261 of the State Streets and Highway Code, thus is hereby designated and recognized by the State of California as a Scenic Highway.”

3.8.2 El Dorado County General Plan

The El Dorado County General Plan, which applies to land uses north of State Route 88, designates private lands within Kirkwood as “Adopted Plan” (AP) which recognizes areas for which specific land use plans have been prepared and adopted. These plans are adopted and incorporated by reference into the County’s General Plan and the respective land use map associated with the Plan is adopted as the General Plan Map for that area. Thus, the Specific Plan Land Use Map is incorporated into the El Dorado County General Plan. The El Dorado County General Plan designates the National Forest Lands surrounding Kirkwood as “Natural Resource” (NR) which applies to areas that contain economically viable natural resources.

State Route 88 is shown in the El Dorado County General Plan as a State Scenic Highway. El Dorado County defines a Scenic Highway as follows: “a highway, road, drive, or street that, in addition to its transportation function, provides opportunities for the enjoyment of exceptional beauty, or of historic or cultural interest. The aesthetic value of scenic routes often are protected and enhanced by regulations governing the development of property or the placement of outdoor advertising.”

It should be noted that the El Dorado County General Plan was invalidated by court order and is in the process of reformulation as of February 2003.

3.8.3 Alpine County General Plan

The Alpine County General Plan, which applies to land uses at the eastern edge of Kirkwood, designates Kirkwood as Planned Development (PD). This designation allows “any residential, commercial, institutional, and recreational use or combination of uses arranged and/or designed to result in an integrated and organized development deemed acceptable by the County.” (Alpine County, 1982).

The Alpine County General Plan designates the public lands surrounding Kirkwood as

Recreational Site (RS) and lands around Caples Lake to the east of Kirkwood as Open Space (OS). The RS designation identifies areas which contain large “recreational facilities which may draw to the County significant numbers of persons”. The OS designation is intended to “protect and promote wise use of the county’s natural resources”.

State Route 88 is shown in the Alpine County General Plan as a Scenic Highway.

3.9 PLANS OF NEIGHBORING JURISDICTIONS

3.9.1 Eldorado National Forest

National Forest Lands surrounding Kirkwood, (not addressed by the Plan) are under the jurisdiction of the U.S. Forest Service. Public lands surrounding Kirkwood are under the jurisdiction of the USFS and use of these lands is addressed in the Kirkwood Mountain Master Plan and the Special Term Use Permit between the USFS and KMR. Locally, the Eldorado National Forest is guided by the Eldorado National Forest Land and Resource Management Plan (LRMP) (USDA, 1988) and more recently the Sierra Nevada Framework Forest Plan Amendment of 2000.

A Special Use Permit from the United States Forest Service, Eldorado National Forest, covers 2,300 acres of skiable terrain and controls the ski mountain operations at Kirkwood. Not all of this terrain is currently accessible from chairlifts, thus expansion and upgrade of existing facilities is planned as proposed by the Mountain Master Development Plan Draft of August, 2001.

3.9.2 Regional Plans

There are no known regional plans in place at this time which directly influence the community of Kirkwood, that have not been taken into consideration with the development of this Plan.

3.9.3 State Plans

There are no known state plans in place at this time, which directly influence the community of Kirkwood, that have not been taken into consideration with the development of this Plan.

3.10 PROJECTS REQUIRED TO BE CONSISTENT WITH THE KIRKWOOD SPECIFIC PLAN

Rezoning, Tentative and Final subdivision maps and public works projects within Kirkwood are required by law to be consistent with the Plan. All residential, commercial, mixed-use, public works, recreation and conservation projects must comply and be consistent with polices of the Plan and implementation of those projects must comply with the Ordinances of the Plan.

CHAPTER 4 – LAND USE AND REGULATORY PROVISIONS

INTRODUCTION

This chapter of the Plan focuses on the designated land uses for Kirkwood. These designations are intended to address potential changes in market conditions and provide updated environmental data. Each category of zoning is addressed, with accompanying objectives and policies used to guide development within that specific zoning category, and associated land use controls. The Specific Plan Land Use Map illustrates the general locations where development will occur, Figure 4.1.

4.1 OVERALL LAND USE PROGRAM

Kirkwood includes a mixture of residential, commercial, public services and open space/recreational land use zones. No permanent industrial uses are proposed. Utilities such as the powerhouse and water/wastewater facilities are designated as “Service” uses. Sub-areas with the greatest concentration of new development are the Village Center, the expanded Ski In/Ski Out Subdivisions on the western slopes of Kirkwood.

A graphic representation of areas proposed for development is presented in Figure 4.1, the Specific Plan Land Use Map. A summary of acreages for each type of land use is included in Table 4.1. Density information is provided in Table 4.2. The following categories of land use zones have been used for the Specific Plan Land Use Map:

SR:	Single-Family/Duplex Residential Zone
MF:	Multi-Family Residential Zone
MF-C:	Multi-Family and Commercial Zone
S-P:	Service/Utilities and Parking Zone
OS:	Open Space
OS-R:	Open Space and Recreation Zone
M:	Meadow Zone

Following is a brief description of the zoning categories as presented on the land use map. Population, not the standard units per acre allocation, determines allowable densities for these areas.

4.1.1 KIRKWOOD SUBAREA GENERAL DESCRIPTIONS

Mountain Village-East and West

The Mountain Village is on the west and east sides of Kirkwood Creek, in the existing Village area at the head of Kirkwood Meadow. The Draft Plan zones the Mountain Village as MF/C, OS/R and S/P. The intent is to focus commercial development in this area and to intermix residential and commercial uses to create a strong pedestrian-oriented community. The entire Village Center (east and west) contains a mix of

residential units that include condominiums for individual owners, interval ownership units (whereby more than one owner shares the ownership of a unit to promote year-round use of the resort), and hotel/lodge units. Ground-floor commercial units will be created within the condominium buildings, centered around open air plazas that serve as public gathering places.

Timber Creek Area

The Timber Creek area is an area containing a day skier lodge, parking and skier services. The area encompasses Loop Road, and the area west of Kirkwood Meadows Drive, including the existing Timber Creek Lodge. The Timber Creek area is occupied by surface parking lots, the KMPUD wastewater treatment plant facilities, the Kirkwood volunteer fire department and the KMPUD community building.

Ski-in Ski-out North and South

The land north and south of Timber Creek Lodge is zoned under this Plan for a mix of residential and residential/commercial uses in addition to recreation. The sub area footprint is larger than that shown on the 1988 Master Plan, extending single family development into areas not slated for development under the 1988 Plan.

Kirkwood Meadows West

Kirkwood Meadows West includes the Kirkwood Meadows Association, the original single family/duplex subdivision in the Kirkwood Valley. Areas both east and west of Kirkwood Meadows Drive are included.

Kirkwood North

Kirkwood North encompasses all KMR lands north of Hwy 88. Existing Development is a gas station, the Kirkwood Inn, the riding stable and the cross country ski center. Future proposed development maintains the multi family-commercial zoning and includes 40 units comprising a bed and breakfast facility and a multi-family/commercial center approximately where the gas station is currently. At buildout there will be 32,000 square feet of commercial space under the Draft Plan, which includes the existing 6200 square feet in the Kirkwood Inn and cross country Ski Center.

East Meadows

East Meadows, located east of Kirkwood Meadow includes the East Meadows I, II and III single family subdivisions. SR and OS zones are maintained under the Draft Plan.

Juniper Ridge

The Juniper Ridge subdivision is located at the southeast end of the East Meadows sub-area. It includes ten single family and 9 duplex lots and maintains the existing SR and OS zoning classification under the Draft Plan.

Kirkwood Meadow

Kirkwood Meadow is the open, central valley area that divides Kirkwood into east and west areas. The Meadow is protected from residential or commercial development, although infrastructure installation and certain non-disturbing recreation uses are allowed. The meadow is protected through a 1973 Scenic Agreement between KMR and the U.S. Forest Service, and a conservation easement entered between KMR and North American Land Trust in January 2003.

4.2 SINGLE-FAMILY/DUPLEX RESIDENTIAL (SR)

4.2.1. Objectives for Single-family/Duplex Residential Development

1. Maintain a high level of design quality and product diversification.
2. Encourage passive solar and energy efficient design elements.
3. Encourage design elements promoting harmony with the environment.

Figure

4.1

4.2.2 Polices for Single-family/Duplex Residential Development

1. Require site specific building envelopes at development sites to avoid and minimize environmental degradation and unnecessary ground disturbance.
2. Create green belts in subdivisions to maximize recreational opportunities and preserve open space.
3. Allow for Employee units in single-family/duplex residential areas.

4.2.3 Program for Single-family/Duplex Residential Development

The SR zoning category is found throughout Kirkwood and represents those areas that are currently developed/subdivided, and also those areas that are intended to be developed as single-family and duplex residences.

The maximum density associated with the SR zoning designation is 24 persons per acre. This corresponds to the density allocation of 6 persons per single-family home, with an average lot size of one-quarter (1/4) acre. Duplex lots, which are designated and subdivided as duplex lots at the time of Tentative and Final Map, are allocated a maximum density of 48 persons per acre. Kirkwood Meadows West, East Meadows, Juniper Ridge, Kirkwood North and parts of Ski In/Ski Out are sub-areas of Kirkwood that are zoned for Single-family/duplex residential development.

4.2.4 Employee Units Within Single-family/Duplex Residential Zones

If the CC& R's of the appropriate and applicable owners association allow, employee units shall be permitted on lots or parcels in SR zone districts which are designated for single family homes in conjunction with the construction of the main dwelling unit, provided a use permit is obtained from the Planning Department of the county of concern. These units shall be designated as *Employee Units* and shall be consistent with the following criteria:

1. Payment of all impact and assessment fees and compliance with all ordinances applicable to the construction type;
2. Employee Units shall be attached and meet the following criteria:
 - A. Employee Units shall be sized at the lesser of 50% of the main structure or 1000 sq. feet;
 - B. Employee Units shall be attached to the main dwelling by a common roofline or structural feature which does not exceed a distance of 30 feet from the main dwelling. Employee Units shall be architecturally consistent with the main dwelling unit, such consistency shall be determined by Tri-TAC or the planning commission in the event the commission hears the matter.
3. Employee Units must be Deed restricted and meet the definitions of employee housing in accordance with the Employee Housing Ordinance as adopted.
5. Detached Employee Units are not allowed.

Any party desiring to construct a new structure or convert an existing structure to a Employee Unit shall meet all other provisions of the applicable county codes related to construction including, but not limited to, sewer, water, power and building permits and fees.

4.2.5 Proposals for Single-family/Duplex Residential Development

The Ski In/Ski Out - North and South areas are located on either side of the existing Timber Creek Lodge area (Timber Creek Village). The development plan for this area is a mixture of residential and recreational uses. Skier bridges are planned to be constructed (placement will depend on the final design) to allow for easy ski-lift access by residents. Lots are designed to border ski trails in and among tree clusters that define the trails. Some of the land included in this area is currently ski trails and will remain as such to the extent this is possible.

Additionally, 'ski paths' will allow access to most lots, encouraging the use of ski trails (winter) and bike/foot paths (summer) to travel about Kirkwood. This design affords the opportunity to minimize vehicle trips and maximize the use of commercial and day skier parking lots. Ski paths are not intended to transport large numbers of people and are intended primarily for use by the residents of that subdivision.

See Figure 4.3 and Figure 4.3a for a conceptual illustration.

4.3 MULTI-FAMILY RESIDENTIAL (MF)

4.3.1 Objectives for Multi-family Residential Development

1. Create a diversification of product type.
2. Ensure aesthetic cohesion among multi-family projects.
3. Create a pedestrian oriented atmosphere.

4.3.2 Policies for Multi-family Residential Development

1. Appropriately site multi-family projects according to physical and environmental constraints.
2. Limit the maximum height of multi-family structures to three stories/levels, plus loft space, from the backfilled side (if applicable) of the building.
3. Ensure that the design of buildings maximizes the safety of inhabitants and passersby.

4.3.3 Program for Multi-family Residential Development

This zoning category (MF) is mainly found on the western side of the Kirkwood Valley and includes those existing condominium buildings such as The Meadows, Edelweiss, Thimblewood, Meadow Stone, Lost Cabin, Snowcrest and Base Camp. This zoning designation allows for the development of multi-family dwelling units, such as townhomes, condominiums, apartments, etc. Employee housing complexes may also be located within, but not restricted to, this designation.

The minimum density associated with this land use category is 20 persons per acre. The maximum density allowed within the MF Zone is 200 persons per acre. The objective is to provide for maximum flexibility in design, site planning and product mixture that could address the current market trends at the time of development.

4.3.4 Proposals for Multi-family Residential Development

The majority of the existing condominiums at Kirkwood fall within this zoning category. However, Ski In/Ski Out North and South contain the MF designation in addition to SR as previously discussed, see Figure 4.3.

4.4 MULTI-FAMILY RESIDENTIAL AND COMMERCIAL (MF-C)

4.4.1 Objectives for Multi-Family and Commercial Use

1. A variety of residential densities and unit types shall be constructed to meet market demand and to provide a variety of housing types in keeping with the nature of Kirkwood.
2. Ensure aesthetic cohesiveness among multi-family projects.
3. Create a pedestrian oriented atmosphere.
4. Develop a well-coordinated commercial center at the Village and support services throughout Kirkwood.

4.4.2 Policies for Multi-Family and Commercial Use

1. Design of mixed-use structures shall ensure the safety of inhabitants and passersby from snowshed and ice.
2. Higher residential densities shall be mainly concentrated in Multi-Family and Commercial (MF-C) zones to promote pedestrian activity.
3. When residential uses are mixed with commercial uses, they shall be adequately protected from potential noise, security and safety problems through construction techniques, design methodology and use permit restrictions for some commercial uses.

4.4.3 Programs for Multi-family and Commercial Development

By combining commercial and residential uses, two distinct needs of the community can be met without having to further disturb vacant land. Further, mixed-use zoning designations embrace and encourage a pedestrian environment.

The minimum density associated with this land use category is 20 persons per acre. The maximum density allowed within the MF-C Zone is 200 persons per acre.

The total amount of commercial square feet at Kirkwood under buildout conditions is expected to be up to 195,000 square feet. With 76,664 commercial square feet existing (February 2003), an additional 118,336 commercial square feet will be constructed. Under buildout conditions, it is anticipated that 65% of the commercial space will be located within the Village. Fourteen percent (14%) would be located within the Timber Creek Village, and nine percent (9%) at Kirkwood North. An additional nine percent (9%) of the total square footage remains as a contingency to be located in areas that will be determined as the demand for services arises.

4.4.4 Proposals for Multi-family & Commercial Development

This zoning category can be found in three separate areas at Kirkwood. The first and largest area is found at the Kirkwood Village located at the southern end of Kirkwood, where The Lodge at Kirkwood is located (see figure 4.4). The second area is at Timber Creek, where KMR proposes to develop a “mini village” with commercial and residential activity centered at the base of Chair Lifts 7 and 9. The third area can be found on the north side of State Route 88. A small highway oriented multi family-commercial center will border SR 88 with the potential for an expanded cross-country center, employee housing and a Bed & Breakfast facility located off of the highway.

4.5 SERVICE/PARKING (S-P)

4.5.1 Objectives for the Service Facilities/Parking Areas

1. Maximize usage of land by allowing multiple activities to occur.
2. Maintain and expand parking facilities to meet demands.
3. Kirkwood Mountain Resort shall work closely with relevant agencies such as the KMPUD, Mountain Utilities, county sheriff’s departments, the Alpine County Unified School District, and other interested agencies to ensure adequate provision of services and utilities for Kirkwood visitors and residents.

4.5.2 Policies for the Service Facilities/Parking Areas

1. A systematic approach to safe, adequate, and cost-effective public utilities and services shall be provided to meet Kirkwood’s needs.
2. Utilize innovative designs to maximize usable space while limiting the need for expansive vegetation removal.
3. Wherever possible, use existing parking and roads for utility distribution lines.
4. Provide adequate parking for patrons, day skiers and employees.
5. Reduce in-valley traffic through planned shuttle stops, alternate transportation (i.e. golf carts, bicycles and rope tows), designated walkways and a pedestrian friendly development.

4.5.3 Program for Service Facilities/Parking Areas Development

Service and parking areas can be found throughout the Valley. In order to maintain maximum flexibility in future utility/infrastructure expansion and parking needs, this land use has been combined. Typical uses would be a school facility, indoor recreation facilities, parking, (surface or parking garages), water and wastewater treatment and distribution facilities, power generation facilities, gas/propane storage and distribution facilities, effluent absorption beds and snow storage. Given the fact that existing infrastructural facilities are intermixed at the locations of the existing major surface parking lots, this service and parking development program is a sound methodology to facilitate future parking and infrastructural development.

4.5.4 Proposals for Service Facilities/Parking Areas Development

Timber Creek day skier parking is proposed for surface parking expansion. The Timber Creek- Loop Road area currently contains the upper and lower Chair 7 parking lots, the ACUSD school site and the KMPUD parcel.

Although the Snowkirk/Red Cliffs parking lot located northeast of the Village is zoned so that expansion may take place, the topography of the site does not readily lend itself to surface parking expansion. However, a parking garage may be well suited to this area due to the topography and the ability to top-load the garage from parking bays higher on the slope. This garage could be designed so that it blends into the mountain. Such a structure may be used to satisfy the covered parking requirements for development in the Village and as day visitor parking. Refer to Chapter 5 for parking ratio requirements.

Parking areas in Kirkwood North serve the cross country ski center, the Kirkwood Inn and Gas Station.

4.6 OPEN SPACE (OS) AND OPEN SPACE RECREATION FACILITIES (OS-R)

4.6.1 Objectives for Open Space

1. Encourage a variety of recreational uses within the OS zone for year-round recreational activities at Kirkwood.
2. Promote recreational activities that do not require substantial ground disturbance or lead to ecological disruption.

4.6.2 Policies for Open Space

1. Open space lands available for recreational use shall be used in such a way that avoids and minimizes damage to natural resources or scenic vistas.
2. Whenever possible, utility easements should be used to link OS areas throughout Kirkwood as part of developed pedestrian, bicycle, or equestrian trail systems.

3. Where appropriate, recreational facilities should take advantage of natural resources and features of scenic value such as stream corridors and scenic vista points.
4. Recreational facilities shall be set back appropriately from stream banks to minimize damage from erosion. Stream crossings shall be reviewed by the appropriate agencies to ensure adequate environmental protections.
5. Recreation facilities shall be developed with consideration for compatible adjacent uses, access and traffic flows

4.6.3 Program for Open Space

Open Space areas are designated as “OS” on the Specific Plan Land Use map. Basic use types to be expected in these areas are Nordic, Alpine and Cross Country skiing. During the summer months, hiking and mountain biking are the main uses. Other possibilities include grass skiing, hot air ballooning, equestrian use, fly-fishing, nature hikes, lectures and guided tours.

4.6.4 Proposals for Open Space

The Open Space areas (OS Zone) are meant to be large areas where minimal man-made installations are allowed. An example of an allowed installation is a chair lift and its support infrastructure.

Uses of the OS Zone will vary seasonally and are envisioned to include alpine and Nordic skiing, snowshoeing, rock climbing, grass skiing, disc golf, hang gliding, hot air ballooning, hiking, mountain biking, fishing, horseback riding and other similar activities which do not require particular permanent structures.

4.6.5 Objectives for Open Space and Recreation (OS-R)

Provide limited open space area where permanent facilities, parks, tennis courts and similar installations are allowed. These areas will be dispersed generally around the valley.

4.6.6 Policies for Open Space and Recreation

1. Provide dedicated areas interspersed throughout Kirkwood where permanent recreational facilities may be constructed.
2. Facilities should be appropriate for the individual site, considering type and density of adjacent planned development.
3. Facilities should be designed for minimal impact on the site.

4.6.7 Program for Open Space and Recreation

Provide dedicated, protected areas for recreational activities requiring installed equipment or special circumstances.

4.6.8 Proposals for Open Space and Recreation

The small areas proposed for Open Space/Facilities Allowed are planned to host the type of recreational activities, which require equipment or permanently installed facilities.

Multi-use recreation/community facilities are necessary in providing recreational opportunities at Kirkwood. Depending upon design, many different activities and uses could take place in such a facility. Administration offices, meeting/conference space, library, movie theater, non-denominational worship facility, exercise/weight room, gymnasium floor space for various sports, a pool, class space, post office, and lockers/showers/ restrooms are all possibilities. The building could also include a food preparation area for conferences, community potlucks, etc.

It should be noted that larger recreational facilities are also an allowed use in service/parking zones. Additional uses envisioned for OS-R Zones are tennis courts, basketball courts, skating facilities, playgrounds, picnic areas, other court sports, etc.

4.7 KIRKWOOD MEADOW

4.7.1 Objectives For the Kirkwood Meadow

1. Maintain the ecological integrity of the meadow.
2. Promote non-invasive recreational activities.
3. Balance the carrying capacity of the pastureland with the appropriate number of grazing animals.

4.7.2 Policies For the Kirkwood Meadow

1. The Kirkwood Meadow shall be retained as permanent open space in accordance with the 1971 agreement between Kirkwood Associates, Inc. and the U.S. Forest Service and the terms of the Conservation Easement entered with North American Land Trust in January 2003.
2. Maintenance of utility lines and construction of underground utilities in the Kirkwood Meadow shall include construction measures that minimize damage to meadow resources and Kirkwood Creek, as provided in erosion control, design and landscape guidelines in effect at the time of the project.
3. A grazing plan shall control the use of the meadows by livestock.

4.7.3 Program for the Kirkwood Meadow

The Kirkwood Meadow is designated as Meadow (M) on the Specific Plan Land Use

map. As shown in Table 4.3, no permanent aboveground structures shall be developed in this zone, except those necessary for utilities such as well pump enclosures or bridges to allow for east/west access across the Meadow by non-motorized vehicles. Primary Meadow uses shall be limited to cross-country skiing, horseback riding, grazing, hiking and other recreational uses provided they do not cause permanent damage to the meadow ecology.

Studies commissioned thus far by the KMPUD and KMR have indicated that the meadow is an area in which viable sources of subterranean water may be tapped, currently and in the future.

4.7.4 Proposals for the Kirkwood Meadow

To accommodate the safety of patrons and avoid unauthorized trail blazing, KMR and/or the KMPUD may construct temporary or permanent bridges across Kirkwood Creek at appropriate locations. It is expected that these bridges will keep hikers, bikers and horse-back riders on designated trails which cross the Creek at these bridged locations. During the winter months, these bridges may also offer a greater degree of safety to cross-country skiers. All bridges and other facilities will conform to permit restrictions from applicable agencies as they may be required from time to time.

Utilization of the meadow for nature hikes and educational seminars will be pursued as an avenue for expansion of recreational and educational activities at Kirkwood.

4.8 LOCAL ROADS, STATE ROUTE 88 AND CAL-TRANS RIGHT-OF-WAY

While indicated on the Land Use Map, this category is not intended to be a zoning designation, but rather is included for completeness. Known and existing roads have been classified and the total area has been calculated. As new projects are designed and constructed, the acreage associated with roads and rights-of-way will increase. Due to the manner by which single-family subdivisions are designed, they are anticipated to have the greatest increase in roads, whereas the multi-family areas will likely have a minimal increase to the overall acreage of roads in Kirkwood.

4.9 LAND USE REGULATIONS

Table 4.3 lists the allowable uses within each zoning category. Development controls are discussed in detail following Table 4.3 found at the end of this Plan and provide further regulatory authority and direction for the counties to enforce and ensure development proposals meet the criteria.

4.9.1 Purpose

The purpose of land use regulations is to ensure that land use designations are structured in such a manner that compatible uses are appropriately located and allowable uses are equitably enforced.

4.9.2 Applicability

All land use regulations contained herein are applicable to all land within the Kirkwood Specific Plan boundary (Figure 4.1).

4.9.3 Residential Unit Projections

Table 4.1 describes the acreage associated with all Land Use categories in the Plan. The number of units projected in Table 4.2 is based on a number of factors. The Plan must be at all times cognizant of the 6558 overnight population limit. The obvious way to achieve conformance is to devise a unit mix and total that will provide somewhere near the 6558 population limit but not exceed it.

The existing development was evaluated using the occupancy experience factors developed by RRC Associates (see Section 4.10.1), and projections made past that for unit count and types, (most probable case), to net the total estimated population. Table 4.2A estimates the mix of unit types and associated population at build out.

It should be noted that, generally, the approved density of development is rarely achieved in reality, therefore the likely outcome is that build out will have fewer units than approved; therefore, fewer overnight accommodations will result.

**TABLE 4.1
ZONING AND ASSOCIATED ACREAGE**

Zoning Designations	Acres
Single Family/Duplex (SR)	176.7
Multi-Family Residential (MF)	30.3
Multi-Family Residential and Commercial (MF-C)	50.6
Open Space (OS) (1)	224.0
Open Space and Recreation (OS-R)	3.1
Meadow (M) (2)	130.0
Service/Parking (S-P)	45.6
Local Roads & State Route 88 & ROW (R/R-O-W) (3)	72.0
TOTAL	732.3

Notes for Table 4.1:

(1) Includes the Ski Mountain and undeveloped open space available for general recreation activities.

(2) Includes the Kirkwood Meadow as shown in Figure 4.1.

(3) At buildout, new internal roads may exceed the acreage shown in this table. These roads will be defined at the time of applications for subdivisions and are not shown in the Specific Plan Land Use map. This category is not intended to be a zoning designation, but is included in the acreage calculations for completeness for what is known today.

**TABLE 4.2
DEVELOPMENT PROGRAM SUMMARY FOR RESIDENTIAL ZONES**

Zoning Designation	Total Projected Units
Single Family/Duplex	392
Multi-Family Residential	332
Multi-Family Residential and Commercial	689
TOTALS	1413

**TABLE 4.2A
Kirkwood Specific Plan: Peak Overnight Population Estimate**

	Units (Est)	# BR's (Est)	Average Beds/ Bedroom	Average Pillows/ Bed	Peak Day Occupancy Rate	Population @ 100% pillow utiliz.	People per Occupied Unit @ 100% pillow utiliz.
Single family	392	3.2	1.0	1.8	95%	2258	5.8
Studio	111	1	1.2	1.8	95%	240	2.2
1BR condo	372	1	1.2	1.8	95%	804	2.2
2BR condo	349	2	1.2	1.8	95%	1508	4.3
3BR condo	142	3	1.2	1.8	95%	920	6.5
4BR condo	44	4	1.2	1.8	95%	380	8.6
service	3	1	1.2	1.8	95%	7	2.2
Total	1,413					6117	

Source: RRC Associates. Factors based on surveys and experience at western mountain resorts.

4.9.4 Relationship of Regulation and Zoning

Regulations found within the Plan are applicable to development within Kirkwood. Some of the regulations are applicable only to certain zoning categories, while others are more generic in nature and apply to all zoning categories. The approved final Specific Plan will be the defining document controlling land use in Kirkwood.

**TABLE 4.3
ZONING DESIGNATIONS AND ALLOWABLE LAND USES**

SYMBOL	ZONING DESIGNATION	ALLOWABLE LAND USES
SR	Single-Family Duplex Residential	<ul style="list-style-type: none"> * Single Family Dwelling * Duplex (when designated on Final Subdivision Map) * Home occupation (1) * Employee units (attached) * Ski lifts, cross-country ski trails and other recreational trails * Appropriately located effluent absorption beds
MF	Multi-Family Residential	<ul style="list-style-type: none"> * Condominium * Townhomes * Apartments * Employee Housing * Tri-plex and up * Appropriately located effluent absorption beds

MF-C	Multi-Family Residential and Commercial	<p><u>Residential</u></p> <ul style="list-style-type: none"> * Apartments * Townhomes * Condominiums * Tri-plex and up <p><u>Office and Related Uses</u></p> <ul style="list-style-type: none"> * Administrative, Clerical, Real Estate, Professional * Financial Institutions * Medical, Dental and related human services * Postal/Telegraph service offices <p><u>General Commercial Uses</u></p> <ul style="list-style-type: none"> * Food and Beverage Sales * Restaurant/Cocktail lounge/Night Club * Sale of Dry Goods * Catering establishments * Bakery * Delicatessen * Hardware/Sporting Goods/Equipment Sales/Rentals/Repairs * Drug Store/Pharmacy * Clothing Sales * Liquor Store * Ski School * Ski Rental * Barber or Salon Shops * Libraries/Civic Facilities * Conference Facilities * Day-care Facilities * Photo/Art Studio * Bowling Alley * Electronic Game Center * Theater/Movie House * Laundry * Gas Station/Auto Repair/Rental * Motel/hotel * Bed and Breakfast <p><u>Other</u></p> <ul style="list-style-type: none"> * Ski Mountain Operations * Appropriately located effluent absorption beds * Outdoor/Indoor Recreation Facilities * School/educational facilities
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S-P	Service Facilities and parking	<ul style="list-style-type: none"> * Sheriff Substation * Fire Station (with employee housing) * Day Care * Parks and Recreation Facilities * Wastewater Treatment and Distribution Facilities * Water Production, Treatment and Distribution Facilities * School (Amador Co APN# 026-270-018-000) (2) * Snow-making Facilities * Road and Slope (grooming) Maintenance Equipment and Facilities (ski mountain operations) * Telephone/Communication Facility * Power Generation/Conveyance Facilities * Construction-related Facility * Waste transit/storage * Library * Propane/Natural Gas Facilities * Cable Television Facilities * Transportation Facilities * Surface parking lots (does not include 6 acre school site) * Areas for Short Term recreational vehicle parking * Parking garages(does not include 6 acres school site) * Appropriately located effluent absorption beds
M	Meadow	<ul style="list-style-type: none"> * No development of permanent above-ground structures, excluding utility enclosures such as well pump enclosures and creek crossings (bridges) * Temporary structures on skids for winter activities * Maintenance of existing utility facilities * Maintenance of winter uses (trail grooming) * Trailhead markers
OS-R	Open Space and Recreation	<ul style="list-style-type: none"> * Outdoor recreational facilities (e.g., tennis courts, playing fields, playgrounds, park & recreational facilities)
OS	Open Space	<ul style="list-style-type: none"> * Recreational trails * Trailhead Markers * Outdoor recreational activities that do not lead to the degradation of the environment * Recreational trail development and use * Ski mountain operations and equipment (i.e., ski lifts) * Appropriately located effluent absorption beds

Notes to Table 4.3

(1) Typical "home occupations" are allowed. Should the occupation be a true 'business out of the home', such as a dentist's office, and not simply a telecommuter, then approval must be obtained from the appropriate County.

(2) Six (6) acre site deeded by KMR to Alpine County Unified School District for school use only. This does not preclude the use of the existing school located in Sun Meadows 4. In the event that a school is not constructed on the dedicated parcel and the area reverts to KMR or its successor, the parcel is restricted from any use or uses except parks and recreation facilities.

4.10 DEVELOPMENT CONTROLS

A variety of development controls are part of the Plan. First, a population estimate based on unit count and type and the associated land use designations, as shown in Table 4.2, is employed to control density. Second, mapped building envelopes are utilized to dictate the area suitable for development within a particular parcel. Third, to aid in minimizing negative visual effects, building heights are restricted for all structures. These items are reviewed for general architectural and site design elements by various design review and architectural control entities and other appropriate local, State, and Federal agencies. All controls are discussed in more detail below.

4.10.1 Population Estimate By Unit Type and Land Use

By the assignment of a population density by unit type, the developer will have flexibility to provide a mixture of residential unit types and sizes while staying within the allowable 6,558 population limit. At Kirkwood, density within particular parcels is considered as population potential and not necessarily a limit to a number of units per acre, thereby reducing the focus on maximizing the number of units that can be constructed on a site.

Kirkwood retained the services of RRC Associates, a firm experienced in the study and prediction of population trends in resort areas. RRC has analyzed Kirkwood’s plan and from surveys and experience developed a methodology to estimate population in the resort at buildout. The following factors are RRC’s recommendation to estimate ultimate population, based on unit type, size and assuming 100% pillow occupancy.

Single-family homes are counted at 5.8 persons per household.

The following population assignment calculations are for multi-family projects. A population count is assigned to the bedroom count for residential units as follows:

<u>Studio:</u>	<u>2.2</u>	<u>people per occupied unit</u>
<u>1 bedroom:</u>	<u>2.2</u>	<u>people per occupied unit</u>
<u>2-bedroom:</u>	<u>4.3</u>	<u>people per occupied unit</u>
<u>3-bedroom:</u>	<u>6.5</u>	<u>people per occupied unit</u>
<u>4-bedroom:</u>	<u>8.6</u>	<u>people per occupied unit</u>
<u>service</u>	<u>2.2</u>	<u>People per occupied unit</u>

(Factors developed by RRC Associates)

4.10.2 Building Envelopes

Building envelopes are identified at the time of the subdivision requests. For each single-family lot, building envelopes will outline the area that can be occupied by residential uses. Driveways are not included in building envelopes. The identification of

building envelopes for Kirkwood, as opposed to standard front, rear and side yard setbacks, allows new development to be more responsive to environmental constraints on each site and within proposed subdivisions. Topography, geophysical constraints, tree location and health, access from the road and theme for the subdivision are the main criteria used to define building envelopes.

The Village at Kirkwood poses an interesting challenge to development. Unlike a single-family subdivision with multiple lots and individual building envelopes, the Village is more precisely tied to the ground by actual building footprints, as found in the Kirkwood Village Plan, Figure 4.4. It should be recognized that during final design of a Village building, footprints may require adjustment, (up to 15% is permissible). Therefore, within the Village, individual buildings will be more constrained in the area which can actually be developed than in other single-family and multi-family subdivisions, due to the intimate relationship between all of the Village buildings and underground parking facilities.

4.10.3 Height Restrictions

Single-family/Duplex

Maximum height restrictions for Single-family/duplex residential zones (SR) is 35 feet from the base elevation to the highest point of the structure. The base elevation shall be taken as the average of the ground elevations at each of the four major house corners. Should a structure have more than four prominent corners, a rule of reason shall be employed to determine the base elevation. For lots with building envelopes that have a slope which exceeds 25% (building envelope only, not the entire lot), the maximum height shall be set at 40 feet from the base elevation. Should a proposed home be located within an existing subdivision that has no established building envelopes (i.e., Kirkwood Meadows West), the average slope shall be calculated for the area that would be built upon, i.e., the building site and not the entire lot.

Multi-family

For Multi-family residential and Multi-family and Commercial zones (MF, MF-C) (no proposed plaza deck), the maximum height restriction is 65 feet from the base elevation to the highest point of the structure.

For Multi-family and Commercial (MF-C) buildings located in the Kirkwood Village (east and west) wherein there is a proposed plaza deck, the maximum height restriction is 55 feet from the plaza deck to the highest point of the structure.

Amador County has set special height limits for multifamily and multifamily-commercial structures at the Timber Creek Lodge area and at the Ski-In/Ski-Out North area. Amador set maximum height of 45 feet above a plaza deck and 55 feet above grade level if there is no deck. Multi family structures in Ski-In/Ski-Out North shall have a maximum height of 45 feet if built in the area of the current Chair 9 parking area.

The height limit for Multi-family residential and Multi-family and Commercial zones shall be calculated using the maximum possible distance from the base elevation to the highest point of a structure, except that:

- Chimneys, flues, vents or similar structures may extend up to ten feet above the specified Maximum Height Limit;
- Spires, bell towers and like architectural features may extend over the specified height limit, however, however a special use permit shall be required by Tri-TAC and approved by the appropriate County.

Any deviation from these height restrictions would require a variance from the appropriate County. Variance applications shall require review and recommendation from TCTAC. Separate review and approval may be required pursuant to CC&R's and other architectural review and control guidelines.

4.11 PAOT/SAOT

4.11.1 Wintertime PAOT/SAOT

Recreational planning often refers to PAOT (people-at-one-time) and SAOT (skiers-at-one-time) for placing limitations on the number of people allowed in an area of concentrated recreational use. The 1973 EIS for the Kirkwood Winter Sports Development and the 1974 EIR for the Kirkwood Meadows Ski Development, established a PAOT and SAOT for wintertime use. For the public and private lands of Kirkwood, 11,800 PAOT are allowed and 10,800 SAOT are allowed. Currently, KMR does not foresee requesting a change in either of these limits.

4.11.2 Summertime People-at-one-time

One of the main objectives of the Plan is to create a more uniform, year-round use of the resort. Therefore, the summer PAOT limitation is increased to accommodate the final maximum buildout overnight population of 6,558 people, as well as to accommodate the increase in special event participants and spectators of summer activities in the Kirkwood Valley. An integral part of the Kirkwood Summer Programs is attracting events, such as concerts and craft festivals. These types of events necessitate an increase in the current summer PAOT to accommodate peak visitation during in-valley day visitor events.

A dual summertime PAOT, (baseline and peak) to cover the private lands of Kirkwood is established. A baseline PAOT for Kirkwood shall be set at 6,558 PAOT. A day summer peak PAOT to accommodate special events, and Kirkwood residents at 100 percent occupancy, is 9,800 PAOT. Special event permit(s) from the appropriate county will be required for many events. The peak PAOT is only allowed for the duration of the special event. After the event, the baseline PAOT of 6,558 prevails.

4.12 DESIGN STANDARDS

The design standards, contained in the Plan as Appendix 4, form the foundation of the design elements that are applicable to a development at Kirkwood.

When accepted, these standards are enforceable by the county, as they are intended to be ordinances of Alpine, Amador and El Dorado counties.

CHAPTER 5 – TRANSPORTATION, PARKING, SOLID WASTE AND OTHER PUBLIC SERVICES

INTRODUCTION

This chapter of the Plan addresses the following: transportation and parking; solid waste and recycling services; fire and police protection; emergency medical services; telecommunication service; school and child care facilities; library services; snow removal and avalanche control; and easements.

5.1 TRANSPORTATION

5.1.1 Objectives for Transportation

1. Encourage non-auto transit within Kirkwood by placement of commercial uses within walking distance of residences.
2. Encourage public transit use from outside of Kirkwood, especially from populated areas such as South Lake Tahoe.
3. Promote electric vehicles, bicycles, horseback riding, and pedestrian activity by designation of trails/routes for such use.
4. Provide an efficient transportation system within Kirkwood for motorists, pedestrians, bicyclists and horseback riders in a way that minimizes congestion and conflict between different modes of transit.

5.1.2 Policies for Transportation

1. Kirkwood Meadows Drive shall remain the main access road to and through Kirkwood.
2. Pavement widths shall be minimized, consistent with safety considerations, to improve the visual appearance and scale of street corridors, especially within neighborhoods.
3. Driveways serving individual homes may be accessed from collector roads, but may not intersect State Route 88.
4. A street (cul-de-sac) may serve no more than 50 single-family homes with a single point of access.
5. Up to five residential units may be served by a private driveway.
6. Applicable county and state requirements for fire protection plans related to cul-de-sacs shall be met.

7. Speed limits shall be established for all local roads within Kirkwood to maximize safety and shall account for design speed, sight distance, adjacent land uses and street function.

8. Design of future streets (subdivisions), parking areas and driveways shall include snow storage areas.

9. Employee shuttle service routes shall be provided to employees of Kirkwood Mountain Resort, provided they are scheduled to work that day.

10. An on-site shuttle service shall be provided to transport visitors/residents and employees between various destinations within Kirkwood. When occupancy of the valley provides a sufficient population to support such a service in the summertime, this in-valley shuttle service will be expanded.

11. Safe and convenient bus stop facilities shall be provided near the Village Center and at other central parking locations to encourage the use of the shuttle service.

12. Bus pullout areas shall be provided, where appropriate, to minimize conflicts with vehicular/pedestrian traffic.

5.1.3 Public Transportation

Due to its isolation from other urbanized areas and its relatively small size, Kirkwood does not lend itself to the use of significant public transit except for a local "in-valley" shuttle service and an employee shuttle system, described below. The in-valley shuttle is in service during the wintertime. As summer occupancy of the resort increases, this in-valley shuttle system can be operated during the summer season, and if needed, during special events.

A privately owned business currently buses patrons from South Lake Tahoe hotels to Kirkwood during the winter ski season. Although this service can change from year to year, depending on market conditions, it will be encouraged by KMR in the future.

5.1.4 Employee Shuttle System

In addition to on-site employee housing, KMR operates an employee shuttle service. This service is available and primarily utilized during the ski season by the seasonal employees of KMR. During the summer, the shuttle service is available to employees on a more limited basis. This service is limited to employees who are scheduled to work that day.

KMR has elected to provide this service and/or other subsidy to assist employees who elect to live outside of Kirkwood. KMR's employee programs will keep pace with the increase in commuter employees as the resort continues to grow.

5.1.5 Road Classification and Standards

Kirkwood has one major Residential Collector-street (Kirkwood Meadows Drive) with numerous local residential streets that feed into Kirkwood Meadows Drive. Kirkwood is accessed by State Route 88, a two-lane state highway maintained by CalTrans. Table 5.1 includes the road classifications applicable to Kirkwood, excluding the state highway.

**TABLE 5.1
KIRKWOOD ROAD CLASSIFICATIONS AND STANDARDS**

Road Type	Right-of-Way(1)	Number of Lanes	Access Control	Capacity (vehicle/day)	On-Street Parking
Residential Collector	62'	2	Intersections at grade driveway access	7,000	On shoulder of road
Local Residential Type I	45'-54'	2	Intersections at grade; driveway access	300	In designated parking bays only
Local Residential Type II	49-58'	2	Intersections at grade; driveway access	600	In designated parking bays only

Notes to Table 5.1:

(1) Right-of-way includes all public land (if Offer of Dedication has been accepted by the respective County) within the street boundaries including roadway median, walks, paths and landscaping.

5.2 PARKING

5.2.1 Objectives for Parking

1. Provide adequate parking for residents and day visitors alike.
2. Create unique designs for parking lots for multiple uses when parking requirements are low.
3. Minimize large expanses of unnecessary surface parking.
4. Adequately screen parking facilities from public view, where practical, without interfering with snow removal activities.
5. Minimize congestion at Kirkwood by providing adequate parking areas in appropriate locations.

5.2.2 Polices for Parking

1. Parking shall be governed by the Kirkwood Master Parking Plan as amended from time to time. The current plan provides parking for approximately 2,500 day visitor vehicles. Parking shall be concentrated in surface parking areas and/or parking structures as a means of promoting a pedestrian-oriented community. During winter months, shuttle service shall be provided to/from parking areas.
2. Parking areas for employees shall be designated and served by a shuttle to transport employees to their destination, especially during winter months.
3. Surface parking areas shall include locations for shuttle service.
4. Off-street parking may be covered, but in no event is covered parking a requirement for day visitors and designated passenger loading and unloading areas.
5. Covered parking facilities may include parking as well as space for garbage receptacles, recycling facilities, mechanical rooms, fire equipment rooms, ventilation equipment and other reasonable uses.
6. Permanent on-street parking shall be prohibited on local collectors (excluding Kirkwood Meadows Drive), and shall be restricted to parking bays provided in residential areas for visitor parking, unless a “special parking” permit is obtained from the appropriate entity.

5.2.3 Parking Standards

Parking demand at Kirkwood is most significant during winter months when skiing activity is at its peak. For this reason, Kirkwood has developed a number of large surface parking areas that are in the vicinity of ski lifts.

Off-street parking is available for individual residences and condominium buildings. It is this Plan's intent that adequate parking continue to be available to serve both residents and visitors alike. Parking standards are summarized below in Table 5.2. Minimum parking requirements are identified for specific land uses, with the goal of protecting the rural quality of Kirkwood by avoiding unnecessary expanses of paved parking areas, and at the same time meeting the demonstrated parking demand.

5.2.4 Covered Parking

The following standard applies to multi-family development projects. Covered parking shall be required per the requirements outlined in Table 5.2 of this document. Of these required spaces, at least 80% of the parking spaces within the covered parking garage shall be regular, single-loaded (non-tandem spaces). Ten percent (10%) of this 80% can be compact. 20% of the total parking spaces may be tandem (double loaded, valet style). Fifty percent (50%) of this 20% may be compact.

Covered parking need not be satisfied on-site so long as the spaces are reserved to the development in the parking plan, all parking requirements are met and the distance from the parking facility to the residential units is not unreasonable, burdensome or a valet service is provided.

5.2.5 Surface/Uncovered Parking

Approximately 2,500 surface outdoor parking spaces are available on a daily basis at Kirkwood. KMR anticipates expanding parking facilities to allow for a potential 3,100 parking spaces, however, a percentage of these spaces will be restricted in use due to the off-site uncovered parking requirements generated by multi-family development. It is required that, under buildout conditions, 2,500 surface, uncovered parking spaces will be available on a daily basis for patrons who are not staying overnight in Kirkwood.

**TABLE 5.2
MINIMUM PARKING REQUIREMENTS**

LAND USE	total parking spaces req'd per unit	covered	Uncovered (note 3)
Residential Uses			
Single-family/Duplex	3	2	1
Multi-family-studio	1	1	
Multi-family1&2 bedroom	1.5	1	.5
Multi-family3&4 bedroom	2	1.5	.5
Hotel/Motel	1		1
Bed and Breakfast	1		1
Employee Housing	1		1
Employee housing Hostel/dormitory units	1/bed	optional	1/bed
Commercial Uses (note 1)			
Retail, Customer Services	1 space per 1000 sq. ft. of net		
Food and Beverage,	floor space (note 2)		
Medical Services, Educational and Child-care services,			
Group Assembly (community and/or religious services)	¼ (25%) of seating capacity (occupancy)		

Notes to Table 5.2

1. Parking for non-residential uses shall not be required in the immediate vicinity of the proposed commercial use. Parking for non-residential uses will be concentrated in either a surface parking area or a parking structure.

2. Parking for commercial uses is provided/reserved for employees only. Parking for patrons of commercial businesses is provided for through temporary parking and/or day skier parking lots.

3. Required uncovered parking is allowed to be accommodated by covered spaces.

5.3 SOLID WASTE AND RECYCLING SERVICES

5.3.1 Objectives for Solid Waste and Recycling Services

1. Ensure adequate solid waste removal service while maximizing opportunities for recycling to reduce the amount of waste requiring disposal at a landfill.
2. Provide easily accessible recycling facilities at Kirkwood for residents, patrons and businesses.
3. Assist Amador, Alpine and El Dorado counties in meeting waste reduction and diversion goals established by the State of California.

5.3.2 Policies for Solid Waste and Recycling Services

1. New commercial and mixed-use development shall incorporate facilities for solid waste and recycling.
2. Areas at Kirkwood shall be provided to allow residents to dispose of recyclable materials where pickup can occur by the waste hauling service.
3. Receptacles shall be clearly marked to encourage recycling of appropriate materials such as aluminum and glass.
4. Administrative offices at Kirkwood shall include facilities for recycling waste paper.
5. Post Office facilities shall include recycling facilities for waste mail.
6. Solid waste receptacles such as dumpsters shall be managed to minimize damage by animals (bears) and snow removal equipment and to reduce litter at Kirkwood.
7. Litter shall be minimized by the placement of adequate trash and recycling containers in high-use traffic areas.

5.3.3 Solid Waste Hauling

A private contractor or appropriate government entity will be used to haul solid waste from Kirkwood. Solid waste from Kirkwood will be shipped to an approved landfill.

5.4 FIRE PROTECTION SERVICES

5.4.1 Objectives for Fire Protection Services

1. Ensure adequate emergency access to all future development.
2. Provide adequate volunteer and/or paid fire-fighting staff to serve future development

within a reasonable emergency response time.

5.4.2 Policies for Fire Protection Services

1. Tentative and Final maps for future subdivisions shall identify emergency vehicle access.
2. Adequate snow removal and storage procedures for all roads and driveways shall be ensured, as provided for at the Tentative map stage to allow emergency access.
3. Future development plans should be reviewed by the KVFD to ensure that adequate access and fire protection measures are incorporated into site planning and design.
4. An automatic fire suppression (sprinkler) system shall be required in all buildings located within the Village Center, commercial occupancies, all multi-family structures of 3 or more units and all single family residences of more than 5,000 square feet.

5.4.3 Kirkwood VFD

Structural fire protection services are provided at Kirkwood by the Kirkwood Volunteer Fire Department (KVFD) under the direction of the KMPUD. These volunteers are available on a year-round basis. Regular training meetings are held and include drills and specialized training through the fire chief and outside fire fighting experts. Subjects emphasized have included propane hazards, fire fighting in multi-story structures and forest fire suppression.

The KMPUD and KVFD have completed a Fire Service Master Plan (FSMP) for the Kirkwood Community. This FSMP analyzed the existing conditions at Kirkwood as they pertain to issues relevant to the Fire Department. A series of recommendations and goals came out of this document. A timeline for capital improvements and expenditures, as well as recruitment of paid and volunteer staff was also developed. The new Community Services Building and Firehouse is a direct result of the recommendations of this plan. The KMPUD Fire Service Master Plan may be reviewed at the District's office.

5.4.4 KVFD Support

Backup for the KVFD is provided by a number of different agencies depending upon the situation and how many firefighters are required. Amador Fire Protection District responds by request for backup to all calls for KVFD. KVFD automatically receives backup from the Markleeville and Woodfords VFD's. Lake Valley Fire Department in Meyers, California is also notified for response to Kirkwood.

The U.S. Forest Service (USFS) provides wildland fire response in the Kirkwood vicinity from its Lumberyard station, about 16 miles west of Kirkwood on SR 88. The second responding station is the joint California Department of Forestry (CDF) and USFS station located at Dewdrop about 27 miles west of Kirkwood. This station is manned by

the USFS during the summer.

5.4.5 Fire Protection Service Charge

The KMPUD has established a Fire Protection Service Charge, Ordinance 93-1. Funds collected from the annual charge are used to cover equipment, insurance, personnel costs and will also help to begin a fund for expansion. An Impact Fee is also levied on new development within Kirkwood. In Alpine County this fee is collected at the time that the building permit is approved by the Alpine County Building Department (Ordinance 539-92). In Amador County, KMPUD collects this fee directly (Ordinance 1319). In El Dorado County, no such fees have been levied because the County has not established an ordinance to do so. In the future, when the private landholdings located in El Dorado County are developed, there will be the need to establish this fee.

In addition to these funding sources, the KMPUD is apportioned approximately 20 percent (20%) of the tax base allocation from the respective counties (Amador, Alpine and El Dorado) within the District boundaries.

5.4.6 Fire Prevention

The use of fire prevention and detection systems has been and will continue to be required. Multi-family housing with three or more units, parking garages and commercial spaces are required to be sprinklered. Single family homes greater than 5,000 square feet are also required to be sprinklered. Smoke detection and heat sensitive devices will be utilized in dwelling units and enclosed common spaces and emphasis will be placed on using fire-resistant construction materials whenever appropriate.

5.4.7 Village Fire and Safety Plan

The objective of the Kirkwood Village Fire and Safety Plan is to insure the safety of guests and staff from fire and protect property located in the Village Center. To accomplish this objective, a management supported fire prevention plan has been implemented. This provides for: 1) installation of automatic fire sprinkler protection, 2) installation of automatic fire detection, 3) fire safe building construction, 4) appropriate building separation, and 5) strategic placement of on-site fire suppression resources. Other emergencies, although not directly addressed by the Village Fire and Safety Plan, such as medical emergencies can be responded to using the underground garage which provides vehicle access to all buildings.

5.5 POLICE PROTECTION SERVICES

5.5.1 Objectives for Police Protection Services

1. Maintain public safety and cooperate with Alpine, Amador and El Dorado County Sheriff's departments to facilitate law enforcement activities.

2. Provide existing and future development at Kirkwood with adequate police protection services to protect public health and safety.

5.5.2 Policies for Police Protection Services

1. Ensure that all new residential and commercial development designs lend themselves toward public safety and police protection.

2. A Sheriff's sub-station shall be located in Kirkwood within the KMPUD Community Services Building or other location as may be determined by the Resort and appropriate authorities.

5.5.3 Alpine and Amador County Sheriff

Kirkwood is served by Alpine and Amador counties for police protection depending upon the county in which an incident occurs. Police protection for any incident along SR 88 is the responsibility of the California Highway Patrol. Deputy Sheriffs from Alpine and Amador counties patrol the area at various times. The El Dorado and Alpine County Sheriffs have a written agreement, wherein an Alpine County deputy sheriff will respond to disturbances north of SR 88 (El Dorado County) in exchange for jail space located at the El Dorado County offices/jail in South Lake Tahoe (Veatch, 1996).

5.6 MEDICAL SERVICES

5.6.1 Objectives for Emergency Medical Services

1. Provide basic medical services to meet the needs of existing and future residents, employees and visitors of Kirkwood.

2. Assist county medical providers with services rendered to existing and future residents, employees and visitors of Kirkwood.

5.6.2 Policies for Emergency Medical Services

1. Kirkwood Mountain Resort shall continue to maintain medical facilities during the ski season to serve those requiring emergency medical services.

2. Clinical services shall be expanded, if necessary, to accommodate the increased number of skiers at buildout.

3. The provision of year-round medical services shall be investigated as the year-round resident population increases at Kirkwood.

5.6.3 KMR Emergency Medical Clinic

KMR contracts with private contractors to operate an immediate care medical clinic in the Red Cliffs Lodge. During the ski season, the clinic is staffed with a registered nurse,

X-ray technician and doctor from 8:30 AM to 4:30 PM. An average of 800 patients are treated yearly at the clinic, primarily for orthopedic injuries. Of these, about eight are referred to the hospital each month. During the non-ski season, the emergency medical clinic is not operated at Kirkwood.

The nearest hospital to Kirkwood is Barton Memorial Hospital in South Lake Tahoe, about 38 miles northeast of Kirkwood via SR 88, SR 89 and US Hwy. 50. Three additional hospitals which also serve Kirkwood, are Washoe Medical Center and St. Mary's Hospital, both located in Reno, Nevada and Carson Tahoe Hospital in the Carson City area. During the ski season, a landing area is maintained near the medical clinic for helicopter access in cases where a seriously injured skier needs immediate hospital care.

The existing medical facility and service is provided and subsidized by KMR as a requirement of the Special Use Permit with the USFS and is not intended to offer community medical needs.

5.7 TELECOMMUNICATION SERVICES

5.7.1 Objectives for Telecommunication Services

1. Provide telecommunication services to the existing and future community of Kirkwood.
2. Expand telecommunication services as residential and commercial development needs grow.

5.7.2 Policies for Telecommunication Services

1. Maintain existing telecommunication microwave link in proper working order.
2. Maintain existing satellite link and underground cable connections.
3. Plan for foreseeable expansion of Kirkwood by upgrading and/or extending existing services.

5.7.3 Telephone Service

Volcano Telephone Company of Pine Grove, California, a small, private telephone company, supplies telephone service. Service is provided through a fiber optic line connecting Kirkwood with Volcano Telephone Company in Pine Grove, California. Telephone service within Kirkwood is provided via underground cable. Volcano Telephone has the capability and desire to serve Kirkwood as it continues to grow.

Cellular telephone service is available within the valley of Kirkwood. It is anticipated that with the installation of an additional antenna, located at the top of Chairlift 2, service will be more consistent, and has the potential of reaching beyond the Kirkwood valley,

to areas along State Route 88.

5.7.4 Cable Television Service

Volcano Vision provides cable television service to the developed areas of the Kirkwood community. Cable programs are transmitted through Volcano Telephone Company's fiber optic line from Pine Grove, California to Kirkwood. Distribution lines are buried in road rights-of-way and other easements as necessary.

5.8 SCHOOL AND CHILD CARE FACILITIES

5.8.1 Objectives for Education

1. Provide quality education for children of the Kirkwood community, as well as childcare for visitors and residents.
2. Expand educational programs and facilities as demand dictates.
3. Provide childcare services for the community and patrons of Kirkwood.

5.8.2 Policies for Education

1. Ensure that adequate school facilities, which meet all applicable State regulations, are provided.
2. When appropriate, an elementary school should be constructed at Kirkwood at the site already deeded to the Alpine County Unified School District.
3. Childcare shall be available year-round, as need dictates, for visitors, employees and residents of Kirkwood.

5.8.3 Current School Conditions

School facilities for Kirkwood area residents of Amador and Alpine counties are provided by the Alpine County Unified School District (ACUSD). The ACUSD currently leases half (½) of the bottom floor of the Sun Meadows IV condominium in Kirkwood for a school used by about twelve (12) K-6 students (Peets, 1996). The ACUSD has been deeded a six-acre parcel located at the edge of Kirkwood Meadow near Loop Road. Should demand dictate and the funds become available, this location will house a new school facility. Unless major State construction funds become available, the ACUSD will continue to lease space at Kirkwood at no or minimal cost. Bussing while possible is not the preferred system by the ACUSD, especially for children from Kindergarten through the sixth grade. Students in grades 7 to 12 are currently bussed to the Douglas County School District in Nevada under an agreement with the Alpine County School District.

5.8.4 Projected School Requirements At Buildout

At full buildout, it is estimated that 52 elementary school age (grades K-8) and 23 high school age children may reside in Kirkwood, as indicated in Table 5.3. This projection is consistent with the current situation in Kirkwood and allows for a linear increase in the percentage of school age children as it relates to the current level of development. However, as a resort community, only a small percentage of the 6,558 person maximum population will be permanent residents. As a result of the relatively small percentage of permanent residents, the number of school children is expected to remain very small when compared with the maximum population allowed in Kirkwood. As of January 2002, there are only seven kindergarten through sixth grade students and zero high school students residing in Kirkwood.

**TABLE 5.3
MAXIMUM ESTIMATED SCHOOL CHILDREN AT BUILDOUT FOR FULL-TIME
RESIDENTS**

Unit Type	No. of Units(2)	Grades K-6	Grades 7-8	Grades 9-12	TOTAL
Single-Family	39	15.6	3.9	7.8	27.3
Multi-Family	93	25.11	7.44	14.88	47.4
TOTAL	132	40.7	11.34	22.68	74.7

Notes to Table 5.3

(1) Student yield factors were as follows: single-family units: a) K-6: 0.40 students per unit; b) Grades 7-8: 0.10 students per unit; c) Grades 9-12: 0.20 students per unit. Student yield factors for multi-family units were as follows: a) K-6: 0.27 students per unit; b) Grades 7-8: 0.08 students per unit; c) Grades 9-12: 0.16 students per unit. Due to the resort nature of Kirkwood, it was assumed that no more than 15 percent of future single-family and 10 percent of future multi-family units would be occupied year-round.

(2) Number of units is the number of units (10%) that are anticipated to be occupied year round by families with school aged children. It is recognized that the demographics of Kirkwood may vary significantly. The foregoing estimates are therefore the maximum expected.

5.8.5 Library Services

The Alpine County Library provides a mobile library service for Kirkwood residents to check out books and return them to the mobile service. At some point in the future, Kirkwood may want to develop a permanent library facility, possibility in conjunction with the school, or as part of a community center.

5.8.6 Current Child Care Facilities

KMR operates a day care business, located adjacent to Red Cliffs Day Lodge. It currently offers supervision of small children seven days a week, during the winter months only. As is expected, during the weekend this facility is full, with less business during the week. This service is offered on a first come first served basis, and typically only toddlers are enrolled. This service is offered at a discount to employees of KMR.

5.8.7 Child Care Facilities Expansion

As development at Kirkwood continues, it is likely that this service will need to be expanded to accommodate more children. Expansion of this facility would require the acquisition of more floor space, either within the existing building, or relocated to another. More staff would also need to be hired to equitably supervise the children enrolled. Expansion of this facility would require the re-licensing of the operation to accommodate an increase in enrollment.

5.9 SNOW REMOVAL AND AVALANCHE CONTROL

5.9.1 Objectives for Snow Removal and Avalanche Control

1. Provide snow removal ensuring adequate ingress and egress in the winter season.
2. Provide “basic needs” snow removal for the operation of skiing facilities.
3. Ensure against accidents and injury due to avalanches.

5.9.2 Polices for Snow Removal and Avalanche Control

1. Kirkwood Mountain Resort shall maintain control over snow removal activities as required for ski area activities and associated parking lots. Kirkwood shall maintain and amend as necessary, a Master Snow Removal Plan for KMR operations.
2. The Kirkwood Resort Master Owners Association will control or contract snow removal for the Village Plaza areas and Kirkwood Meadows Drive.
3. Snow removal for private roads, drives and parking lots may be provided by the Kirkwood Resort Master Owners Association, KMPUD, the county of concern or any other appropriate entity.
4. Adequate safeguards for the public and residents of Kirkwood shall be provided during avalanche hazards, i.e., KMR does not allow patrons of Kirkwood to load a chairlift or access the mountain without clearance from the ski patrol.
5. New development shall be located outside of avalanche hazard zones based on avalanche studies by qualified personnel, however access roads are allowed within known avalanche zones.

5.9.3 Snow Removal

The Kirkwood Resort Master Owners Association (KRMOA) has been given the responsibility for snow removal along Kirkwood Meadows Drive and the Village Plaza areas. It may also contract snow removal services for the other homeowner’s associations found at Kirkwood. Should an individual HOA choose not to contract with

the KRMOA, it will be up to that individual association to privately contract with an independent entity for snow removal services. At present, Alpine, Amador and El Dorado counties do not provide funding for snow removal for the Kirkwood Community.

5.9.4 Avalanche Control

Avalanche control activities are designed to maintain the safety of skiers and residents alike. Avalanche control is carried out by specially trained personnel in cooperation with the USFS. No high use activities or residences are intended to be sited within known avalanche hazard areas. KMR completed avalanche/rockfall hazards analyses utilizing a qualified expert. This study identified potential hazard areas in locations subject to future development (Mears, 1995 and 1997). The studies may be reviewed at the Alpine County Planning Department in Markleeville, California.

5.10 EASEMENTS

5.10.1 Objectives for Easements

1. Maintain adequate easements for utility construction and maintenance, recreation and snow removal activities.

5.10.2 Policies for Easements

1. Existing easements shall be maintained and protected during future construction.
2. Additional easements, as necessary, shall be identified for future utility line needs, recreation and snow removal activities.
3. Whenever possible, easements shall serve a dual purpose by being available for public recreational purposes (i.e., hiking or riding trails).

5.10.3 Easements

It is desirable to maintain adequate easements for the installation, upgrade and maintenance of utilities. Existing easements within the private lands of Kirkwood are primarily for water, wastewater, power lines, communications, recreational access and drainage paths. The USFS has access easements that cross through Kirkwood private lands onto national forest land.

It is imperative to maintain snow removal/storage easements for the equitable and efficient removal of snow from streets and parking areas for the residents and visitors of Kirkwood. A system of dedicated snow storage easements will be maintained, ensuring that adequate area exists to maintain basic access even in severe winter conditions.

CHAPTER 6 – INFRASTRUCTURE: SEWER, WATER, GAS, ELECTRIC SERVICES AND PARKS AND RECREATION

INTRODUCTION

This chapter of the Plan outlines water and sewer services provided by the Kirkwood Meadows Public Utility District, gas and electric services provided by Mountain Utilities and recreational facilities and programs. Projections for expansion of infrastructure to serve the resort at buildout are analyzed individually. The anticipated expansion of these facilities is discussed individually. Recreational facilities and programs are discussed at the end of this chapter.

6.1 WATER AND WASTEWATER

The Kirkwood Meadows Public Utility District (KMPUD) was formed by the Alpine County Local Agency Formation Commission (LAFCo) in June, 1985. Presently, the KMPUD is responsible for the operation of the water and wastewater systems serving the community of Kirkwood and the operation of the Kirkwood Volunteer Fire Department (KVFD), mosquito abatement, maintenance of existing public parks and recreational facilities (e.g. the tennis courts and playground), and contracts for solid waste removal. The KMPUD may become responsible for other public services in the future.

6.2 DOMESTIC WATER SUPPLY

6.2.1 Domestic Water Supply Objectives

1. Provide Kirkwood with an adequate year-round water supply that meets all applicable State water standards.
2. Explore alternative domestic water supplies.
3. Maintain a high quality water supply.

6.2.2 Domestic Water Supply Policies

1. Water supply shall be under the jurisdiction of the KMPUD, a public entity responsible for ensuring an adequate water supply that meets all standards.
2. The boundaries of the KMPUD shall follow the outline of the current private land holdings within the Kirkwood area. Any expansion of these boundaries shall require an annexation process and approval by the following entities: 1) Local Agency Formation Commission (LAFCo) in the county which the expansion is proposed, (Alpine, Amador or El Dorado County), and 2) the KMPUD Board of Directors.
3. Water conservation methods shall be incorporated in all new construction.

4. The KMPUD shall be responsible for ensuring that an adequate water supply is available to serve all proposed development
5. Water supply shall continue to be, but is not limited to, groundwater sources and wells operated by the KMPUD. Wells sufficient to meet the maximum daily demand shall be constructed to ensure the demand can be met with the largest well out of service.
6. Water supply pressure shall be adequate for domestic, commercial and fire-fighting purposes. Booster pumping will be used in the event gravity cannot sustain proper pressure and flow.
7. Water demand projections shall be compared to actual water usage figures, based on annual monitoring by the KMPUD. If actual usage exceeds projections, a review would occur by the KMPUD to determine whether mitigation measures are required to reduce overall water demand or to increase supply.
8. An efficient system of water lines shall be developed to minimize ground disturbance in the overall Kirkwood area. Whenever possible, water lines shall be located under proposed/existing roads and road rights-of-way.
9. Water treatment and storage facilities shall be sited, designed and landscaped to avoid and minimize visual impacts.
10. Xerophytic landscaping (low-water-consuming) shall be incorporated into all public areas and shall be encouraged for private areas, as recommended by the Landscaping and Revegetation Ordinance.
11. Sufficient water storage facilities shall be constructed to meet the following criteria:
 - a. Emergency storage: not less than 130 percent of the maximum daily demand.
 - b. Operational storage: not less than 25 percent of maximum daily demand.
 - c. Fire flows: as recommended by the fire marshal, subject to KMPUD approval.
12. Water supply for snowmaking shall be the responsibility of KMR.

6.2.3 Water Facility Locations and Capacities

Presently, there are approximately 633 equivalent dwelling units (EDUs) connected to the water system. For water planning purposes, it was estimated that 1,757 equivalent dwelling units would be connected to the water system under buildout conditions. With present patterns of use, maximum daily demands at buildout would be 320,000 gallons per day based on 1,757 EDU's, with a maximum daily demand of 182 gallons per day per unit. (Note: The projected number of residential units at buildout is 1,413 units).

Domestic water is supplied by five groundwater wells. Well 2, the Lodge Well, is located at the southeast edge of Kirkwood Meadow. Well 3 is located on the southwest edge of Kirkwood Meadow, Well 4 is located on the eastern shoulder of Kirkwood

Meadow and Well 5 is located approximately 280 feet south of Well 4 (see Figure 6.1). Well 1, used for emergency standby only, is located east of the end of Hawkweed Way, in the Kirkwood Meadow. Well yield during fall and winter months for Wells 2 and 3 is about 83 gallons per minute (gpm) combined, while the yield for Well 1 is about 40 gpm. Well 4 was installed during the summer of 1998. Well 5 was installed in the summer of 1999. The combined capacity of Wells 4 and 5 ranges between 70 and 100 gpm.

Water from Wells 2, 3, 4 and 5 is disinfected with sodium hypochlorite and pumped into the distribution system. The existing system includes two storage tanks with a combined capacity of 950,000 gallons. These tanks are located on the lower slopes of the ski mountain above the community (Figure 6.1), thereby providing more than adequate pressure to all dwellings.

Water from the wells is pressurized to approximately 150 pounds per square inch (psi) and pumped into the distribution system. The existing system consists of about five miles of pipelines ranging from six to ten inches in diameter. These lines are primarily located within existing roadways on the east and west sides of Kirkwood Meadow. South of the existing KMPUD offices, pipelines are located at the meadow edge and run under Kirkwood Meadows Drive to serve Timber Creek Lodge, (western edge of Kirkwood) and the Red Cliffs Lodge (south end of Kirkwood).

Average annual domestic water demand at Kirkwood is about 45,000 gallons per day (GPD) (see Table 6.1). Maximum daily demands occur during Christmas and New Year's. That demand typically approaches 109,000 gallons per day. This demand may last for several days. Current yearly demand is 48 acre-feet and is projected to reach 167 acre-feet upon buildout of the Plan. Water quality monitoring of the wells used for domestic water supply indicates that the water quality meets or exceeds the required standards.

6.2.4 Ground Water (Aquifer)

The groundwater basin below Kirkwood Meadow provides a portion of the domestic drinking water for Kirkwood.

The deeper wells are not drawing from the alluvium but penetrate fracture systems developed in basement rocks below the alluvial deposits.

The recharge of groundwater to the alluvial aquifer is primarily from surface water runoff, which is contained in the snowpack (typically 90 percent of the annual runoff). This snow pack runoff occurs primarily during April, May, June, and July. Other months of the year provide a lesser percentage of the approximately 5,660 acre-feet average annual runoff from the watershed. Minimum runoff under drought conditions is estimated at 1,869 acre-feet. This watershed encompasses 2,265 acres. The storage volume of the aquifer is about 1,100 acre-feet with surplus water exiting the basin via Kirkwood Creek and/or evapotranspiration. Recharge of the fracture-based bedrock wells is not well understood and likely comes from interconnects to significant local faults and fractures.

6.2.5 Domestic Water Supply Expansion

To satisfy additional water demands, KMPUD plans to follow a staged construction plan with the following elements:

1. The total existing storage capacity is 950,000 gallons which exceeds projected storage requirements at buildout. Storage requirements at buildout are estimated at 932,000 gallons per day based on providing 430,000 gallons of emergency storage, 82,000 gallons of operational storage and 420,000 gallons for fire protection.
2. Future water supplies will come from shallow or deep aquifer groundwater, with treatment provided, if necessary, to comply with water quality regulations. At buildout, well supplies totaling 220 gallons per minute (gpm) with the largest well out of service will be required to meet maximum daily demands. Preliminary plans call for each well to have treatment facilities, including filtration. The treatment facilities shall be constructed so they could be adapted to a future source of supply from Caples Lake, if this supply became available and preferred in the future.
3. Future wells will be constructed as growth occurs in general conformance with the following policy: A new well will be connected to the system when the maximum daily demand exceeds available supply, with the largest well out of service. Such that emergency storage reserves would be depleted in seven days should demand continue at the maximum rate.
4. Should municipal water rights be pursued and acquired by the KMPUD for Caples Lake, or other source that supply would supplement the existing water supply (wells).

6.3 WASTEWATER FACILITIES

6.3.1 Objectives For Wastewater Treatment Facilities

1. Treat wastewater from all Kirkwood areas at a local treatment plant that meets all applicable standards and avoids adverse impacts to public health and safety.
2. Explore alternate wastewater treatment methods.
3. Explore methods of reducing overall influent flows.

6.3.2 Policies For Wastewater Treatment Facilities

1. Wastewater shall be transported via pipeline in an efficient underground manner that minimizes land disturbance.
2. Wastewater collection and treatment facilities shall be designed to protect the health and safety of residents.
3. Wastewater treatment plant expansion shall occur to ensure that adequate capacity

is available at buildout.

4. Any wastewater treatment facilities (i.e., lift/pump stations, storage tanks), shall be sited, designed and landscaped to minimize visual impacts.
5. Development should normally be located to allow for gravity flow of wastewater and minimize the need for pumping wastewater to treatment facilities, thus reducing overall energy requirements.
6. All treated effluent disposal shall meet the discharge requirements established by the Central Valley Regional Water Quality Control Board (CVRWQCB).
7. Wastewater sludge shall be appropriately disposed, in accordance with applicable regulations. Sludge reuse options should be investigated by KMPUD.

6.3.3 Existing Wastewater Treatment Plant

The sanitary sewer system serving the Kirkwood community consists of gravity-flow sewage collection lines and two lift stations, which transfer the sewage to the Wastewater Treatment Plant (WWTP) (see Figure 6.1). The WWTP includes primary screening, activated sludge biological treatment, chemical coagulation and filtration and discharge into effluent absorption beds.

Operation of the WWTP is regulated by permit under the jurisdiction of the California Regional Water Quality Control Board, Central Valley Region (CVRWQCB). Kirkwood is an environmentally-sensitive area, therefore, the wastewater discharge permit is stringent and requires ongoing weekly sampling and analysis of Kirkwood Creek to determine the effects, if any, that may be occurring in the water quality of the Kirkwood watershed. The results are submitted to CVRWQCB.

The Kirkwood Meadows Public Utility District (KMPUD) Wastewater Treatment Plant treats wastewater from the surrounding community and ski resort. The WWTP is designed to treat an average flow of 100,000 gallons per day (gpd) and a peak flow of 200,000 gpd; the discharge permit allows for a monthly average effluent flow of 150,000 gpd.

6.3.4 Projected Wastewater Treatment Plant Parameters

Because the average daily flow during peak months is already close to the WWTP design capacity, the additional wastewater generated by new development is expected to overload the existing plant. Therefore, the WWTP will require expansion.

The ultimate peak monthly flow in fifteen years (2012) is projected at 182,500 gpd, approximately twice the current peak monthly flow of 87,600 gpd.

**Table 6.1
Projected Peak Monthly Flows at Ultimate Buildout**

Wastewater Source	Present Flow (gpd)	Growth Factor	Buildout Flow (gpd)
Residential	24,000 (1)	3	72,000
Commercial	30,100 (2)	2	60,200
Subtotal	54,100		132,200
	33,500 (3)	1.5	50,300
TOTAL	87,600		182,500

(1) March 1997 metered water usage for Single-family and Multi-family dwellings

(2) March 1997 metered water usage for commercial establishments

(3) March 1997 WWTP effluent flow minus total metered water usage

Based on the future flow and load characteristics of the WWTP, the following is recommended:

- Provide interim expansions to the plant to accommodate flow and constituent loads for the plant until complete expansion is possible.
- Expand the WWTP to accommodate ultimate buildout flows and constituent loads. A new or revised Waste Discharge Permit will need to be obtained reflecting the larger anticipated effluent flow.

6.3.5 Wastewater Treatment Plant Expansion

To accommodate future flows, the WWTP will require modification and expansion. Alternatives have been analyzed to meet these requirements. The Plant currently utilizes an Extended Aeration Activated Sludge system. The KMPUD has chosen to pursue the membrane treatment method as the best means of meeting the requirements of the community at buildout.

To summarize the membrane treatment method, following are the basic components of that system. The existing flow equalization basin would be converted to three tanks: an aeration basin containing the membranes, a denitrification tank, and an aerobic digester. The existing secondary clarifier would be demolished and that whole basin converted to flow equalization. The existing filters would be removed. The membrane process would not require the construction of any additional process basins.

For more information pertaining to the expansion of the WWTP, please refer to the Wastewater Facilities Plan, September 1998 prepared by Kennedy/Jenks Consultants for the KMPUD.

6.3.6 Membrane Treatment Process Descriptions

Membrane treatment processes combine biological treatment, clarification and filtration into one process. Solids from the aeration basin can either be wasted to a sludge digester or directly to a dewatering system.

The membrane system offers certain advantages for the WWTP. It does not require the construction of any new treatment basins. It also eliminates the need for a clarifier and filters. Finally, it produces a very high quality effluent.

6.3.7 Influent Pumping

The Influent Pumping Station must be capable of handling the peak hourly flows to the WWTP. As projected, the ultimate buildout peak hourly flow is approximately 730,000 gpd. Assuming the Influent Pumping Station will accommodate 70% of the total flow (and the East Meadows lift station accommodating the remaining 30%), the required capacity of the influent pumping station is 511,000 gpd, or approximately 355 gpm.

Expansion of the influent pumping processes includes two possibilities:

Build a parallel pump station

The existing pump station would be used as a backup if one of the new pumps fails. The new pump station would be constructed while the existing pump station was still on-line. A diversion box structure would be built to link the two pump stations together; or

Build a parallel pump station and replace existing pumps

This is the same method as described above, with the additional feature that the pumps in the existing pump station would be replaced by grinder type pumps.

6.3.8 Sludge Dewatering And Disposal

Currently, 5,000 gpd of sludge from the aerobic digester is processed during peak periods. It is anticipated that the peak volume of sludge to be treated per day will double. Therefore, the future solids handling system should be capable of dewatering a peak of 10,000 gpd of 1% to 2% sludge.

A Centrifuge is used to dewater sludge, which is containerized for subsequent hauling off site.

6.3.9 Effluent Pumping and Disposal

The best process for effluent disposal at Kirkwood continues to be absorption beds. New effluent absorption beds will need to be developed to accommodate the increased effluent volumes through buildout. The proposed and existing locations for the absorption beds are shown on Figure 6.2. The new effluent absorption bed sites are

intended to show the maximum limits of all of the possible disposal areas, and not necessarily the extent of the absorption beds at buildout that will be installed.

For effluent absorption sites that are considered to have marginal percolation rates, it may be possible to enhance these sites through engineering. Engineered absorption beds can be installed in many instances with advantages to ecosystems and operations.

Within some areas of California, effluent has been used to enhance man-made and naturally occurring wetlands. At some point in the future this may become an economic and environmentally sound alternative to supplement the existing absorption beds.

6.4 PROPANE AND ELECTRICAL SERVICE

6.4.1 Objectives For Propane and Electrical Service

1. Provide electric and propane service in an efficient manner that minimizes land disturbance for distribution lines and related facilities.
2. Maximize energy conservation by encouraging appropriate building techniques and site planning to encourage the use of solar and other alternative energy sources.
3. Provide cost-effective gas and electrical service to Kirkwood businesses and residents.
4. Provide energy sources while minimizing adverse air quality and public safety impacts.

6.4.2 Policies For Propane and Electric Service

1. All residential and commercial structures shall be designed to comply with State of California energy conservation standards to reduce the need for fossil fuels and wood burning for heating.
2. All utilities shall be placed underground and shall follow the alignment of roads whenever practical to minimize land disturbance.
3. Utility installations shall be coordinated in terms of timing and location to minimize land disturbance.

6.4.3 Electric Power Generation

Electrical power is produced on-site by Mountain Utilities (MU – formerly Kirkwood Gas & Electric), utilizing diesel generators. MU is a wholly owned subsidiary of KMR and the electrical power generation is regulated by the California Public Utilities Commission (PUC). The present plant, located northeast of Red Cliffs Lodge (see Figure 6.3) has the capacity of producing 4.2 megawatts (MW). However, due to minor distribution constraints, the plant is limited to delivering approximately 4.0 MW. Electricity is currently produced utilizing two 12-cylinder (500 KW) and four 16-cylinder (800 KW) diesel generators. During the summer of 1997, Mountain Utilities installed a Selective Catalytic Reduction system (SCR), which targets the reduction of NO_x (Nitrogen Oxides) from the diesel engine emissions.

The current peak electric demand of about 3.0 megawatts occurs during the early winter months, due to snowmaking activities. An average of twenty percent (20%) of maximum capacity is used during the summer months.

During the winter season, diesel fuel shipments to MU average six times per month. During the summer season diesel fuel is delivered about twice per month.

Within the developed portion of Kirkwood, underground electrical transmission and distribution lines are generally located within road rights-of-way, with the exception of three segments. One of these segments connects the Sun Meadows Condominium area with the KMR Maintenance Yard running along the west side of Kirkwood Meadow. An additional loop is buried in the Kirkwood Meadow from the KMR maintenance yard to the entrance to East Meadows subdivision. The third segment is located at the north end of the meadow and connects East Meadows Phase 2 with Kirkwood Meadows West subdivision, (see Figure 6.3). A high voltage electrical cable runs south from the power house to the base of Lift 1, and then generally parallel to the lift up the mountain to Lift 2, Lift 3, and terminating at the base of Lift 4.

6.4.4 Electric Power Generation Expansion

The long-range electrical power needs of Kirkwood will require either the expansion of the on-site generating facilities or the transmission of electricity from an outside energy source. It is unlikely that the availability of grid power from an outside source will become economically or environmentally sound within the foreseeable future.

Recent load calculations indicate a plant size of 11 Megawatts (MW) will be needed at buildout to handle the anticipated growth. See Table 6.3 for the buildout electrical load projection. The electrical power generation method considered to be the best plan for meeting the projected electrical demand at buildout is expanding the existing diesel powerplant or augmenting the existing plant with local alternate sources. MU is permitted to use temporary standby power in winter to meet peak loads in the event one or more existing generating units are out of service.

Several concepts are under review including fuel cells, micro turbine generators and co-generation. These generating sources could be installed as powerhouse augmentation or as distributed power components dispersed throughout the development. A technological breakthrough is necessary for successful application of any of the three listed concepts. Therefore, in the short term, expansion of the diesel plant is the preferred and only viable alternative.

6.4.5 Diesel Engine Expansion

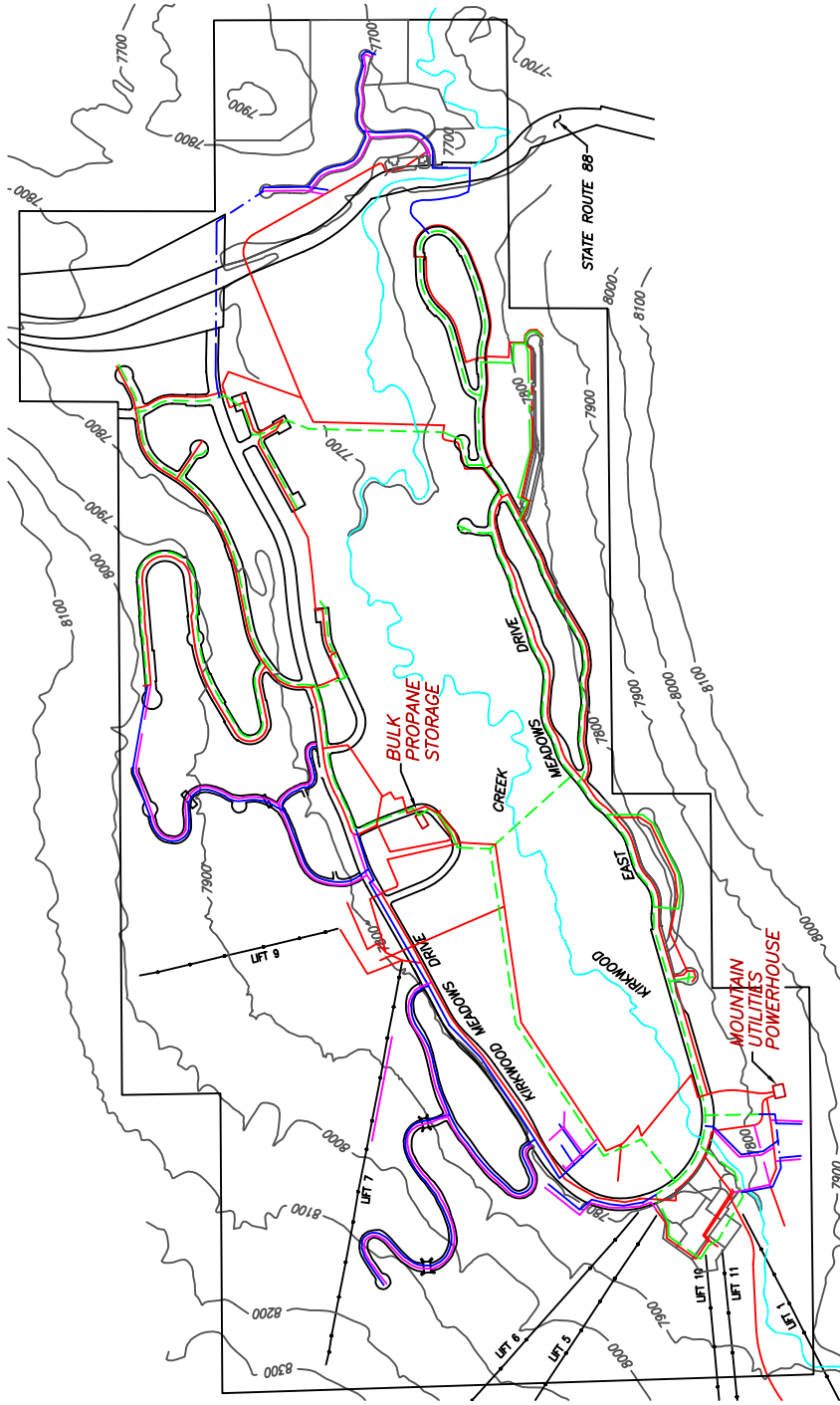
The preferred electrical power generation plan uses the existing diesel plant and expands its capacity with additional or larger diesel generators. This would require the existing plant building to be expanded or rebuilt. Additional diesel engines, additional switches and additional emission controls will also be required. Particulate filters are a new requirement for the expanded plant.

For more information pertaining to the expansion of the MU Powerplant, please refer to the Electrical Generation System and Distribution– Master Plan, March 1999, prepared by Henwood Energy Services, Inc., for Mountain Utilities.

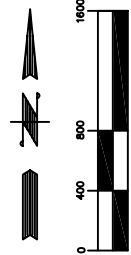
TABLE 6.3
Projection Of Kilowatt Usage At Kirkwood Through Buildout

		PROJECTED	PROJECTED	PROJECTED
	PROJECTED	SUMMER	WINTER	ANNUAL
YEAR	PEAK kW (1)	kWh USE	kWh USE	kWh USE
01 – 02	3,996	3,007,173	7,293,520	10,300,693
02 – 03	4,223	3,178,545	7,709,161	10,887,706
03 – 04	5,634	4,239,891	10,283,321	14,523,212
04 – 05	6,343	4,773,770	11,578,177	16,351,947
05 – 06	6,635	4,993,574	12,111,285	17,104,859
06 – 07	7,169	5,395,266	13,085,538	18,480,804
07 – 08	7,390	5,561,552	13,488,845	19,050,397
08 – 09	7,586	5,709,408	13,847,451	19,556,859
09 – 10	7,694	5,790,307	14,043,660	19,833,967
10 – 11	7,985	6,009,620	14,575,576	20,585,196
11 – 12	8,523	6,414,779	15,558,238	21,973,017

Notes: (1) Projected peak occurs in the winter due to ski resort operations
 kW = kilowatt kWh = kilowatt hour
 (2) Chart is based on an assumed development rate, not current experience.



- LEGEND**
- EXISTING
 - = PROPANE LINE
 - = ELECTRICAL LINE
 - PROPOSED
 - = PROPANE LINE
 - = ELECTRICAL LINE
 - = SPECIFIC PLAN BOUNDARY
 - = SKI LIFT



DATE: JANUARY 2002

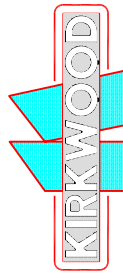


FIGURE 6.3
PROPANE AND
ELECTRICAL LINES

6.4.6 Gas Distribution

Liquefied propane gas is distributed throughout Kirkwood via an underground distribution system operated by MU. The system is supplied from a 30,000 and 20,000-gallon bulk storage tanks located in the KMR maintenance yard (see Figure 6.3). Deliveries are made via SR 88 about 1 - 2 times per month. It is anticipated that the combined 50,000 gallons of stored propane will supply Kirkwood through buildout. For more information, please refer to the Liquefied Petroleum Gas Master Plan Report for Kirkwood Mountain Resort, Kirkwood, California, May 18, 1999, prepared by Petty and Associates, Inc., available at the Mountain Utilities offices. Gas lines are generally located within road rights-of-way, with the exception of three segments. One of these segments connects the Sun Meadows Condominium area with the bulk storage area adjacent to the KMR maintenance yard and runs along the west side of Kirkwood Meadow (see Figure 6.3). Kirkwood Meadow is crossed in the east-west direction in the northern and central sections of the meadow. Propane is currently supplied to structures on the north side of SR 88 by individual tanks located adjacent to each building.

6.5 PARKS AND RECREATION

6.5.1 Objectives For Parks and Recreation

1. Provide year around recreational opportunities at Kirkwood and to maintain the high quality of recreational facilities, amenities and opportunities.
2. KMR will work closely with other service providers in promoting recreational opportunities at Kirkwood.

6.5.2 Policies For Parks and Recreation

1. Kirkwood Mountain Resort shall continue to evaluate recreational needs and opportunities and shall provide a diversity of year-round recreational amenities, as need dictates.
2. Skiers and snowboarders shall be provided with quality facilities and amenities.
3. Recreational facilities shall be provided while protecting Kirkwood's environment, natural beauty and alpine setting.
4. Summertime recreational activities shall be expanded to enable Kirkwood to operate as a year-round recreation resort.
5. Maintain appropriate facilities in existing Open Space-Recreation and Meadow zones.

6.5.3 Parks and Recreation Facilities

The purpose of Kirkwood Ski Resort is recreation. There are 2,300 “skiable” acres located on private land owned by KMR, as well as National Forest Land, including 80 kilometers of groomed cross-country trails. Within the private landholdings of Kirkwood, there are 202 acres of undeveloped open space and 129.1 acres of meadow. During the summer months, this land is open to day hikers, mountain bikers, fishermen, photographers, and sightseers. Numerous hiking and riding trails are located on private land and National Forest Land in the Kirkwood vicinity.

6.5.4 Equestrian Activities

Horseback riding is available through Kirkwood’s stables in the summer months. The stables are currently located on the north side of SR 88 with trails located throughout Kirkwood. In the winter months, horse-drawn sleighs take interested parties on rides through the Kirkwood Meadow using groomed trails. Horseback riding is expected to continue at Kirkwood. Equestrian trails and stable locations will be managed as provided and controlled by the Forest Service and county regulations.

6.5.5 Tennis Courts

A total of four public tennis courts are currently available during the summer months, located immediately adjacent to a small playground at the entrance to East Meadows and are for the general use by Kirkwood residents and guests. There are two additional tennis courts located in the East Meadows subdivision for the exclusive use of East Meadows HOA members. As residential development continues, the provision for additional amenities will be encouraged.

6.5.6 Multi-use Trail Network

A number of multi-use trails exist within and around the community of Kirkwood (on National Forest Land and private land) for use during summer months. Some of these trails connect with dirt roads used to access ski lifts for maintenance during summer months. In addition to trails, pedestrian and bicycle use occurs along many of the local roads within Kirkwood.

Figure 6.4 depicts the existing and proposed trail network within the Kirkwood Valley. Construction of these new trails is likely to coincide with ski trail and ski lift expansion and possibly with private land development.

Trail construction would occur in such a way as to avoid and minimize erosion and guard against plant and riparian habitat degradation. If in the future, use conflicts arise on these trails, trail use will be coordinated and/or restricted to certain types and/or combinations of use.

One partially existing trail, the Meadow Trail Nature Walk, parallels the eastern perimeter of the meadow. To protect the sensitive meadow ecology and to minimize unauthorized trail-blazing, a complete trail encircling the meadow is proposed. All proposed trail construction shall be consistent with the open space and recreational

land use policies found within this Plan. Utility easements will be used where possible to create this looped trail system. Figure 6.4 shows the proposed and existing trail routes.

6.5.7 Community Recreation Facility

KMR and the KMPUD have considered a number of community recreation facilities that would improve neighborhood and community parks at Kirkwood. Some of the proposed facilities include a swimming pool complex, a community recreation center/gymnasium/convention facility, and an ice-skating rink located in the Village. In summer of 2001, a Recreation Center and ice skating rink were both started in the Village area. The Recreation Center, sponsored by the Master Home Owners Association, is on the west side of East Meadows Drive, opposite the Red Cliffs Employee Housing complex. The ice rink, also an MOA project, is located just north of The Mountain Club.

6.5.8 Ski Mountain Development

KMR owns 220.2 acres that are designated as Open Space in addition to 132.1 acres of Meadowland. KMR also operates under a Special Use Permit from the United States Forest Service, Eldorado National Forest, which covers 2,300 acres of skiable terrain. Not all of this terrain is currently accessible from chairlifts, so expansion and upgrades of existing facilities is planned. These expansions and upgrades will be done in an effort to attract more skiers and snow boarders, but located so the open space and uncrowded slopes that have made Kirkwood famous are not lost.

KMR is in the process of updating its Mountain Master Plan with the Eldorado National Forest. The updated Mountain Master Plan includes the construction of chairlifts, which have been proposed since Kirkwood's inception, as well as some newly proposed chairlifts.

KMR sees on-mountain facility expansion occurring in three directions: 1) upgrades to existing facilities and chairlifts; 2) construction of new chairlifts, related facilities and on-mountain food service; and 3) construction of new summer recreation oriented facilities and activities. Figure 6.5 depicts the extent of the Special Use Permit boundary and the anticipated lift expansions, upgrades and associated facility construction/expansion. The Mountain Master Plan currently being developed is envisioned to address the next seven to 10 years of activities, while Figure 6.5 depicts the ultimate development proposal for all envisioned ski lifts. This figure is in no way an indication of county or USFS approval; it is included in this document for informational purposes.

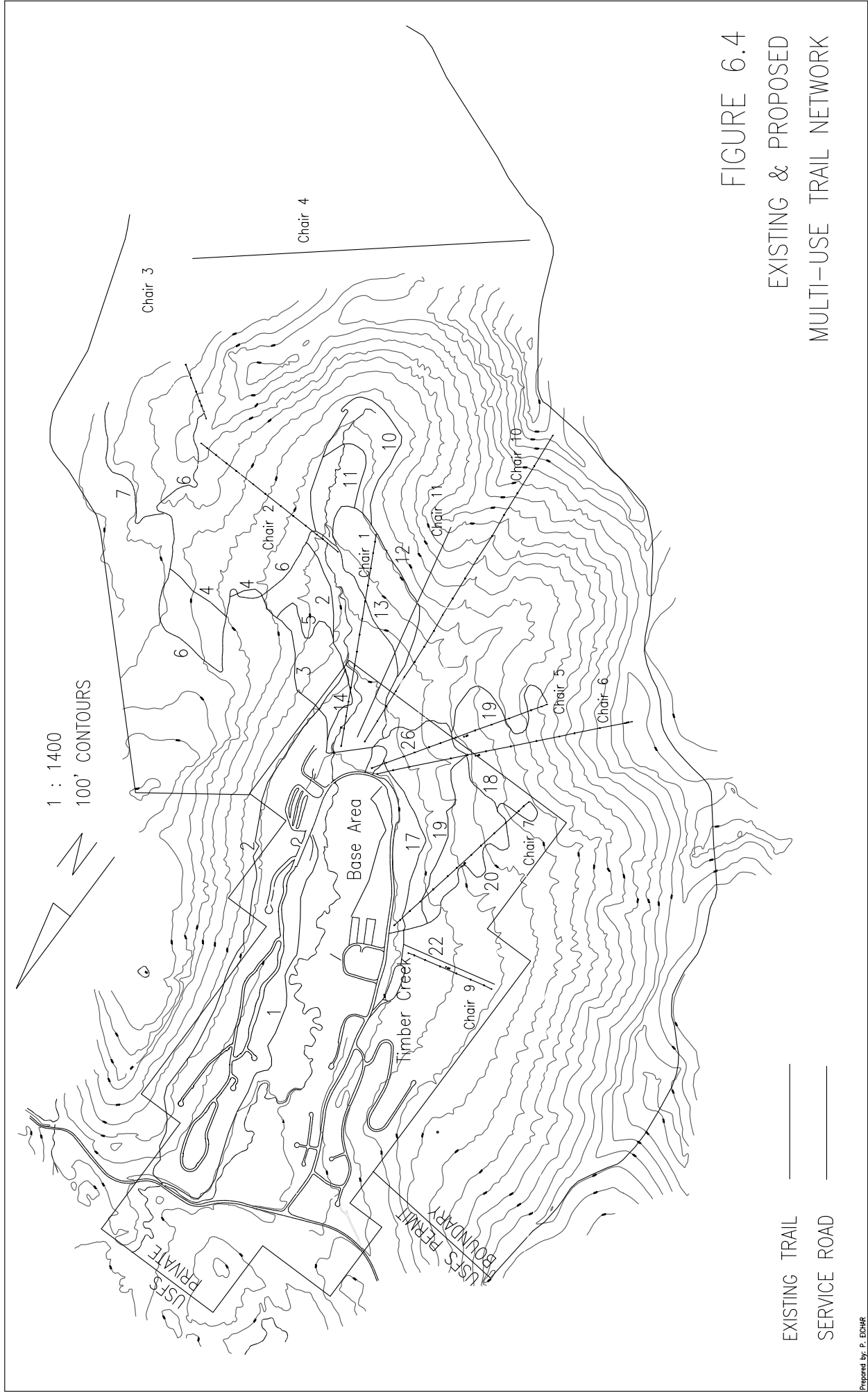


FIGURE 6.4
EXISTING & PROPOSED
MULTI-USE TRAIL NETWORK

CHAPTER 7 - NATURAL RESOURCE CONSERVATION AND VISUAL SENSITIVITY

INTRODUCTION

This chapter focuses on environmental factors that have guided the development of the Specific Plan, and sets forth the policies to be implemented to ensure future protection of natural resources and visually sensitive areas of Kirkwood. As a mountain resort, KMR's success is largely dependent upon protection of the natural resources that make Kirkwood a unique area.

7.1 FLORA AND FAUNA RESOURCES

7.1.1 Objectives for Flora and Fauna Resources

1. Maintain and protect the riparian corridor of Kirkwood Creek, both within and outside Kirkwood Meadow, by way of building envelopes, continued water quality monitoring and restrictions on any development within the meadow area.
2. Minimize unnecessary tree removal by establishing building envelopes after reviewing required tree surveys for any proposed subdivisions and by requiring compliance with the Tree Ordinance.
3. Preserve trees in the vicinity of new construction by ensuring adequate setbacks for construction equipment to avoid damage to tree roots.
4. Comply with the State and Federal Endangered Species Acts.

7.1.2 Policies for Flora and Fauna Resources

1. No new development of above-ground structures (excluding those necessary for utilities such as well pump enclosures) shall occur in the Kirkwood Meadow area. However, structures such as trail markers and bridge crossings are allowable to maintain the integrity of the meadow via approved trails and creek crossings.
2. Activities within the meadow such as horseback riding shall be monitored and controlled to ensure that no long term environmental damage occurs to meadow resources or Kirkwood Creek.
3. Any maintenance of existing facilities or construction within the Kirkwood Meadow, such as water or sewer lines, shall be reviewed by Tri-TAC and shall include a program to minimize disturbance to existing vegetation and revegetation as necessary. An exemption would be allowed for emergency repair work.
4. The Tree Ordinance shall apply to all development at Kirkwood including road widening and public works projects.

5. Development in areas not surveyed for rare, threatened, or endangered plant species and not previously disturbed by existing/prior land uses shall be surveyed for species listed or proposed to be listed under the California and Federal Endangered Species Acts, prior to approval of Final Subdivision Maps or prior to the issuance of building permits. Survey protocols shall follow those acceptable to the California Department of Fish and Game, U. S. Fish and Wildlife Service and the U.S. Forest Service.

7.1.3 Flora

Numerous surveys of potential development areas were undertaken to define and identify any potentially rare, threatened or endangered plant species. These surveys may be reviewed at the Alpine County Planning Department. Surveys concluded that no rare, threatened or endangered plant species were found within the surveyed areas based on review of climatic and local habitat conditions in addition to field surveys.

7.1.4 Fauna

Wildlife species considered non-sensitive but likely to be found at Kirkwood include mule deer, black bear, and mountain quail. These are considered Management Indicator Species by the U. S. Forest Service which represent the diversity of vegetation and special habitat components required by all fish and wildlife species. At Kirkwood, the overall habitat capability for these species is medium (Simpson Environmental, 1995). A list of wildlife species observed during 1973 and 1994 wildlife surveys of the Kirkwood area can be found in the Environmental Impact Report/Environmental Assessment for the Kirkwood Water Rights and Snowmaking Project (1995), available for review at the Amador County Planning Department (Jackson, California) or the Alpine County Planning Department (Markleeville, California).

7.1.5 Aquatic Life

Fishery resources in the immediate vicinity of Kirkwood are limited by minimal or absent summer flows in tributaries and the headwaters of Kirkwood Creek. Brook trout (Salvelinus fontinalis) have been observed in isolated pools located within sections of Kirkwood Creek. Further downstream, Kirkwood Creek supports brook trout and brown trout (Salmo trutta) populations that are self-propagating.

7.2 HYDROLOGY AND WETLANDS

7.2.1 Objectives for Wetlands and Hydrologic Features

1. Ensure drainage from the Kirkwood Meadows Creek watershed is considered in the design of a Kirkwood storm drainage system and is safely conveyed through the Kirkwood community.
2. Protect existing wetlands in accordance with all local, state and federal regulations.
3. Protect existing riparian corridors in terms of existing vegetation, soil conditions and

water quality.

7.2.2 Policies for Wetlands and Hydrologic Features

1. All proposed subdivisions shall include adequate storm drainage systems to ensure that all off-site and on-site drainage is safely conveyed to Kirkwood Creek.
2. Erosion control measures during construction shall be undertaken in compliance with the Erosion Control Ordinance in effect at the time of construction, to ensure protection of water quality and conservation of topsoil. Such construction-related measures may include, as examples, construction of open channels to convey storm water runoff, streambed protection and/or energy dissipaters, use of hay bales down slope of construction sites and revegetation with appropriate plant materials along channels.
3. New development shall comply with any applicable National Pollutant Discharge Elimination System (NPDES) permit requirements for point and non-point source discharges.
4. Storm drainage systems shall be designed for the 100-year flood event. These systems shall be designed for gravity flow and winter freeze/thaw conditions.
5. All on-site detention basins shall be designed to allow adequate access for maintenance and shall be landscaped appropriately.
6. All identified wetlands shall be protected (disturbance avoided and or minimized) in accordance with local, state and Federal regulations. New development that may impact Waters of the U.S. or other streambeds shall comply with any applicable requirements of the U.S. Army Corps of Engineers, the California Department of Fish and Game and the Central Valley Regional Water Quality Control Board.
7. Any new development of subdivisions proposed in areas not surveyed for Wetlands or Waters of the U.S. shall be surveyed for such prior to design approval.
8. Whenever practical, riparian corridors shall be revegetated to enhance creek habitat and increase in-channel roughness, thereby reducing the average flow velocity by dissipating energy.
9. For any commercial project, residential subdivision or public works projects involving the use of hazardous materials, a spill prevention and cleanup plan shall be adopted prior to issuance of building permits. The intent of the plan is to minimize the risk of spills during outdoor handling and transport of chemicals and to contain and rapidly clean up the spill before it enters a storm drain.
10. A street/storm sewer maintenance program may be required in the future to provide for the removal of pollutants from paved areas and to maintain the functions of the various storm drain components.

11. All new development shall be protected from the 100-year flood. Mapping shall identify any areas within the 100-year floodplain and shall address potential ice dams and stream sedimentation events (i.e., increased gravel deposits).

7.2.3 Hydrologic Features

A wetland is defined as “an area that is periodically inundated or saturated by surface or ground water on an annual or seasonal basis, that displays hydric soils and that typically supports or is capable of supporting hydrophytic vegetation” (Black, 1991).

Kirkwood Creek is the primary hydrologic feature located within Kirkwood. After crossing SR 88 at the north end of Kirkwood, Kirkwood Creek flows into Caples Creek. The confluence of these two creeks is about 1.5 miles downstream of the northern dam of Caples Lake. Caples Creek is a major tributary of the Silver Fork of the South Fork American River, which discharges into Folsom Lake. Below Folsom Dam, the American River joins the Sacramento River, one of the principal drainages feeding the Sacramento-San Joaquin Delta.

A hydrologic model was used to determine total annual runoff of Kirkwood Creek, as there is no streamflow gauging station on Kirkwood Creek (Simpson Environmental 1995). The private landholdings within Kirkwood are located entirely within the watershed of Kirkwood Creek, a basin that encompasses 2,265 acres, or 3.53 square miles. This model calculated total annual runoff as 5,660 acre-feet for a ‘normal’ year, or about 2.5 acre-feet per acre. About 80 percent of this runoff would occur between April and June as a result of melting snowpack. During a drought year, runoff could be as low as 1,869 acre-feet or 0.8 acre-feet per acre.

Development within this watershed, outside of the private land boundary is limited to that allowed by the U. S. Forest Service, which primarily includes ski lifts and associated facilities of KMR.

Surveys have been undertaken by KMR for Wetlands and Waters of the U.S. that may be located within private lands at Kirkwood. These surveys may be reviewed at the Alpine County Planning Department in Markleeville, California. More than 60 acres of Wetland and Waters of the U.S. were identified within the surveyed areas. This acreage was defined as those elements shown in Table 7.3. Disturbance of these areas by building or any other activity would require applicable permits from the California Department of Fish and Game, U.S. Army Corps of Engineers and the Central Valley Regional Water Quality Control Board.

**TABLE 7.3
WETLANDS AND WATERS OF THE U.S.
LOCATED WITHIN SURVEYED AREAS**

Feature Type	Acreage
Ephemeral drainage	4.15 ac
Seeps	4.67 ac
Perennial Drainage	6.41 ac
Open water wetland	0.45 ac
Meadow	51.85 ac

Source: Simpson Environmental, 1995, Moore Biological 2001

7.3 GEOLOGY, SOILS AND SEISMICITY

7.3.1 Objectives For Geology, Soils and Seismicity

1. Minimize soil erosion and sedimentation as a result of new construction by avoidance of excessively steep slopes and enactment of erosion control measures prior to construction activities.
2. Avoid rockfall hazards by proper siting of new development.
3. Minimize damage due to seismic activity by proper siting of development and construction techniques.

7.3.2 Policies For Geology, Soils and Seismicity

1. New construction shall comply with the Kirkwood Erosion Control Ordinance.
2. No new development shall be located in areas defined as "red zones" as mapped during the 1995 avalanche survey. If any development is proposed in areas not yet surveyed, such avalanche surveys shall occur prior to design/layout of lots or buildings.
3. All new construction shall comply with requirements of the Uniform Building Code regarding seismic safety.
4. Whenever possible, new development should avoid slopes that exceed 30 percent in areas where soils are prone to erosion.

7.3.3 Geology

Elevations within the area covered by this Plan range from 7,675 feet to 8,025 feet above mean sea level (msl). Kirkwood Meadow, located in the center of Kirkwood, is a glacially derived alluvial valley surrounded by mountains on the south, east and west ends.

The most critical constraints to development at Kirkwood related to geology, soils and seismicity are erosion due to development on steep slopes, and rockfalls due to natural erosion processes (i.e., thaw/freeze). In March 1996, KMR completed a study entitled "Report of Preliminary Geotechnical Investigation" which addressed proposed development areas within the Village Center, Ski-In/Ski-Out area, East Meadows Phase III area, Juniper Ridge and the North Kirkwood area (Nolte and Associates, Inc., 1996).

The five geologic formations found within the Plan area include the following (Simpson Environmental 1995):

- Qal: Alluvium (Kirkwood Creek floodplain)
- Ql: Lakebed Deposits (small area at south end of Kirkwood)
- Qm: Moraines (western and eastern edges of Kirkwood Meadow)
- Pvp: Merhten Formation (western and eastern mountain slopes)
- Kgr: Hornblende granite (north end of Kirkwood, north side of SR 88)

Granitic rocks (Kgr) are found north of State Route 88. The predominant rock type is Hornblende granodiorite. In this area, rock outcrops are mainly on steep, to very steep slopes. These areas are essentially barren with plant cover limited to sparse grasses, shrubs and stunted trees. Granitic rock masses in the Kirkwood North area will require blasting prior to grading for construction.

Rockfall hazards were surveyed in 1995 and 1997 by studies undertaken by A. Mears, P.E., an avalanche-control engineer based in Colorado. These studies concluded that rockfall hazards tend to be localized in few areas, therefore, development is not planned nor allowed within these areas.

7.3.4 Seismicity

No identified or known fault lines or zones fall within the project area covered by this Plan (Simpson Environmental 1995). The Kirkwood area lies between the Sierra Frontal fault system to the east and the Foothill fault system to the west, and is within Uniform Building Code (UBC) Seismic Zone 3 (Nolte 1996). Based on recent research and recent seismic events, a seismic event could produce effects in the Kirkwood vicinity of Modified Mercalli Intensity VII or VIII.

7.3.5 Soils

Soils in the meadow area (where no development is proposed) are aquepts and umbrepts on less than 10 percent slopes. To the east of the meadow, the predominant soil type is lithic cryumbrepts (15 to 75 percent slopes). Maximum erosion hazard is very high, especially on the steep slopes and these soils have a high runoff potential.

To the west and south of the meadow, the predominant soil type is andic cryumbrepts-lithic cryumbrepts association on 15 to 50 percent slopes. The main management concerns are steep slopes and the hazards of erosion and high runoff potential.

7.4 AIR QUALITY

7.4.1 Objectives For Air Quality

1. Meet or exceed all applicable state and Federal air quality standards.
2. Promote activities which do not contribute to air quality problems.

7.4.2 Policies For Air Quality

1. All new construction shall include measures to reduce dust emissions such as the use of water as a dust palliative during dry conditions.
2. Construction equipment shall be equipped with emission reduction equipment consistent with California Air Resources Board requirements.
3. All new wood-burning stoves shall be required to meet applicable standards to minimize polluting emissions, as established by both the U.S. Environmental Protection Agency, and the Great Basin Unified Air Pollution Control District (GBUAPCD), the Amador County Air Pollution Control District (ACAPCD) or the El Dorado County Air Pollution Control District (EDCAPCD), dependent upon the location of the project.
4. Any expansion of the Mountain Utilities Power Plant and other facilities at Kirkwood shall comply with applicable air quality regulations and permit requirements.
5. Energy conservation measures shall be implemented for new construction in compliance with applicable building code requirements to minimize energy use and associated emissions from the Mountain Utilities Power Plant. The use of solar and other alternative energy sources is encouraged.
6. Vehicle fuel consumption shall be minimized by siting commercial uses in proximity to residential uses (to encourage walking and other non-auto transit) and by continuation of the employee and in-valley shuttle service.
7. Any expansion of the Kirkwood Wastewater Treatment Plant shall comply with applicable air quality regulations.

7.4.3 Wind Direction

The mountainous topography surrounding Kirkwood influences wind direction through the valley and affects the distribution of rain and snowfall. Fall regional winds in this part of the Sierra Nevada are generally from the northwest, while winter regional winds are generally from the southeast. Local topography can make wind direction quite variable at Kirkwood. Local winds tend to flow north along Kirkwood Creek for the majority of the year.

7.4.4 Monitoring and Modeling

The private lands within Kirkwood are in three separate California air basins. These include the Great Basin Unified Air Pollution Control District (GBUAPCD) for Alpine County, the Amador County Air Pollution Control District and the El Dorado County Air Pollution Control District.

Primary pollutants of concern from proposed expansion are particulate matter from construction activity (short-term), wood burning in fireplaces and carbon monoxide from increased vehicular activity. Pollutants (e.g., nitrogen oxides) also may be associated with the burning of diesel fuel for the Mountain Utilities power plant at Kirkwood. The potential effects of these air contaminants were computer modeled to the time of buildout and were demonstrated to fall within all known air quality standards. This report, Kirkwood Expansion Project Air Quality Modeling, prepared by Ashworth Leininger Group for Kirkwood Mountain Resort, February 1999, may be reviewed at the KMR Planning Department Offices.

7.5 ARCHAEOLOGICAL/HISTORICAL RESOURCES

7.5.1 Objectives For Archaeological/Historical Resources

1. Ensure that new construction does not damage or negatively impact cultural, historical or archaeological resources.

7.5.2 Policies For Archaeological/Historical Resources

1. If any archaeological or historical resources are encountered during construction activities at Kirkwood, all construction shall be halted and planning department staff of the appropriate county shall be contacted regarding the best course of action. If appropriate, a qualified archaeologist shall be contacted to evaluate the find and to determine any necessary mitigation measures.

2. If any Native American artifacts or burial grounds are uncovered during construction, appropriate personnel from the Native American Heritage Commission and County Coroner's Office shall be contacted to determine how to proceed.

3. Construction foremen/managers shall be informed of the above policies prior to the start of construction.

4. New development in the vicinity of the Kirkwood Inn shall consider the historical features of the Inn and shall incorporate architectural features that are compatible with the Inn's design. Development shall utilize construction methods and siting designed to avoid significant impact to the Inn, as recommended by a qualified architectural consultant experienced with historical structures.

5. If any development is proposed in areas not covered by archaeological and cultural resources surveys, surveys shall be completed for the new area and appropriate

mitigation measures shall be identified as necessary.

7.5.3 Archaeological Surveys

Over the years, KMR completed several archaeological surveys of potential areas for development. Aside from the Kirkwood Inn, no potentially important or significant historic or archaeological resources were identified within the survey areas.

The Kirkwood Inn is located north of State Route 88 at the north end of the Plan area. This structure was built in the 1860's and has been listed as California Land Mark SRL 40. The structure straddles two counties - Alpine and El Dorado - and is immediately adjacent to the Amador County border. The Inn consists of an original log cabin to which a larger framed building has been added.

The Native American Heritage Commission (NAHC) was contacted in conjunction with surveying activity. The NAHC has no record of sacred lands in the Kirkwood area. Local Native Americans were also contacted during the surveys. Archeological surveys will be continued as necessary during any development.

7.6 VISUAL SENSITIVITY

7.6.1 Objectives For Visual Sensitivity

1. Ensure that new development seen from State Route 88 is screened by existing vegetation as much as possible and that new residences and commercial buildings incorporate design elements compatible with the natural surroundings.
2. Ensure that new development throughout Kirkwood is visually compatible and appropriately designed for a mountain community.

7.6.2 Policies For Visual Sensitivity

1. New development within the viewshed of State Route 88 shall receive advisory recommendations from Tri-TAC and the U.S. Forest Service regarding design, material selection and color scheme.
2. Design guidelines, as approved from time to time, shall apply to all new development at Kirkwood.
3. No permanent structures (excluding needed utility structures such as well pump enclosures), or use patterns that would lead to permanent meadow degradation shall be allowed in Kirkwood Meadow.
4. Landscaping shall be incorporated into major public works projects such as parking areas, expansions of wastewater treatment facilities and school construction. Such landscaping shall follow the Landscape and Revegetation Guidelines in effect at the time of construction.

5. Residents shall be informed of the Landscape Guidelines so that new landscaping is compatible with existing landscaping and is appropriate for the climate, elevation and other conditions at Kirkwood.

6. Lighting of public areas (including recreational facilities, commercial plazas, and parking areas) shall avoid light and glare impacts to nearby residents by incorporating shielding and other means to direct lighting to specific target areas.

7. New signs shall comply with the Kirkwood Sign Ordinance in effect at the time of sign construction.

8. Short-term, special events to be held at Kirkwood shall follow Use Permit regulations from the appropriate agency and shall not result in visual degradation. Such special events shall include programs for litter control and monitoring of cleanup.

9. All new development shall comply with the Kirkwood Tree Ordinance to prevent unnecessary tree removal.

7.6.3 Kirkwood Meadow

Preservation of the Kirkwood Meadow and the viewshed corridor from State Route 88 are important issues to KMR and the U.S. Forest Service. A Scenic Agreement has been adopted as part of the Special Use Permit that KMR has with the U.S. Forest Service (Ref. FSM 2710, dated 12/29/94). This agreement identifies the boundaries of the meadow where no new development shall be allowed. In addition, the Scenic Agreement identifies a second scenic zone, which is the balance of the private land forming part of the scenic backdrop to the meadow and visible from State Route 88.

7.6.4 Visually Sensitive Areas

This Plan identifies "visually-sensitive areas", defined as "foreground", "midground" and "background" and shown in Figure 7.1:

Foreground. Most highly visible and most sensitive area from State Route 88. Extends from State Route 88 to the first major promontory on the west.

Midground. Has moderate visibility and sensitivity. Extends from the promontory (edge of foreground) to naturally-occurring "neck down" in the meadow.

Background. Least visible from State Route 88. Extends from the meadow "neck down" to the ski slopes south of the Village Center.

As can be seen by comparing Figure 4.1 with Figure 7.1, most of the new development proposed for Kirkwood is planned for the "background" area.

7.6.5 Landscape Zones

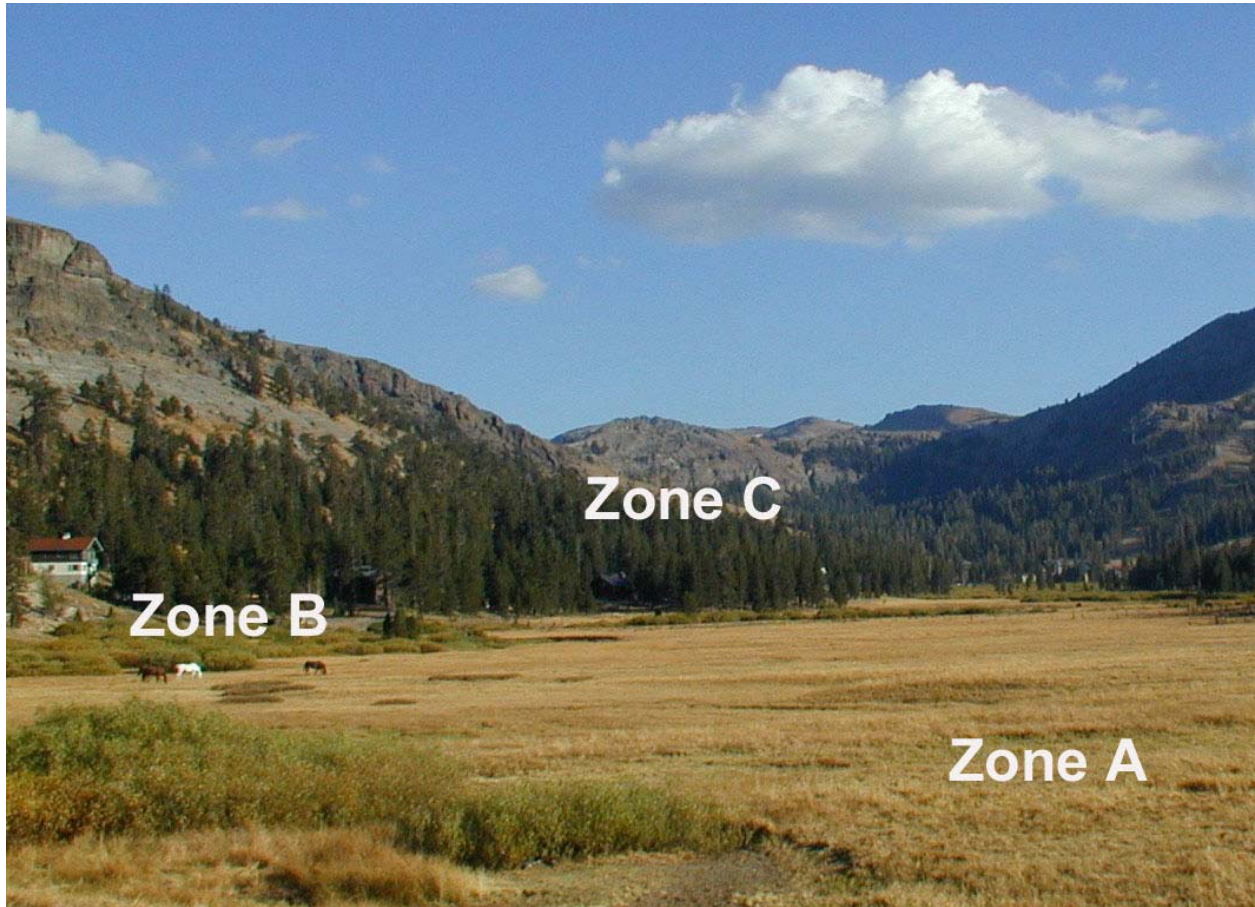
Three landscape zones have been identified within the valley to determine the amount and type of modification or development as related to visual sensitivity and revegetation. These areas are based primarily on predominant vegetation types, topographic relief and soil type, as illustrated in Figure 7.2. Zone A consists of the stream, riparian edge condition, willows and flat grasslands. Zone B is the transition zone from meadow/willow/grass edge to dryer soils, predominately sagebrush and isolated clusters of conifers. Zone C is similar to Zone B except rockier and dominated by heavy tree cover and steeper slopes.

Although all three zones are found in each of the visually sensitive areas, they will be treated differently in each area based on their visual sensitivity from Highway 88. No development, except as previously described and exempted from this condition, will occur throughout Zone A.

Some parts of Zone B, when found in the foreground area, will be visible from Highway 88, while other areas will not be as visible. Care in sighting, construction and revegetation will be necessary to develop this area. However, Zone B in the middle and background areas will be less visible from Highway 88, which will allow for more development flexibility.

Heavily forested Zone C is the most amenable zone for development in terms of modifying visual impacts in all three areas. Again, care in building siting and retention of vegetation will be maximized in all visually sensitive areas.

Figure 7.1



Zone A: stream, riparian edge, willows, flat grasslands
Zone B: transition zone, sagebrush, isolated conifers
Zone C: heavy tree cover, steep side slopes

**Figure 7.2
Landscape Zones**

CHAPTER 8 - HOUSING

INTRODUCTION

The four primary housing needs at Kirkwood are: 1) the guests; 2) the residents; 3) the employees that provide services for the operation of the resort and the community; and 4) temporary emergency accommodations for patrons and employees of the valley, an occasional situation that is caused by severe winter weather. The highest levels of occupancy at Kirkwood occur during the winter months. Special events such as summer camps, special promotions or the annual homeowners' meetings during the Fourth of July weekend do cause temporary summer increases. It is the intent of this Plan to facilitate development for a more consistent level of use of the resort facilities throughout the year.

8.1 OBJECTIVES FOR HOUSING

1. Ensure that a variety of housing types and sizes are available to meet the demands of a resort community and cater to a variety of income levels.
2. Provide adequate affordable housing for year-round and seasonal employees.
3. Ensure that an adequate number of short-term rental accommodations are provided for patrons to satisfy regional resort destination demands for accommodations.
4. Encourage types of development that will stimulate a more uniform use of the resort throughout the year.
5. Develop an "in-lieu" fee structure and program for private developers to provide funding for employee housing construction.

8.2 POLICIES FOR HOUSING

1. For the purposes of population assignment, the method set forth in Chapter 4 shall be followed for density allocation, which correlates unit type with assigned population counts.
2. Development at Kirkwood shall follow the procedure established in the Employee Housing Ordinance in effect at the time of development for the assessment of employee housing needs.
3. Developers shall be required to meet the requirements of the Employee Housing Ordinance.
4. Housing structures shall be designed to be compatible with the Kirkwood setting and to conform with the Kirkwood Design Regulations.
5. Employee housing shall be located in proximity to other housing areas and

commercial services within the counties of Alpine, Amador and El Dorado.

6. Existing employee housing units shall be maintained in serviceable condition.

7. Caretaker units shall be encouraged in duplexes and single-family homes where allowed, as a means to provide additional employee housing.

8. This Plan shall promote incentives that will encourage the provision of affordable housing as is described in the Implementation sections of The Employee Housing Ordinance and Chapter 9.

8.3 GUEST HOUSING (ACCOMMODATIONS)

Short-term occupancy of accommodation units reaches 100 percent during holidays and many weekends during the ski season. The provision of additional market-rate housing that will increase the availability of short-term accommodations is critical to the development of Kirkwood. Large condominium units (i.e. 4-bedrooms) and single-family homes are part of the planned residential development at Kirkwood; however, they are seldom placed on the market for short-term accommodations. To aid in satisfying the demand for overnight accommodations, KMR is pursuing interval/fractional ownership programs for multi-family projects.

8.4 RESIDENT HOUSING

Given the semi-remote location and the limited services (institutional and commercial facilities) available in Kirkwood, there are few year-round residents. The general development plan of Kirkwood and growth in its year-round program will generate the basic demands required to provide these increased commercial services. This in turn is expected to increase the number of year-round residents. It should be noted that even with the construction of new services at Kirkwood, the year-round resident population will increase but, when compared to the maximum allowable population (6,558 persons), the number of year-round residents is expected to stay relatively low. This assumption is based on the fact that Kirkwood will not be able to compete or offer the amount of services available in the surrounding communities of South Lake Tahoe and Minden/Gardnerville. Another fact that supports this assertion is that the current resident population at Kirkwood is about five percent (5%) of the total existing housing.

8.5 EMPLOYEE HOUSING

While there are a significant number of seasonal employees in the low to moderate income brackets, there are also a number of year-round employees at higher income levels whose housing requirements vary. The provision of affordable housing for employees is a primary focus. Affordable housing at resort communities often translates into some form of employee housing. At Kirkwood, the three large employee housing buildings, Renwick, Youth Hostel and Red Cliffs, require heavy subsidies by KMR for their operation and maintenance. Part of the success of this Plan will be an effective program that guides the development of creative affordable housing within

Kirkwood and adjacent communities with the assistance of third party developers, varied product, and county, state and Federal programs.

**TABLE 8.1
1999/2000 EMPLOYMENT NUMBERS FOR THE KIRKWOOD VICINITY AND THE
NUMBER OF ACCOMMODATIONS PROVIDED**

Employer	#Seasonal emp.s (99/00)	#Year-round emp.s (99/00)	Total peak employment (buildout)	#emp. units (99/00)	#emp.s housed (99/00)
KMR	800 (2)	125	1000	170 (3)	170 (6)
NON-KMR (1)	31	19	100	1	14 (5)
Caples Resort	8	2	10	1	5
CalTrans (4)	18	7	25	2	up to 30

Notes to Table 8.1:

1. Non-KMR employers include: Kirkwood Towers/Whiskey Run Bar & Grill, the KMPUD, Kirkwood Accommodations, Kirkwood School, Volcano Telephone and KSEF. Some of these employees live in-valley and/or have housing allowances such as the KMPUD employees.
2. Of the 800 seasonal KMR employees, 50 percent are full-time employees, working 32 or more hours per week, the other 50 percent are part-time employees. 800 employees represents the average seasonal employment.
3. An employee unit in this table equates to the number of employees housed.
4. Information per Al Schindler, CalTrans.
5. Some non-KMR employees may also work for KMR, thereby receiving housing through KMR and not their Non-KMR employer.

8.6 KMR EMPLOYEE HOUSING SURVEYS

In February 1995, KMR surveyed its department heads regarding housing preferences of their employees and projected employee needs. In 1997, a second survey of KMR employees was conducted, it focused on the following:

1. Current place of residence
2. Preference for living at Kirkwood or elsewhere
3. Type of housing desired with associated rent structure
4. Reasons for choice of residence
5. Family income and other associated questions

The largest demand for employee housing occurs between November and April each year. KMR department head responses (1995) to the survey indicated the largest preference of seasonal employees would be for studios and dormitory units. For employees (1997), the preferred housing was one- or two-bedroom units as well as single-family homes.

The 1997 employee survey asked respondents to rank the most important reasons for choosing their place of residence. The top five reasons given, in order of preference

were: recreation, length of commute, cost of housing, remoteness, and availability of housing.

The 1997 survey asked respondents to rank, based on personal feasibility and preference, varying types of housing with associated market rate rent (as compared to nearby communities). Many of the respondents said that they could not afford the type of housing they desired, given the associated rent. Many of the responses indicated that they would be willing to pay about one-half of the market rate rent. This could be due to the fact that they currently reside in one of the existing employee housing complexes where the rent is about 50% of the market rate rents of nearby communities. Respondents, who were able to meet the rent demands, indicated some type of shared housing arrangement.

It is important to note that the *desire* to live at Kirkwood is very different from the *ability* to live at Kirkwood, given the cost of construction and the practical rent structures that are available. It is also important to note that many of the respondents who indicated the ability to live at Kirkwood in market rate housing were from dual income households.

8.6.1 Estimated KMR Employees At Buildout

As previously discussed, during peak employment, about 800 employees work for KMR, of which only about 150 are year-round employees. At buildout, it is projected that there will be 150 year-round and 850 seasonal KMR employees.

Employee housing will be provided in accordance with the Employee Housing Ordinance. Based on the goal of providing housing for 30% of qualified employees, adequate employee housing will be created to meet the resorts needs.

8.6.2 Estimated Non-KMR Employees At Buildout

Expansion of the CalTrans Caples Lake Maintenance Station and Caples Lake Resort is not under the jurisdiction of this Plan, however, their number of employees and the number of employees housed on site, is important to consider, (see Table 8.1).

The Non-KMR employees employed at businesses or public agencies within Kirkwood, whose expansion is under the jurisdiction of this Plan, need to be considered and projected to the time of buildout. The current (99/00) peak employment for non-KMR employees is estimated at 50 individuals. Of these 50 employees, approximately 14 of them live in employee housing. Employees receiving a housing allowance are not counted as accommodated employees in Table 8.1.

Non-KMR employers and/or developers are responsible to provide the Employee Housing Ordinance mandated pro-rata share of housing for employees at Kirkwood or in the tri-county vicinity. Should an outside developer construct an employee housing project, there would be the opportunity for Non-KMR employers to purchase, or gain exclusive use rights to the appropriate number of units in lieu of constructing their own. KMR has and will continue to pursue outside developers as a source of potential

employee housing development.

8.7 LOCATIONS FOR EMPLOYEE HOUSING

Employee housing is an allowed use in any residentially designated zone, including mixed-use zones. In order to encourage the development of employee housing in all areas of the valley, this method of land use control was chosen. It is believed that market conditions will dictate where and when these units are constructed. Sites in all three counties should be considered as potential locations for employee housing projects. The most likely location for future employee housing complexes would be found within multi-family and multi-family and commercial (MF, MF-C) land use zones, in addition to employee units found within Single-family/Duplex Residential zones.

8.8 EMPLOYEE HOUSING ORDINANCE

An employee housing ordinance will be adopted by the counties to govern the types, number and timing of providing for employee housing units. The Employee Housing Ordinance is attached as Appendix 5.

CHAPTER 9 - IMPLEMENTATION MEASURES AND PHASING

9.1 KIRKWOOD ORDINANCES

This Plan is intended to be both a regulatory and policy document. As such, the identified standards, guidelines and regulations contained herein serve as the enforcement mechanisms directing future development. Kirkwood is located within three separate counties, but has its own environmental and locational characteristics. It is appropriate that one set of regulations should apply to Kirkwood and these should generally supplement individual county land use regulations. If any conflicts arise between the Kirkwood Specific Plan standards and the regulations or ordinances of individual counties (Alpine, Amador or El Dorado), the Plan provisions shall take precedence.

In this Plan, standards for building regulations have been identified in Chapter 4 and will be codified in the Land Use Ordinance. The standards identified in this Plan and the ordinances are enforceable land use regulations as this Plan is a policy document and the codified Ordinance (regulations) is enforceable by the county of concern.

In addition to existing ordinances noted above, the following are new proposed ordinances contained herein which will be enacted per the ultimately approved provisions of this plan and its subsequent EIR.

1. Erosion Control Ordinance
2. Landscape and Revegetation Guidelines
3. Kirkwood Design Ordinance
4. Land Use Ordinance

9.2 CAPITAL IMPROVEMENTS PROGRAM AND FINANCING

The following are the major capital improvement projects under consideration to accommodate future development at Kirkwood:

1. Employee Housing
2. Construction of an elementary school with related facilities
3. Expansion of wastewater treatment and domestic water supply facilities (school district responsibilities)
4. Expansion of electricity production facilities
5. Construction of additional recreational facilities.

9.3 COMMUNITY FACILITIES

Land at Kirkwood has been deeded to the KMPUD by KMR for public services. The 5.74-acre site is adjacent to Loop Road and encompasses the existing KMPUD WWTP. The KMPUD is deed restricted in the use of this parcel for public services, such as expanded WWTP operations, domestic water supply treatment, and the Community Facilities Building.

The KMPUD has constructed a Community Services Building that will house the Kirkwood Volunteer Fire Department's equipment and office space, space for a sheriff's sub-station, KMPUD administrative offices a room for community events and meetings.

Since the passage of Proposition 218 (7-1-97), affected property owners must vote on all assessment fees. At present, the fire assessment fee is set at \$.04 per square foot of improvement on each lot, residential and commercial, on an annual basis. Funds collected as part of the fire assessment fee can be used for equipment and facility construction.

The Fire Impact Fee is imposed at the time of obtaining a building permit in Alpine and Amador County. A total of \$0.47 is charged per square foot of new construction in Kirkwood. This money is put into a trust fund for the purchase of new equipment and can also be used for construction. No impact fees are currently levied in El Dorado County, however, annual assessment fees do apply.

9.4 EMPLOYEE HOUSING

Due to the high cost of construction and the poor return on employee housing rentals, it is desirable that a developer receives revenue from vacant employee housing units. This aids in offsetting the debt and operational costs of providing employee housing units. The utilization of these facilities during the summer months will help meet the needs of construction workers or other semi-permanent tenants when the Kirkwood Valley's employment requirements are nominal.

The following list of possible actions, if implemented, may serve as a direction by which KMR or other private developers can pursue a reduction in the costs of developing employee housing. The appropriate county and/or utility provider with the appropriate approvals may undertake any or all of the following actions.

- Waiver of Real Estate Transfer Assessment – At the request of the developer, the Kirkwood Resort Master Owners Association may waive the RETA for the sale of all employee housing units or land to be used as such.
- Water Tap Fees - The developer may request the KMPUD Board of Directors to reduce or waive the water connection surcharge. If at some time in the future the project reverts to free market, all waived fees would be repaid to the KMPUD at the then current rate. The assurance of repayment in the case of a reversion to free market would be guaranteed through deed restrictions.
- Sewer Tap Fees - The developer may request the KMPUD Board of Directors to reduce or waive the sewer connection surcharge. If at some time in the future the project reverts to free market, all waived fees would be repaid to the KMPUD at the then current rate. The assurance of repayment in the case of a reversion to free market would be guaranteed through deed restrictions.

- Property Tax Credits/Abatement - The developer may request, from the county in which the project is proposed, a waiver and/or abatement of property tax assessments, for a period to be set by the county. In lieu of the abatement, the county of concern may, as an alternative, create a differential property tax that favors employee-restricted units at an appropriate discount rate to that of the standard assessment.
- Financing – At the developer’s request, the county and/or the KMPUD may create a vehicle to assist developers in gaining public financing (without any guarantee of actual receipt of said funds; when funds and or programs are available).
- Caretaker Units –In single-family subdivisions, homeowner associations may amend their CC&Rs to qualify a portion of a structure as employee housing provided the caretaker unit meets the ordinance guidelines.
- Ground Lease Program, Free Land Dedication, or a Deferred Purchase Price by the Developer - These three options, at the sole discretion of the developer, may be implemented to defer or remove the land purchase factor from the cost of developing employee housing units required by this Plan. KMR or any other land developer may defer or abate the purchase price of a parcel of land for the development of an employee housing project.
- Mixed-Use Projects - Government mandated development fees, such as building permit fees and sewer/water connection surcharges, may be reduced in relation to the area proposed for employee housing.

9.5 SCHOOL FACILITY

A school site comprised of six acres has been deeded to the Alpine County Unified School District (ACUSD). This school site is located adjacent to Loop Road at the western edge of Kirkwood. The site was donated in 1992 by KMR and is deed restricted for use as a public school.

Current State funding, called Necessary Small School Funding, is provided to ACUSD to operate the existing local elementary school located in Sun Meadows Four. These funds cover the costs of salaries, supplies and equipment, but do not include funds for construction of a new school nor the leasing of the space currently used. This funding does not cover indirect costs such as the principal’s time for oversight of school operations or transportation to the elementary school in Markleeville for special events. No funds are directly appropriated by the ACUSD for the Kirkwood Elementary School.

This ACUSD receives about \$80,000 per year from the State of California to cover operation of the Kirkwood School. This amount covers direct costs but does not cover indirect costs such as those mentioned above. The amount will remain unchanged unless enrollment at the Kirkwood School increases to an average daily attendance (ADA) of 25 students, at which point the amount received from the State’s Necessary Small School Funding would be increased as the regulations provide.

Many counties have developer fees assessed at the time of issuance of a building permit that can be used to fund construction of new schools, however, the ACUSD cannot qualify for developer fees due to the lack of overcrowded classrooms. Thus, other mechanisms must be used to obtain funding. One possible public financing mechanism available to the ACUSD is the creation of a Special Assessment District. Such districts are geographic areas in which local governments levy assessments to pay for public projects such as schools.

The initiation of the creation of an assessment district would need to be spearheaded by the ACUSD at the county level. Special assessments pay for projects that are of specific and direct benefit to a particular group of landowners. Such assessments may be imposed after an assessment ballot proceeding required by Proposition 218. Such a proceeding requires an affirmative vote of the affected landowners with the ballots weighted according to each landowner's financial obligation under the proposed assessment.

Given the relatively small size of the community, a combination of public revenue sources may be necessary to supplement any private funding that may be provided for construction of a local school.

A portion of the property taxes collected in El Dorado County covers the costs for the bonded debt of the Lake Tahoe Unified School District (though no Kirkwood children attend schools in this District). With future development planned for the area in El Dorado County, some type of fee structure will need to be established, in addition to an agreement between El Dorado County, Amador and Alpine Counties. These issues will need to be resolved between the respective counties

9.6 RECREATION FACILITIES

Recreation facilities that offer activities for winter and summer time use are desirable. The vision of this is to provide a pool, hot tubs/Jacuzzis, an exercise complex with equipment and some type of indoor court. It should be recognized that phasing of such a building(s) would be the most economically viable program for development of said facilities. The funding for these amenities is envisioned to be a combination of private and public funds. Property tax revenues generated at Kirkwood could be used to aid in the funding for construction of a community recreation facility. Private funding is anticipated to come from the Kirkwood Resort Master Owners Association. The Quimby Act through the KMPUD is another alternative that may be pursued.

9.7 WASTEWATER TREATMENT AND DOMESTIC WATER SUPPLY EXPANSION

Development projects at Kirkwood pay the KMPUD a tap fee for water connections and a hook-up fee for sewer connections. These fees are used for the operation and maintenance of said facilities.

Pursuant to California Constitution Article XIII A, Section 1, a local government may

increase property taxes above the one percent limit established by Proposition 13 to secure general obligation bonds "...for the acquisition or improvement of real property." The increase may occur only if two-thirds of the voters in a local election support the bond issuance. Approval of additional bonds may be necessary to finance future facilities. Enterprise Revenue Bonds, General Obligation Bonds or a Land-secured Mello-Roos Community Facility District formation are all plausible options for the KMPUD to finance future sewer treatment, domestic water supply expansion and effluent discharge expansion.

The KMPUD has pursued the implementation of the Mello-Roos Community Facilities Act of 1982. This Act enables special districts to establish community facilities districts and levy special taxes to fund a wide variety of facilities and services required by a specific plan. The KMPUD has chosen this route as the best means of financing the design and construction of the expanded wastewater treatment plant at Kirkwood.

In addition to the funding mechanisms mentioned above, the KMPUD and KMR have agreed that when domestic water demand exceeds supply, KMR will provide an interest free loan to the KMPUD to construct new domestic water wells to meet the demand. This loan would be repaid to KMR by KMPUD water tap fees.

Transient Occupancy Taxes (TOT) could be increased by any of the three counties in which Kirkwood is located. Currently, Alpine and El Dorado Counties charge a 10 percent TOT and Amador County charges 6 percent. This money is currently directed to the General Fund account of each county. In Alpine County, a portion of the TOT is returned to the KMPUD to cover general operating costs. A specific percentage for all three counties, at the appropriate time, could be allotted to Kirkwood (KMPUD) projects directly, based on the tax revenue received from the Kirkwood community.

9.8 PROPANE GAS SYSTEM AND POWER GENERATION EXPANSION

Two propane storage tanks (30,000 and 20,000-gallon), located in the Kirkwood Maintenance yard supply the propane distribution system. It is anticipated that the combined 50,000 gallons of stored propane will supply Kirkwood through buildout.

The long-range electrical power needs of Kirkwood will either require expansion of the on-site generating facilities, or the transmission of electricity from an outside energy source. Should a transmission line to Kirkwood become economically feasible, it is anticipated that an independent third party would pursue this alternative.

Due to the fact that Mountain Utilities is a private utility company, the means for financing expansion projects are more tightly limited than if it were a public utility provider, such as the KMPUD. Therefore, funding for the electrical power generation expansion is anticipated via a mixture of private bank financing, equipment vendor financing, and internally generated Mountain Utility funds.

9.9 PRIVATE FINANCING

Many of the proposed improvements at Kirkwood such as parking and landscaping are expected to be funded by KMR. However, KMR has established the Kirkwood Resort Master Owners Association (KRMOA), in which all members pay monthly fees in exchange for such benefits as snow removal, provision of a swimming pool and associated recreational amenities.

The KRMOA's responsibilities may also include, but are not limited to, the following:

- Storm Drain Maintenance
- Landscaping and Maintenance
- Pedestrian Plazas and Walkway Maintenance
- Pedestrian Amenities and Street Furniture
- Parking Garage Operation and Maintenance
- Security
- Trash Removal and Recycling
- Cultural Events and Programs
- Snow removal
- Roadway Repair and Maintenance
- Parks and Recreation
- Facility Maintenance and Operation
- Property and Facility Management
- Housing Authority
- Architectural Design Review
- Utility Provider (maintenance, operation)

The KRMOA generates revenues by four mechanisms: Member Assessments, Real Estate Transfer Fee (RETF), Civic Assessments and Overnight Lodging Assessments.

Member Assessments may only be used for the operation and maintenance of existing facilities, such as the public tennis courts and Kirkwood Meadows Drive, in addition to funding the Associations' staff and overhead costs.

The RETF, Civic and Overnight Lodging Assessments may be used for the operation and maintenance of existing facilities and/or programs, as well as capital improvements, such as a community recreation complex.

9.10 TAX REVENUES GENERATED BY KIRKWOOD

Property tax, transient occupancy tax and sales tax revenues are currently the primary sources of revenue for Alpine, Amador and El Dorado counties from Kirkwood. Sales tax revenues are distributed directly to the state, a portion of which is reimbursed to the county of origin. However, the state does not specify the location from which the original revenues were received.

9.11 DEVELOPMENT PHASING

The anticipated development schedule is as follows:

1. Village Center
2. Ski In/Ski Out South
3. Timber Creek Service/Day Skier Parking Area
4. Timber Creek Village
5. Ski In/Ski Out North
6. Kirkwood North

Buildout unit distribution estimates are shown in Table 4.2.

It is important to note that a portion of the proposed development may occur on private property by individual developers not associated with KMR. Therefore, the preferred phasing may be different than actual construction. Village development is emphasized so that a strong population concentration will be created in this area. This should provide support for the associated commercial uses in the pedestrian-oriented village. Development may occur in the Timber Creek area, the development timeline being driven by resort demands.

The Plan assumes that infrastructure development will occur concurrently with the demand for upgrades, rather than developing a massive infrastructure first. Market demand and housing needs drive which type of development projects are constructed and when.

9.12 CAPITAL IMPROVEMENT PHASING

9.12.1 KMPUD Facilities Expansion

The KMPUD WWTP is expected to be expanded as needs expand through buildout of the Specific Plan.

9.12.2 Mountain Utilities Facilities Expansion

The Mountain Utilities power generation facility is expected to be expanded as demands increase.

As of August 2001, the power plant capacity is 4.2 MW, while the delivery capacity is approximately 3.6 MW.

Expansion will involve improvement to both generating and distribution equipment.

Subsequent expansion of electrical generating capacity can be from conventional diesel fired generators or alternate technology as applicable. Fuel cells, micro turbine generators, solar power are options which are possible. Distributed power, where the source of power (a fuel cell for example) is placed closer to the point of use is an option in Kirkwood.

All power expansion will be subject to the current regulations of the State of California and the U.S. Federal Government which govern the various aspects of producing safe, dependable, clean power for the Kirkwood area.

CHAPTER 10 – THE SPECIFIC PLAN AND SUBSEQUENT DISCRETIONARY PROJECTS

10.1 KIRKWOOD SPECIFIC PLAN PROGRAM EIR

The EIR being prepared for the Specific Plan is what is referred to as a Program EIR. A Program EIR can be prepared for a series of actions that can be characterized as one large project and are related with the issuance of rules, regulations and plans to govern the conduct of a continuing program. A Program EIR is most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

10.1.1 Projects Exempt From Further Environmental Documentation

Subsequent activities in the program must be examined in the light of the EIR to determine whether an additional environmental document must be prepared. If the county in which a project is proposed finds that no new effects could occur or no new mitigation measures would be required, the county can approve the activity as being within the scope of the project covered by that EIR and no new environmental document would be required.

10.1.2 Subsequent Projects Requiring Additional Environmental Documentation

If a later activity would have effects that were not examined in the EIR and the California Environmental Quality Act, a new initial study would need to be prepared leading to either an EIR, mitigated negative declaration, negative declaration or categorical exemption. A Program EIR can be used to simplify the task of preparing environmental documents on later parts of the program. The Program EIR can provide the basis in an initial study for determining whether the later activity may have any significant effects. The Program EIR can be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives and other factors that apply to the program as a whole.

CHAPTER 11 – SPECIFIC PLAN ADMINISTRATION AND ENFORCEMENT

11.1 SPECIFIC PLAN COST RECOVERY

The costs incurred for the preparation of this Plan were borne exclusively by KMR. Reimbursement agreements were established with El Dorado and Amador counties for staff time to review the Specific Plan and the associated EIR.

Alpine County as lead Agency recoups monies to pay for staff time to review the Plan and the associated EIR via contract with Kirkwood Mountain Resort and the EIR preparation consultants, as a percentage of the overall contract.

11.2 SPECIFIC PLAN ENFORCEMENT

This Plan lays the foundation for the Policies and Objectives stated herein and must pass by resolution within each respective county. The Plan, upon approval, will become an ordinance in each of the three counties.

As an ordinance, it is the obligation of the appropriate county department/division/personnel to enforce the standards found therein, within the boundary of the respective county. For example, Amador County will be responsible for enforcing the provisions of the Erosion Control Ordinance for those development projects found within the Amador County portion of Kirkwood.

It is anticipated that the County Planning and Building Departments will shoulder the majority of enforcement responsibilities as they relate to development projects at Kirkwood.

ACKNOWLEDGMENTS

The staff of the Kirkwood Mountain Resort prepared this Specific Plan, with the assistance of a number of consultants and review by various members of committees and boards. The intent of this Specific Plan is to provide relevant planning information that will guide Kirkwood toward a development that the residents of Alpine, Amador, and El Dorado counties will be proud of.

Peter Eichar, Penny Tirschman, R. Tom Brinkley II, Ed Morrow, Gary Derck and many assorted staff members of Kirkwood Mountain Resort worked as a team in the preparation of the Specific Plan.

Examples of other Specific Plans and Design Guidelines were relied on during the preparation of this Specific Plan. These included the Mountain House Master Plan (San Joaquin County, California, prepared by SWA Group) and the North Village Specific Plan (Town of Mammoth, California, prepared by Eldon Beck Associates). The book entitled, Design For Mountain Communities by Sherry Dorward, was also a helpful reference in preparation of the Specific Plan.

The staff of Alpine, Amador and El Dorado counties also assisted tirelessly in the preparation of this Specific Plan. We want to thank Brian Peters and Leonard Turnbeaugh, Alpine County; Susan Grijalva, Amador County; Peter Maurer, El Dorado County; and Tom Henie, Kirkwood Meadows Public Utilities District, for their time and counsel as this plan developed.

We could not have completed this document without your generous assistance.

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GLOSSARY

1. Evapotranspiration: the process of water evaporating from the surface of a water body, in addition to the amount of water released by vascular plants through their stomata.
2. Fauna: animals found in a given region; this includes mammals, amphibians, birds, etc.
3. Flora: vascular plants, however can include non-vascular plants such as lichen and fungi.
4. MU: Mountain Utilities, (formerly Kirkwood Gas & Electric) a wholly-owned subsidiary of KMR.
5. Kirkwood: refers to all private land holdings located in the Kirkwood valley as addressed by this Kirkwood Specific Plan (see Figure 1.2).
6. KMPUD: Kirkwood Meadows Public Utility District.
7. KMR: Kirkwood Mountain Resort, the Resort operator.
8. Landscape: planting activities typically considered non-essential and thus ornamental in nature, plants which may or may not be native to the region. Landscape plants typically are not intended for erosion control purposes, however, all vegetation regardless of intention, slows down natural erosion processes.
9. Revegetation: planting activities associated with erosion control activities, and reestablishment of native species, not for ornamental planting, although some revegetation species may be quite showy. Revegetation activities usually follow the construction of major projects such as road cuts, utility line installation, structure erection, etc.
10. Resort, the: refers to the private land holdings owned by KMR and located in the Kirkwood valley as addressed by this Kirkwood Specific Plan.
11. Tri-TAC: Tri County Technical Advisory Committee; an advisory committee comprised of members of the planning/public works departments of Alpine, Amador and El Dorado Counties and the U.S. Forest Service (as ex officio members). This committee typically meets the first Friday of each month at Kirkwood and this meeting is open to the public.
12. Waters of the United States: include essentially all surface waters such as all navigable waters and their tributaries, all wetlands adjacent to these waters, impoundment's of these waters, and intermittent streams. These waters are identified by the following three components: 1) hydrology of area in question, 2) soil type, 3) and vegetation type(s) found in the immediate area.

13. Wetlands: areas characterized by growth of wetland vegetation (bulrush, cattails, rushes, sedges, willows, pickleweed, and iodine bush) where the soil is saturated during a portion of the growing season or the surface is flooded during some part of most years. Wetlands generally include swamps, marshes, bogs and similar areas.

14. Wildlife: refers to the animals found in a region, typically in reference to larger animals, such as mammals.

15. Xerophitic: vegetation which tends to be drought tolerant, that is, having low irrigation requirements.