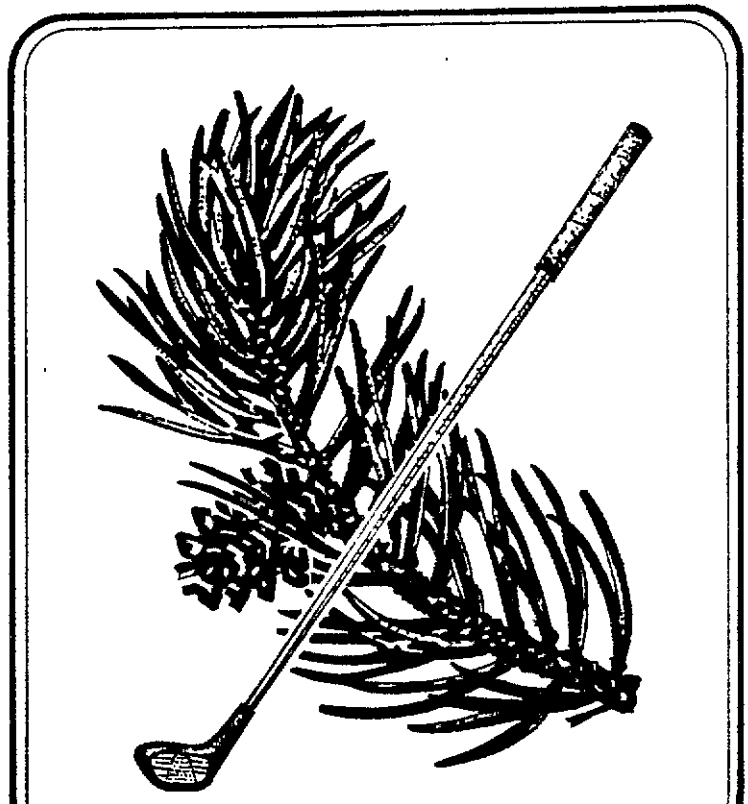
UNIT 382

LAKE VALLEY STATE RECREATION AREA

GENERAL PLAN

May 1988

SCH 87071306



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GENERAL PLAN

PRELIMINARY
JANUARY 1988

GEORGE DEUKMEJIAN
GOVERNOR

GORDON VAN VLECK
SECRETARY FOR RESOURCES

HENRY R. AGONIA
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CALIFORNIA DEPARTMENT OF PARKS AND RECREATION
RESOURCES AGENCY
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Note: The Park and Recreation Commission approved this Preliminary General Plan in MAY 1988.
A Final General Plan was printed dated OCT 1988.

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SUMMARY OF GENERAL PLAN PROPOSALS

Lake Valley State Recreation Area is located in the Lake Tahoe basin near the City of South Lake Tahoe. Most of the 181-acre unit is developed as an 18-hole golf course.

Proposed Resource Management Policies

Natural Resources

1. A management program shall be prepared. The four parts of this program will include:

   a. Development and maintenance of a stream management sensitivity zone.

   b. A river management plan.

   c. A natural resource management element of the golf course management plan for ecological resources.

   d. A water quality monitoring program.

2. The department shall actively participate in local land use issues involving lands upstream from Lake Valley State Recreation Area that may adversely affect state recreation area resources.

3. The department shall manage plant communities in undeveloped areas and along the Upper Truckee River to reestablish normal successional trends.

4. Systematic surveys for rare and endangered plants shall be made prior to any development in the state recreation area. Species found shall be protected and perpetuated.

5. The department shall work with appropriate agencies to implement a wildfire management plan.

6. Altered natural habitats that are to remain undeveloped shall be restored to natural conditions.

7. An aquatic life habitat enhancement program shall be implemented for the Upper Truckee River and Angora Creek within the state recreation area.

8. Wetland habitat shall be managed for its long-term preservation and enhancement.

9. Management programs shall be developed for animal species that are threatened, endangered, or sensitive and of special concern.

10. The department shall consult with appropriate regulatory agencies regarding management of Canada geese on the golf course of the state recreation area.

11. The department shall consult with appropriate regulatory agencies for the purpose of extirpating the introduced beaver from the state recreation area.

Cultural Resources

1. An archeologist shall monitor any major landscape modifications in the state recreation area.

Esthetic Resources

1. Human influences shall be minimized within the state recreation area to the extent practicable without obstructing the unit's purpose.

Recreation Resources

1. Recreation uses within the state recreation area shall consider and conform to:

   a. Natural and cultural values within the state recreation area.

   b. The contiguous unit, Washoe Meadows State Park.

Proposed Interpretive Actions

1. Install displays in the golf clubhouse interpreting the story of Lake Valley State Recreation Area and its relationship to concerns for the ecological health of the Lake Tahoe basin.

2. Install displays in the golf clubhouse interpreting the management program instituted by the Department of Parks and Recreation to assure the health and integrity of the environment.

3. Install displays in the golf clubhouse interpreting the history of golf and its technologies, as seasonally appropriate.

4. Install displays in the golf clubhouse interpreting the history and technology of skiing, sledding, and snowmobiling, as seasonally appropriate.

5. Produce a brochure that summarizes the story of how Lake Valley State Recreation Area became a State Park System unit, and the reasons why the department has embarked on a management program designed to protect and preserve the Lake Tahoe basin environment.

6. Produce and dispense low-cost guides for birdwatching and for the self-guided nature trail.

7. Encourage a living history program through periodic demonstrations of golfing as it was played in the late 19th century.

Proposed Concession Actions

1. Golf course operation and winter sport activities previously provided for under state-administered concession contracts are proposed to be continued in kind pursuant to the Declaration of Purpose adopted by the California Park and Recreation Commission on March 13, 1987. Concession contracts and operations will be guided by the management policies contained herein and by all applicable provisions of the Public Resources Code.

Proposed Operations Actions

1. The operations staff of the department will implement the concession contracts relating to unit operation.

2. Implementation, management, and maintenance of all resource policy-related actions and improvements will be the responsibility of the operations staff either directly or through administration of the concession contract(s).

Proposed Property Acquisitions

1. Eleven undeveloped parcels, totalling 67.11 acres, are proposed for ultimate acquisition by the department. Such areas of interest extend beyond present departmental ownership. They are identified for purposes of long-range planning only and do not constitute a commitment for acquisition. Facilities proposed on such lands are indicated without identifying the supplying agency.

Proposed Land Uses

1. Proposed land use zones contained in this general plan are consistent with the pre-existing sport activity that has been reconfirmed by action of the California Park and Recreation Commission through a classification action and adoption of the Declaration of Purpose for the unit. The catalogue of land use zones envisioned includes:

OPEN SPACE/Stream Management Sensitivity Zone
OPEN SPACE/Undeveloped
OPEN SPACE/Rehabilitated
WETLANDS/Ponds-Drains
GOLF COURSE/Developed
DAY-USE/Developed
ENTRY, PARKING, CLUBHOUSE, MAINTENANCE

Proposed Facilities

New Projects

1. Develop a family picnic area with 10-15 tables, BBQs, 10-15 parking spaces, a comfort station, and an access road.

2. Improve the park entry with turn lanes, fencing, gates, signing, and overflow parking for 60 vehicles.

3. Develop two golf course comfort stations, one near holes 5 and 7 and another near holes 13 and 18.

4. Surface existing and new service roads and cart paths to eliminate compaction and erosion.

5. Expand driving range length and width, add a new tee at south end, and create a wetland/sediment basin along the east side to improve aquifer recharge and reduce sediment transport from off-site sources.

6. Plant screening trees for safety at holes 2, 3, 4, 5, 8, 9, 13, 14, 15, 16, and 18.

7. Improve playing strategy on hole 15.

Replacement

1. Replace existing clubhouse and cart storage area at current location.

2. Replace existing maintenance structures at current location.

3. Replace existing bridges to reduce negative impacts on stream dynamics and bank erosion.

4. Replace water diversion point to reduce negative impacts on stream dynamics and bank erosion.

Rehabilitation

1. Rehabilitate and expand the south drain to improve aquifer recharge and reduce sediment transport from off-site sources.

2. Remove unnecessary service roads and cart paths and revegetate.

3. Rehabilitate oxbow west of holes 6 and 7, and reduce flow in main channel to reduce bank erosion and flooding.

4. Rehabilitate old Angora Creek channel and reroute flow to reduce erosion in Upper Truckee River.

5. Remove northern portion of Arapahoe Street and revegetate.

6. Rehabilitate natural areas between fairways by removing exotic plants and revegetating with native plants.

7. Remove existing turf and irrigation from fairways adjacent to the river at holes 6, 7, and 16, and revegetate with native plants.

INTRODUCTION

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Unit Identification

Lake Valley State Recreation Area (SRA) is located in the Lake Tahoe basin approximately three miles south of Lake Tahoe adjacent to State Highway 50 and the community of Meyers (see State and Regional Location Map).

The unit is approximately 181 acres of relatively open flat land surrounded by coniferous forest and residential development. Average elevation is 6,280 feet above sea level. About 106 acres of the unit are developed and currently used as a golf course, known as Lake Tahoe Country Club, which is open to the public and is being managed by the department through a concession agreement. The remaining area includes pockets of undeveloped coniferous forest, meadow, and riparian woodland.

The Upper Truckee River, which supplies approximately 40% of the water to Lake Tahoe, flows through the unit near the western and northern boundary. Washoe Meadows State Park, currently undeveloped, is contiguous with the unit on the western boundary along the Upper Truckee River.

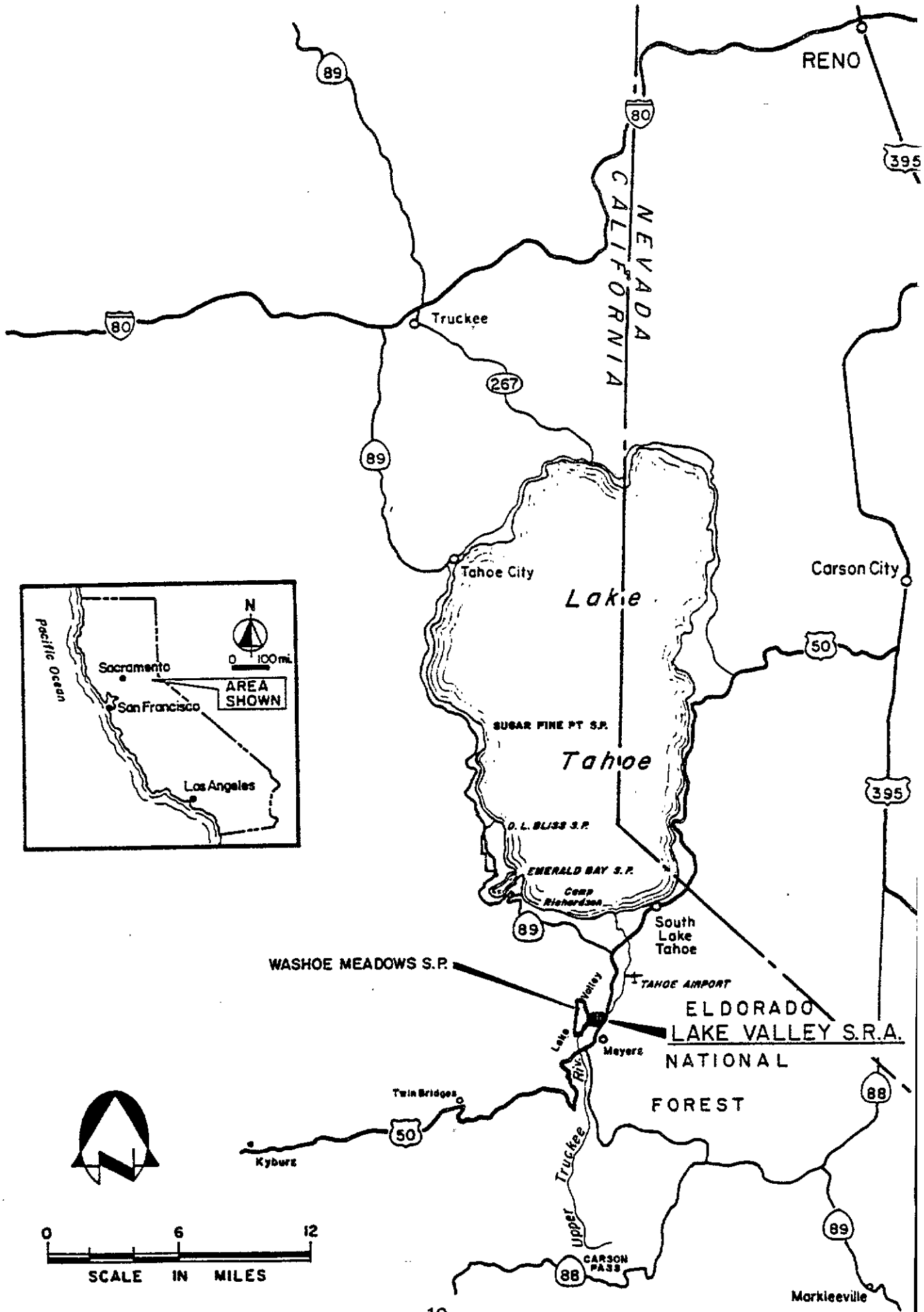
In addition to the adjacent Washoe Meadows State Park, Emerald Bay and D. L. Bliss state parks, which are located 10 to 13 miles to the north, are the State Park System units nearest to Lake Valley SRA.

Purpose

This general plan provides guidelines for long-term management and development of Lake Valley State Recreation Area in the Lake Tahoe basin. Prepared by the California Department of Parks and Recreation to satisfy requirements of Public Resources Code Section 5002.2, its approval by the California State Park and Recreation Commission is required prior to any development that would constitute a permanent commitment of natural or cultural resources.

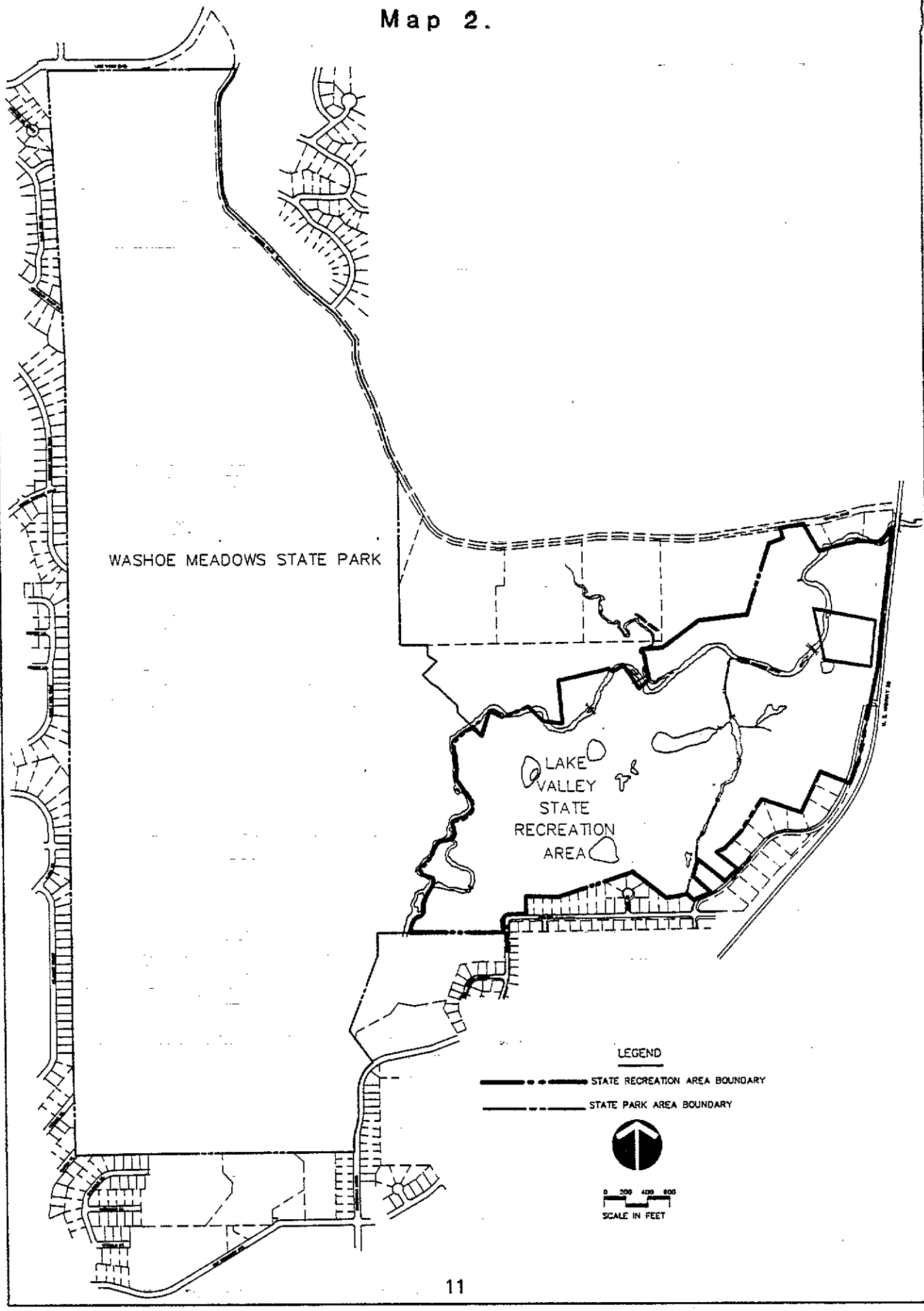
The plan summarizes the available information about the unit, documenting the planning process and the relevant data used in making land use decisions and specific management and development proposals. As conditions change, the plan may be reviewed and updated as necessary to responsibly guide departmental actions at the unit. The plan, however, is not meant to provide detailed plans for site development, resource management, or unit operation and maintenance. Figures given for building and parking lot sizes and for length of cart paths and service roads are approximate only and may be modified when specific site plans are prepared for funding and implementation. Details of resource management are left for inclusion in specific resource management programs that will be prepared at a later date.

Discussions about land not owned by the Department of Parks and Recreation have been included. These lands represent potential acquisition opportunities, based on available data. However, the discussions are intended for planning purposes only and do not represent an intention or commitment for acquisition.



MAP 1 State and Regional Location

Map 2.



LAKE VALLEY STATE RECREATION AREA
VICINITY MAP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

REVISIONS | DATE | DESIGNED | DRAWN | CHECKED

General Plan Elements

The plan is made up of the following elements, which reflect the department's responsibility to fulfill certain goals:

The Resource Element evaluates the natural and cultural resources of the unit and sets management policies for protection, restoration, and use of these resources.

The Interpretive Element proposes programs and facilities for public information and interpretation of the unit's natural and cultural resource values.

The Concessions Element summarizes opportunities to provide appropriate goods or services to the public through concessions in existing or proposed facilities.

The Operations Element describes specific operational and maintenance requirements and guidelines unique to the unit.

The Land Use Element describes current land uses and relevant planning issues, determines proposed land uses consistent with the resources and unit classification, and outlines land use objectives and recommendations.

The Facilities Element describes current facilities and proposed development to enhance public recreational experiences and enjoyment of unit resources and values, and establishes priorities for unit development.

The Environmental Impact Element provides the environmental impact assessment required by the California Environmental Quality Act. It assesses environmental effects and proposes mitigation measures. The entire general plan document constitutes the Environmental Impact Report, and reference may be made to other sections of the document.

Objectives of the Plan

This general plan attempts to meet the following broad objectives:

1. Develop the land base and facilities needed to help meet current and future recreation demands in the Tahoe basin.

2. Perpetuate both the environmental quality and wildlife habitat of the site, as well as other natural and cultural resources.

3. Provide appropriate interpretive services and facilities for educational and recreational purposes.

4. Provide proper direction for concession services and facilities, where appropriate.

5. Promote a safe, enjoyable, and well-managed recreational environment.

6. Equip the Department of Parks and Recreation, state and federal agencies, private organizations, and individuals with a tool for coordinating their efforts to meet these objectives.

The Planning Process

The planning process included a comprehensive evaluation of the roles various agencies are playing in providing recreational opportunities and in preserving significant cultural and natural values in this area of the state. Current recreational patterns of the many varied segments of the state's population were also examined in order to identify specific needs to be met by the unit.

This information, coupled with detailed resource inventories and public comments, provided the foundation for the various development and management proposals contained in this document.

Public Involvement

The public played a major role in creating this plan. From the outset, the planning team attempted to identify all parties interested in or affected by this plan, and to encourage their participation in the decision-making process. The plan evolved step-by-step, with active public involvement. Although attendance at public meetings was moderate, participation was enthusiastic and particularly helpful.

Three public meetings were held at the City Council Chambers in South Lake Tahoe. The first meeting, held on August 10, 1987, allowed the planning team to share what had been learned during the inventory process and permitted the team to become aware of public concerns and issues.

The second meeting, held on October 7, 1987, allowed the staff to share various alternatives with the public that were prepared in response to issues raised during the first public meeting and subsequent agency coordination. Comments received provided direction for preparation of the preliminary plan.

The final meeting, held on January 19, 1988, provided an opportunity for the public to review the preliminary plan and to comment prior to printing and review of the environmental impact assessment.

Contact with the public was established through development of a mailing list that included known interested individuals and agencies. Newsletters were prepared announcing and summarizing meetings.

Agency Coordination

Contacts were established with the following agencies, organizations, and firms that have, or may have, an interest in this planning effort:

Agencies:

El Dorado County Board of Supervisors
El Dorado County Parks and Recreation Division
City of South Lake Tahoe
Tahoe Regional Planning Agency
Lahontan Regional Water Quality Control Board
State Water Quality Control Board, Water Rights Division
South Lake Tahoe Public Utility District
U.S. Forest Service, Lake Tahoe Basin Management Unit

Tahoe Paradise Resort Improvement District
U.S. Army Corps of Engineers
California Department of Justice
California Tahoe Conservancy
California Department of Water Resources
El Dorado County Department of Transportation
South Lake Tahoe Community and Leisure Services

Firms:

American Golf Corporation

Organizations:

League to Save Lake Tahoe

Previous Park and Recreation Commission Actions

The California Park and Recreation Commission classified Lake Valley State Recreation Area in March 1987 pursuant to Section 5019.56 of the Public Resources Code. In addition, the commission adopted a Declaration of Purpose for the unit on the same date. These actions by the commission assured continuation of the golfing activity and the then-existing winter recreation activity as a formalized departmental objective. The texts adopted by the commission are presented in their entirety in the Resource Element of this document.

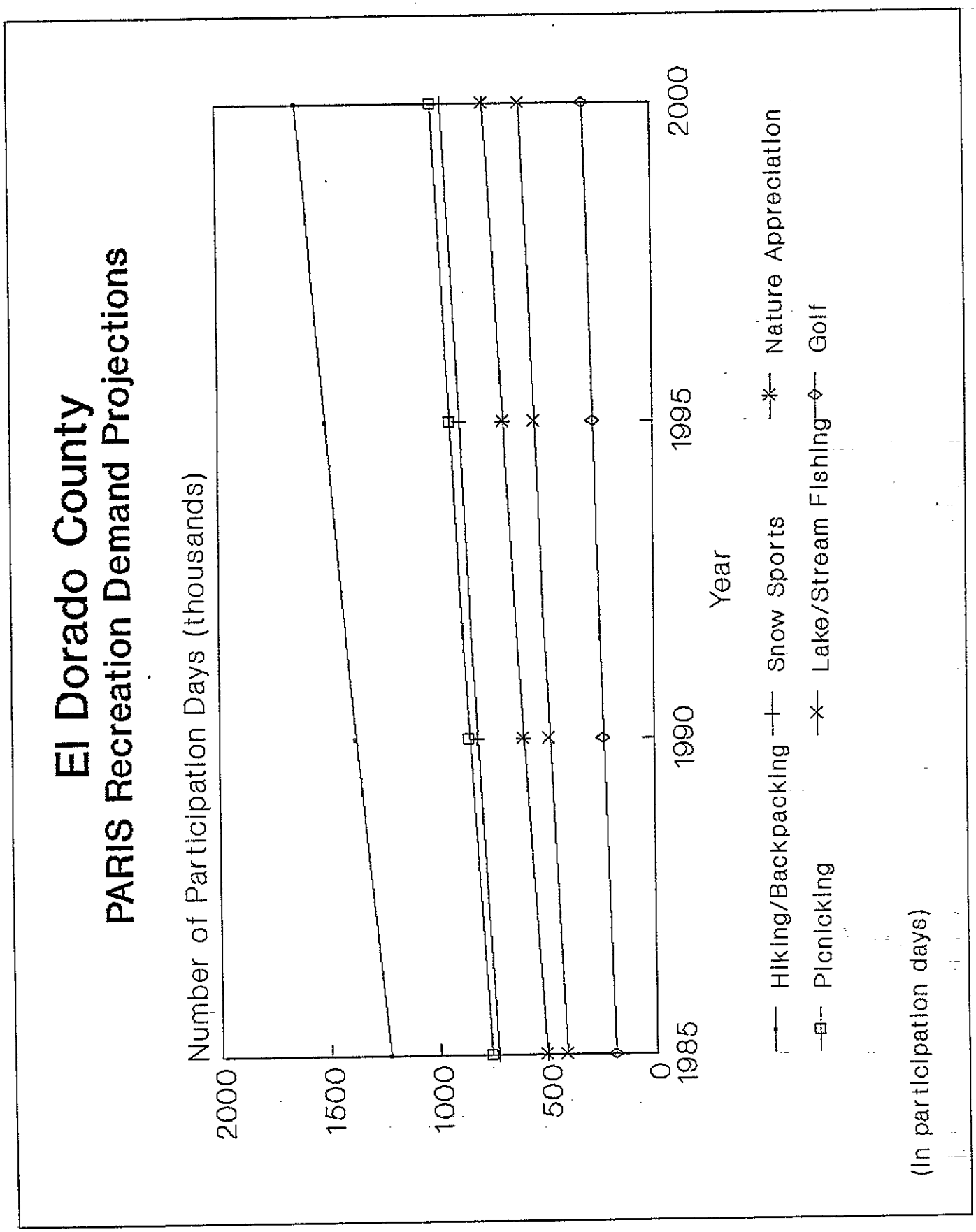
Regional Recreation Profile

The attached graph (Table 1) depicts projected recreation demand for El Dorado County in which Lake Valley SRA is located. These recreation demand projections were derived from the department's Park and Recreation Information System (PARIS).

PARIS is a database containing information relating recreation use and projected recreation demand. It is based on data obtained in the Statewide Recreation Needs Analysis survey, which was administered to approximately 1,000 respondents during each of four seasons -- summer 1978, fall 1979, winter 1979-80, and spring 1980. Respondents provided information regarding the types of recreation activities in which they participated, how far they travelled to participate in these activities, the types of recreation activities in which they wished to participate, and how far they were willing to travel to do so. The Statewide Recreation Needs Analysis examined the relationship between respondents' socioeconomic characteristics and their participation in recreation activities. Projected changes in the size and demographic composition of California's population were also factored into the analysis.

In PARIS, recreation demand is expressed in terms of "participation days," meaning one person's participation in a specific activity on a given day. If an individual participates in more than one activity on a single calendar day, one participation day is registered for each separate activity.

Table 1.


El Dorado County
PARIS Recreation Demand Projections
Number of Participation Days (thousands)
2000
1500
1000
500
0
1985
1990
1995
2000
Year
Hiking/Backpacking
Snow Sports
Nature Appreciation
Picnicking
Lake/Stream Fishing
Golf
(In participation days)

PARIS projections can be useful in determining which activities are most in demand within a given county or planning district.

Based on the PARIS projections, the graph shows the future participation days that will be demanded in El Dorado County for six recreation activities. The activities selected as most relevant to Lake Valley SRA were golf, hiking and backpacking, lake and stream fishing, nature appreciation, picnicking, and snow sports. Of these activities, hiking and backpacking exhibits the highest projected demand. This activity also shows the sharpest increase over the relevant period. The second highest projected demand is for picnicking, followed closely by snow sports.

Unit Ownership

At the time of classification of this unit in March 1987 it contained approximately 169 acres. Recent additions have increased the size of the unit to approximately 181 acres (see boundary on Map 3).

The proposed boundary for the unit (shown on Map 5) encompasses some undeveloped adjacent lands and inholdings that would provide:

- A buffer between the golf course and adjacent land uses.
- An area for day-use activities.
- Important watershed areas for protection of Angora Creek and the Upper Truckee River.

This boundary, which includes approximately 248 acres, is intended for long-range planning purposes only and does not represent a commitment to acquire.

Conformance to Local Plans

Public concern for the fragile Tahoe basin environment has led to the establishment of increasing development controls and permit processes overseen by a number of agencies at the local, state, and federal level. The department shares the intent of these agencies in protecting the environment while meeting its mandate to provide for the recreational needs of the citizens of California.

This general plan was prepared in consultation with the various control agencies and the proposals contained herein are intended, to the extent practical, to assure conformance to all applicable planning requirements.

In response to those requirements, the plan provides considerably more detail, in some respects, than normally would be the case with a land use planning document. It should be noted that subsequent to commission approval of this document, and prior to implementation of specific development projects, detailed plans will be prepared. Necessary permits will be applied for, complete with appropriate environmental assessments.

RESOURCE ELEMENT

RESOURCE ELEMENT

This Resource Element was prepared to meet requirements set forth in Section 5002.2, Subsection (b) of Division 5, Chapter 1 of the Public Resources Code and Chapter 1, Section 4332 of Title 14 of the California Administrative Code. In compliance with this section of the Public Resources Code, the Resource Element sets forth long-range management objectives for the natural and cultural resources of the unit. Specific actions or limitations required to achieve these objectives are also set forth in this element; maintenance operations and details of resource management are left for inclusion in specific resource management programs that will be prepared at a later date.

The Resource Element has two main parts. The first includes a brief summary of the unit's resources, the unit classification, the Declaration of Purpose, and the Zone of Primary Interest. More detailed information on these subjects is on file with the Department of Parks and Recreation. The second part deals with policy formulation.

Resource Summary

Natural Resources

Topography

Lake Valley State Recreation Area is located near the eastern California state line in the central Sierra Nevada geomorphic province. The unit lies in the northwest corner of Lake Valley, which is nestled in the Sierra Nevada just south of Lake Tahoe within the Lake Tahoe basin. Lake Valley extends south of the unit; it is the floodplain of the Upper Truckee River.

The unit is relatively flat. The elevation ranges from slightly less than 6,280 feet at the level of the watercourses in the northeast corner to less than 6,320 feet along the southeastern edge, with the majority of the relief being provided by golf course sand traps.

Several mountain peaks are visible from the unit, including Flagpole Peak (8,363 feet) and Becker Peak (8,300 feet) to the southwest. Moderate hills rise 2,000 feet from the level of the unit to the 6,600-foot base of the ridge lying to the west. The ridge is topped by two peaks, Echo Peak (8,895 feet) and Angora Peak (8,588 feet). Angora Lookout, at 7,290 feet, is the northernmost extension of this ridge, which trends slightly southwest to northeast. To the north is Tahoe Mountain, topped by two peaks at 7,249 and 7,127 feet. This mountain runs perpendicular to Angora ridge, trending generally from southeast to northwest. The closest mountain to the unit, Twin Peaks, lies immediately north/northeast. It trends parallel to Angora ridge on the west of the project and rises steeply from the northeast boundary to its double crest, with elevations of 6,880 and 6,971 feet.

Meteorology

The climate of Lake Valley State Recreation Area, like that of the overall Lake Tahoe basin, is strongly influenced by topography. It is a climate of warm, usually dry summers, interrupted by occasional thundershowers, and cold, wet winters, which can be severe. The average annual precipitation is 36 inches, with most falling as snow during the winter months, December through March. Snow accounts for 75 to 80% of the total precipitation, with an average annual snowfall of 200 to 325 inches. The snow season, with continuous snow cover, is from early December to mid-April. Precipitation varies from year to year, and there is the potential for extremely severe rain and snowstorms. When rain is added to the snowmelt, this can result in very high runoff.

The average winter daytime temperatures range from 35 to 40°F, with nighttime lows of 15 to 20°F. Average summer temperatures are 75 to 80°F during the day and 35 to 40°F during the night. Summertime evaporation is nearly as great as winter precipitation, resulting in an overall semiarid climate.

Topographical barriers to the west and east tend to funnel winds into the Lake Valley area. Moderate winds blow occasionally, particularly from the southwest and west.

The Lake Tahoe basin is susceptible to serious air pollution. The bowl shape of the air basin and the frequent occurrence of a temperature inversion lead to collection and poor dispersion of air pollutants during morning and evening hours. Automobile exhaust emissions, including particulate matter, nitrogen oxides, lead, carbon monoxides, and various hydrocarbons, are considered to be the most damaging type of air pollutants in the Lake Tahoe basin. Smoke from suburban burning, slash burning, and asphalt batch plants, dust from roads and construction sites, and naturally produced terpenes add to vehicle emissions, creating the raw materials for photochemical smog reactions. The sunlight has a higher proportion of ultraviolet light due to the high altitude and less atmosphere overlying the region. Acting on the noxious chemicals in the air, the sunlight of increased intensity forms haze, nitrogen dioxide, ozone, and a variety of other compounds. Summer and fall have the most stable atmospheric conditions, and with the low level of inversion (below about 6,700 feet elevation), the emitted pollutants are concentrated into a smaller total volume of air and peak concentrations are relatively high. The resulting smog irritates the eyes, has the definite potential for adversely affecting human health, damages some plants, and reduces visibility, thereby obscuring the scenery.

Hydrology

Lake Valley State Recreation Area lies within the Lake Tahoe Basin Hydrologic Area. This watershed encompasses Lake Tahoe and its tributaries. It has a total drainage area of 324 square miles. The Upper Truckee River, originating south of Lake Tahoe, is the major inflow to the lake. The Truckee River drains Lake Tahoe from the northwest end, flowing northeast through Reno, Nevada, and terminating in Pyramid Lake, a lake with no outflow.

Hydrologic characteristics in the watershed are closely related to seasonal and cyclic weather patterns. Sources of water originate from precipitation in the form of snow and rain. The majority of surface water runoff and groundwater recharge occurs as the snowpack melts from late March to May.

The unit encompasses a portion of the Upper Truckee River along the western boundary. Lake Valley State Recreation Area comprises less than 1% of the Lake Tahoe watershed.

Records of destructive floods in the Lake Tahoe region date back as far as 1861. The hazard of flooding and potential loss of life and damage to property and resources has been further increased by development. Urban and residential development have encroached upon the floodplains of waterways such as the Upper Truckee River, and an increase in impervious and/or bare areas such as roads, rooftops, and ski slopes has greatly increased the potential for rapid runoff, overland flow, sedimentation, and buildup of floodwaters.

Water quality problems in the Lake Tahoe basin have been the focus of many studies. The influx of nutrients, especially nitrogen and phosphorus, into the lake from sediment loading and fertilizers encourage eutrophication and algal blooms, which reduce Lake Tahoe's unique clarity. Human activity in the Tahoe basin has more than doubled the natural deposition of nutrients into the lake. Fertilization of golf courses in the watershed has been identified as a significant source of added nutrients to the lake. Stream bank erosion aggravated by upstream disturbances, such as logging which increases sediment loading; is also a significant source of nutrients.

The Upper Truckee River is the largest tributary to Lake Tahoe. In the unit area, the channel of the Upper Truckee River is characterized as being wide (average of 33 feet) with a low gradient (about 12 feet/mile). The substrate is composed predominantly of cobble and gravel in the riffles and sand in the pools and runs. Pools are usually associated with structures or obstructions found on outside bends. The river is open and exposed, has actively eroding banks, and carries a substantial amount of fine sediment.

Angora Creek, a major tributary to the Upper Truckee River within the river's lower six-mile reach, is characterized by a meandering narrow channel (2-8 feet wide) with a low gradient. In comparison to the Upper Truckee River in the unit area, Angora Creek has less developed pools and riffles. Streambanks are generally well vegetated and stable; however, some areas are undergoing erosion.

The golf course contains several ponds. The substrate of the ponds is a coarse granite sand, covered with a fine organic muck. The water is fairly clear in most of the ponds, but because they catch irrigation water, possibly containing herbicides, pesticides, and fertilizers from the golf course, the quality of the water is questionable. The shallower ponds probably freeze completely during the winter.

Geology

Lake Valley SRA is within the Sierra Nevada geomorphic province, although the regional structural history has great affinity with the Basin Range geomorphic province to the east, which is characterized by normal block faulting associated with crustal extension. The southern Lake Tahoe basin is made up of granitic rocks carved and shaped by glaciation and blanketed with glacio-fluvial deposits of moraines and outwash associated with the depositional and melting phases of the glacial periods. Most of the unit area was a lake during glacial times, and even today the southeastern part is known as Lake Valley. Densely vegetated glacial moraines occur in the northern and western parts of the unit area. These deposits are poorly sorted, with large and small rounded granitic boulders incorporated in a mixed matrix of sand, silt, and gravels.

The banks of the Upper Truckee River experience failures as a result of spring runoff, impacting the landscaped golf course as well as natural vegetation along the eastern and mid part of the project.

Groundwater levels are very high in the meadows, making the soils extremely vulnerable to compaction and disturbance.

The geological hazards most likely to affect the unit include seismic shaking from fault activity along the Sierra Nevada frontal fault or related systems, liquefaction of saturated soils in response to seismic shaking, ashfall from a volcanic eruption in the Mono-Long Valley area, and erosion of loose erodible soils, especially in disturbed areas.

Soils

Lake Valley SRA is located in a region of California dominated by ultisolic soils with acid reaction and low available phosphorus. However, in the Tahoe basin, the three soil orders represented are alfisols, entisols, and inceptisols. Within the Tahoe basin, the parent material is primarily granitic.

The soils present in the unit are primarily alluvial in nature and/or derived from glacial moraines and outwash fans in glacial deposits. Major constraints are from seasonal flooding in low-lying areas. Additional limitations include excessive rockiness and shallow soil depths. Erosion hazard is moderate, except in disturbed areas such as the banks of Upper Truckee River where erosion may be severe.

Plant Life

Lake Valley State Recreation Area is located in the Sierra Nevada Floristic Region of the California Floristic Province. Nearly 200 vascular plant species have been identified as occurring in the unit. Of these, approximately 90% are native to California and 10% are introduced species.

A maintained golf course turf and its associated facilities dominate the unit. Three native plant communities are represented in the remaining undeveloped land: lodgepole pine forest, sedge meadow, and willow riparian scrub.

The lodgepole pine forest occurs along the north and west boundaries of the unit. It is dominated by lodgepole pine (Pinus murryana); associated trees include white fir (Abies concolor) and Jeffrey pine (Pinus jeffreyi). Canopy coverage ranges from 50 to 95%. The shrub understory is sparse and dominated by Basin sagebrush. The herbaceous understory is variable depending on site conditions such as soil moisture and percentage of shade.

The sedge meadow plant community occurs along Highway 50 north and south of the golf course clubhouse. Another stand occurs immediately southwest of the golf course near the east bank of the Upper Truckee River. The community is dominated by several species of sedge (Carex spp.) with an average percentage cover of 90. Associated species include native wildflowers. Based on the species composition of the more pristine meadows in the adjacent Washoe Meadows State Park, these meadows had much higher species diversity prior to grazing and were probably co-dominated by knotweed (Polygonum bistortoides). The exotic species common dandelion (Taraxacum officinale) is widespread and capable of naturalizing.

Riparian vegetation or willow scrub occurs along the Upper Truckee River. Dominants are willows (Salix spp.) with a coverage of 20 to 30% and a height of up to 8 feet. Associated herbs include cows parsnip (Heracleum lanatum), horsetails (Equisetum arvensis), mountain bluebells (Mertensia ciliata), rushes (Juncus spp.), and sedges (Carex spp.).

Past disturbances to vegetation include logging, grazing, and golf course construction.

No rare and/or endangered plant species listed by the state and federal governments and the California Native Plant Society are known to occur at Lake Valley State Recreation Area.

Animal Life

Terrestrial Animal Life

Wildlife habitat is a vital component of the terrestrial environment at Lake Valley State Recreation Area. Two of the most important wildlife habitats, in terms of productivity, are wetlands and riparian areas. Both of these habitats are present and significant in the study area, which includes the unit and adjacent vacant lands.

Wetlands (wet meadows and ponds) and riparian areas (willow thickets) occur along the Upper Truckee River, are important for fish and wildlife foraging, reproduction, and escape cover, and are recognized as two of the most critical habitats needing preservation in California.

There are five biotic communities in Lake Valley SRA. These are middle mountain forest, streamside woodland, middle mountain meadow, freshwater areas, and manicured turf (the golf course).

The middle mountain forest at this elevation (about 6,000 feet) is primarily a pine forest dominated by lodgepole pine, comprising about 17% of the study area. It occurs in open to closed stands with an herbaceous understory where open, and a shallow litter layer where closed. Birds are the most conspicuous animal present, though the forest provides habitat for diverse kinds of animals.

The streamside woodland is not well developed or extensive and covers about 5% of the study area. It is not distinct from the surrounding mountain forest. In other places, this habitat is composed of willow thickets, while elsewhere there may be little or no streamside woodland at all. Where willow thickets occur, birds are especially abundant, both feeding and nesting here.

The middle mountain meadow biotic community, representing about 25% of the study area, is a wet-meadow community associated with streams that flow through and saturate low areas. These meadows are usually fringed and surrounded by forest. Plants in these areas attract a variety of animal life species, especially during flowering season.

Freshwater areas include the Upper Truckee River, Angora Creek, the golf course ponds, a sediment trap near the parking lot, and other depressions that fill with water at least seasonally. These inundated areas account for about 6% of the study area. These areas are significant to terrestrial animal life, particularly waterfowl and other avifauna attracted to these areas to reproduce. Mallard ducks and at least two kinds of blackbirds breed and nest around shallow, still water areas. Canada geese are known to nest in the near vicinity. The bullfrog is a common, though introduced amphibian.

The manicured turf is primarily irrigated grasses with some scattered trees. It represents the most extensive biotic community, covering about 47% of the study area. The golf course occupies terrain that was formerly forested, wet meadow, and streamside riparian habitat. Animal life in the manicured turf is most typical of the drier areas of the middle mountain meadow biotic community. Birds are the most conspicuous animal life present in these areas. The Lake Tahoe basin is along the path of a major migratory waterfowl flyway, and during late summer or fall, several hundred Canada geese may occupy the turfed areas on a daily basis. These birds use the area to graze and rest. Rodents and their burrows are also noticeable when the snow cover has melted.

Many animal species in the mid to upper elevations of the Sierra Nevada are seasonal and migratory, due to the severity of winter climatic conditions. They arrive in the spring, spend the summer, and depart in the fall, with the change in seasons. Many of those that remain spend the winter in a state of dormancy or reduced activity.

Each of the biotic communities at the study area exhibits a wide variety of animal life. Vertebrate animals representative of these habitats are listed in the following table.

REPRESENTATIVE TERRESTRIAL VERTEBRATE ANIMALS BY BIOTIC COMMUNITY

	Middle Mountain Forest	Streamside Woodland	Middle Mountain Meadow	Freshwater Areas	Manicured Turf
Mammals	Lodgepole chipmunk Golden-mantled ground squirrel Douglas squirrel Mule deer Black bear	Raccoon Mink Striped skunk Muskrat Beaver Gray fox	Broad-footed mole Montane vole Mountain pocket gopher Long-tailed weasel Badger Coyote Snowshoe hare Bats	Beaver Muskrat Mink Raccoon	Ground squirrels Broad-footed mole Montane vole Mountain pocket gopher
Birds	Northern flicker White-headed woodpecker Steller's jay Clark's nutcracker Mountain chickadee Nuthatches Creeper Hermit thrush Townsend's solitaire Western tanager Pine siskin Dark-eyed junco	Wood duck Cooper's hawk Spotted sandpiper Belted kingfisher Hairy woodpecker Swallows Flycatchers Kinglets Yellow warbler Dipper Black-billed magpie Purple finch	Canada goose American kestrel Mourning dove Killdeer Common nighthawk Calliope hummingbird Swallows American robin Mountain bluebird Western meadowlark Western kingbird Brewer's blackbird Lesser goldfinch Chipping sparrow Mallard	Canada goose Mallard Brewer's blackbird Red-winged blackbird Swallows Flycatchers	Canada goose American robin Flycatchers Mallard Song sparrow Brewer's blackbird
Reptiles	Sagebrush lizard Rubber boa Racer	Northern alligator lizard Garter snakes	Western fence lizard Gopher snake Common kingsnake	Western aquatic garter snake	Garter snakes
Amphibians	Western toad Pacific tree frog	Sierra Nevada salamander Mountain yellow-legged frog	Western toad Long-toed salamander Sierra Nevada salamander Northern leopard frog	Bullfrog Northern leopard frog Mountain yellow-legged frog	Bullfrog Northern leopard frog Mountain yellow-legged frog

Table 2.

Historically, wildlife was more abundant and diverse. Urbanization and other habitat changes have brought about reduced populations of certain species. The larger mammals have been the most affected, including mule deer, coyote, black bear, and mountain lion.

Stray dogs and cats are harassing and preying on wildlife.

The beaver, an introduced species in the Sierra, is having a detrimental effect on the terrestrial and aquatic ecosystems. Beavers fell streamside trees and burrow into streambanks, significantly reducing vegetation and causing soil erosion.

Three state (S) and federally (F) listed endangered (E) or threatened (T) animals, including two mammals and one bird, may occur within the unit. There are also eight species that may be present that are considered sensitive (FS) by the federal government (Forest Service), which makes them candidate species for listing. The state's list of sensitive species (SS) includes 10 species that may be present. A fully protected animal in California that may occur is the ringtail. While only the yellow warbler and willow flycatcher have been confirmed in the unit recently, Lake Valley SRA is within the distributional range of the other species and suitable habitat is available.

STATE AND FEDERAL ENDANGERED, THREATENED, AND SENSITIVE ANIMALS

Sierra Nevada red fox (ST, FS)
Wolverine (ST, FS)
Sierra Nevada snowshoe hare (FS)
Spotted bat (FS)
Bald eagle (SE, FE)
Golden eagle (FS, SS)
Northern goshawk (FS, SS)
Osprey (FS, SS)
Spotted owl (FS, SS)
Short-eared owl (SS)
Northern harrier (SS)
Cooper's hawk (SS)
Sharp-shinned hawk (SS)
Yellow warbler (SS)
Willow flycatcher (SS)

Aquatic Animal Life

The freshwater biotic community is represented by the Upper Truckee River and Angora Creek, and by nine artificial ponds serving as water traps/hazards for the golf course.

The living component of the aquatic system in the Upper Truckee River and Angora Creek is composed of aquatic vegetation, aquatic invertebrates, fish, and amphibians. Algae and other aquatic plants, mosses, and liverworts make up the vegetation associated with the aquatic habitat.

Benthic organisms are an important part of the aquatic life. Aquatic invertebrates include stoneflies, caddisflies, mayflies, dragonflies, water striders, water boatmen, backswimmers, and aquatic snails.

The ponds support vegetation, such as submerged pond weed and algae, sedges, and rushes along the shores, and some ponds have cattails and shrubby willows. The ponds provide habitat for a variety of aquatic life such as aquatic insects, the aquatic larvae of terrestrial insects, introduced fishes, and frogs. Several birds also make use of the food and cover opportunities offered by the ponds.

Today's fishery includes several introduced game fish, the rainbow trout, brown trout, eastern brook trout, Kokanee salmon, and brown bullhead, as well as the native fish, the Piute sculpin, Lahontan redside, mountain whitefish, Lahontan speckled dace, Tahoe sucker, and Lahontan tui chub. The Upper Truckee River has been cited as a primary spawning stream for the fall-spawning brown and eastern brook trout, and also provides spawning habitat in the spring for rainbow. Brown bullhead have been observed in some of the golf course ponds, but the water quality, aeration of the water, and winter freeze may limit the habitat opportunities for fish life.

A native species now gone from the basin is the Lahontan cutthroat trout. Dams, diversions, overfishing, logging, introduction of nonnative species, and pollution caused this fishery resource to disappear. The Lahontan cutthroat trout occurs outside the basin and is currently listed as threatened by the federal government. Plans are currently being discussed to reintroduce this species into the headwaters of the Upper Truckee River.

As recently as 30 years ago, the Upper Truckee River was an important spawning area for rainbow and brown trout from Lake Tahoe. The river was initially degraded by grazing activities and then by urban developments. Within the past century, and particularly during the last 20 years, the aquatic environment within the Tahoe basin and the unit area in particular has undergone definite changes, including loss of riparian vegetation, increased erosion and sedimentation, increased nutrient input, and decreased water quality, all issues important in this unit.

Loss of riparian vegetation occurs primarily through channelization and erosion control projects using rip-rap and similar methods. There are several results: loss of vegetable matter input into the stream, a primary source of aquatic invertebrate and vertebrate food; loss of habitat for terrestrial insects, many of which are adult forms of aquatic invertebrates; less shading and insulation for the stream water, leading to warmer water that can hold less dissolved oxygen; less efficient filtration for surface runoff waters that may contain pollutants; and loss of cover for fish and other forms of aquatic life.

Streambanks are unstable in the unit, which produces excessive sediment seriously degrading aquatic habitat. This occurs by sediment filling in the spaces between the gravel, thereby decreasing the habitat for aquatic invertebrates and destroying gravel spawning beds, as well as by covering and suffocating aquatic invertebrates, fish eggs, and aquatic plants. Sediment also fills in pools, decreasing the habitat for larger fish. Increased sediment can change a diverse stream with riffles, runs, and pools to a homogeneous, sandy, shallow run with less habitat for any aquatic life form and less area for large fish.

Increased nutrient input in many forms, including fertilizers, pesticides, and herbicides, all common golf course maintenance materials, is an issue for the unit as well as for the entire Lake Tahoe basin. Aquatic invertebrates, a primary source of fish food, are sensitive to changes in water quality, as are trout. As water quality decreases, pollution-tolerant forms increase, changing aquatic species composition and, consequently, the food web.

Water quantity is an issue in the increasingly developed Lake Tahoe basin, and water extraction can have serious impacts on aquatic life during the summer season. Extraction of water from the stream below natural stream flow during critical low-water periods reduces flow, leaves a smaller volume of water for the sun to warm, lowers levels of dissolved oxygen, and exposes gravel beds, the primary rearing site and habitat for aquatic invertebrates. Lower water can also impact riparian vegetation, also affecting aquatic life.

Ecology

Shaped primarily by glacial forces, the geologic features of the Lake Tahoe basin play an important role in the natural environment of Lake Valley State Recreation Area. Extensively glaciated during the Pleistocene, the canyons along the western side of the lake were scoured of their loose rock by four main glacial advances. The oldest glacial advances filled Lake Valley as far as the study area, building large moraines on the east side. Also during the older glacial advances, large ice streams moved into the northern outlet of Lake Tahoe, forming an ice dam and raising the level of the lake 600 feet above its present level. At this time, the Quaternary lake deposits of the area were formed. As the glaciers receded, melt-water carried silt and sand toward the lake, creating outwash fans and building thick deltas, and depositing the Quaternary alluvium in the area. These glacial deposits, derived from granitic rock, are the parent materials to the soils of the area, classified as alfisols, entisols, and inceptisols whose dominant soil characteristics are ultisolic soils with acid reaction and low available phosphorus. The drainage basin size, level alluvial plain, and its soils determine the hydrology of the area, the quality of the water, and the nature of the meandering streamflow.

The geology, soils, climate, and hydrology of the area determine the plant life growing there. In a narrow band bordering the streambanks, riparian vegetation grows with such moisture-loving species as willows, rushes, and horsetails. The level meadows host predominantly sedges with beautiful spring floral displays including whorled penstemon, knotweed, monkeyflowers, and potentilla. The somewhat higher and drier areas support sage and coniferous forest, primarily lodgepole pine, in the areas bordering the meadows.

The five biotic communities and relatively small area of the unit support a diversity of wildlife. The wet environment makes for an abundant insect life including water striders, flies, and gnats, and the wildflowers attract many bees. The insects, in turn, attract insect-eating birds such as the western kingbird and other flycatchers, the common nighthawk, and several kinds of swallows. A diversity of birds occurs in the unit, including the yellow warbler, a species of concern due to loss of its riparian habitat throughout its range; the flashy Clark's nutcracker; and the Canada goose, attracted by the grassy meadow/golf course. Mammals inhabiting the unit include chipmunk, raccoon, deer, and coyote, and introduced beaver, which are particularly attracted to the waterways.

The biotic components of plant and animal life, together with the abiotic environment in which they live, form the ecosystem. An example of the interdependence of these environmental components begins at the abiotic level. The topography of the bowl-shaped Lake Tahoe basin and the meteorological characteristics of the area, such as the windflow patterns,

combine to make the area highly susceptible to air inversions. Human-caused emissions, particularly ozone and sulphur dioxide from cars, are trapped in the basin by the temperature inversions and are altered by sunlight, forming photochemical smog.

Smog affects the conifers in the basin, significantly reducing the oleoresin exudation pressure, resin yield, and rate of resin flow. These physiological effects of smog, labeled as chlorotic decline disease, reduce growth and increase mortality in the conifers. These physiological factors were once physical barriers to pine bark beetle infestations, but when they are reduced by chloritic decline, the trees are predisposed to pine bark beetle infestation. Although a great number of birds in the area, such as several kinds of woodpecker, red- and white-breasted nuthatches, Northern flicker, and brown creeper, eat bark- and wood-boring insects, they can't control the pine bark beetles. Epidemic in the Truckee River drainage, the pine bark beetle preys on trees weakened by other factors such as chloritic decline. The success of this insect is closely tied to the workings of the rest of the ecosystem.

Cultural Resources

Lake Valley State Recreation Area, and neighboring Washoe Meadows State Park, were surveyed for cultural resources in 1985 and 1986. While many prehistoric and historic sites were recorded at Washoe Meadows State Park, no cultural resources were observed at Lake Valley State Recreation Area. Lack of cultural resource evidence at Lake Valley may be the result of modification of the landscape required by construction of a golf course.

Lack of any recorded prehistoric or historic resources at Lake Valley State Recreation Area doesn't mean that the area was outside the flow of history for the Tahoe area. Native Americans were first known in this part of the Sierra Nevada by the archeological culture, Tahoe Reach (6,000-5,000 B.C.). This phase is represented by large Parman projectile points. The following Spooner Phase (5,000 to 2,000 B.C.) is associated with an Altithermal period. Subsequently, there are five phases: early, middle, and late Martis (2,000 B.C. to A.D. 500), and early and late Kings Beach (A.D. 500 to Euroamerican contact). At this contact, the Tahoe basin and Lake Valley State Recreation Area were the ethnographive territory of the Washoe Indians. The oval-shaped Washoe territory surrounded Lake Tahoe and encompassed approximately 13,000 square miles. The Washoe inhabited the western Great Basin from Honey Lake southward to the Walker River, with Lake Tahoe as the center of their universe.

Seasonal movements and even household organization reflect the careful use of the Washoe environment through their fishing, gathering, and hunting seasons. Following the long, harsh winters spent in the lowland valleys of the Great Basin, the Washoe moved to exploit the rich resources of Lake Tahoe, the high mountains, and their western slopes. By early June, almost all the Washoe had moved to Lake Tahoe, with the Sierra Valley and Honey Lake people to the north and those from Carson Valley, Woodfords, and other southern settlements at the south end. The spring spawning runs of trout and sucker brought intense economic and social activity and the largest concentration of Washoe during the year. Later in the summer, the households dispersed to the high mountain camps and lowland rivers to gather and grind berries and seeds, to fish, and to collect minnows.

In the fall, gathering intensified with the harvest of the Washoe staple, the pinon nut. Pinon nuts were collected, carried to the winter camp, and ground into flour. The gumsaba, or Big Time, was held to ensure a good harvest, and small and large game hunting took place. Communal rabbit hunts were a common occurrence, as were communal antelope hunts led by the rabbit boss and the antelope shaman, respectively. The pinon harvest was still an important economic activity in the mid-20th century.

As winter approached, the Washoe dispersed to their galesdangl or winter homes in the eastern valleys. The nuclear and extended families that lived in a galesdangl might also include unrelated persons and were occasionally polygynous. Each household owned pinon nut plots (marked off by stones), fishing traps, and platforms, while the right to hunt eagles in a certain area was inherited by a son from his father. Four to ten galesdangl, or households, located within a small area formed a very fluid band or social unit that anthropologists call a bunch. A bunch tended to move together, form hunting parties, and seek counsel from the wise male or occasionally female leader. Warfare by raiding parties, usually retaliatory, was purely voluntary and cut across the northern, eastern, and western regions by which each household and bunch were known. Washoe from Woodfords and Markleeville were valued for their bravery and potential for supernatural power in warfare.

The Washoe were relatively unaffected by Euroamerican contact until after 1859 when the Nevada silver miners, and then the ranchers and farmers, settled in Washoe territory. Conflict accompanied the environmental change, but the Washoe adapted to new gathering areas and plants; also, day labor, farming jobs, trading, and fishing for profit became new economic pursuits. In the 1880s, Washoe households set up permanent camps near lumbering operations, and families or "bunches" established regular relations with ranch families. The large number of Native American sites recorded in adjoining Washoe Meadows State Park indicates Native American use, at some time, of the 181 acres that make up the state recreation area.

Early Euroamerican economic and settlement activities in the area of the unit can be traced to the 1850s. Martin Smith built a station that functioned as a trading post in upper Lake Valley in 1851. Several people built additional log cabins in the valley after several articles appeared in the Placerville Herald in 1853 alleging gold strikes in the area. With the Marlette-Day Sierra wagon road route surveyed across Johnson Pass into Lake Valley (1856), there was a certain official recognition of the trans-Sierra route into Lake Valley. In 1856, Martin Smith became a partner of Jim Muir, rebuilding Martin Smith's station, which had burned in July 1855. On a larger scale than the first station, it consisted of several buildings, corral, and stable. In April 1858, Muir sold his interest to George N. Douglass and, in 1859, Smith and Douglass sold to Ephraim ("Yank") Clement, a name well known in the area today. "Yank's Station" became the name in common usage of the day; it was recognized as an excellent station with all the attributes of a "flourishing settlement." The station was assured immediate economic success with the occurrence in 1859 of Nevada's Comstock Bonanza.

When the Central Pacific Railroad was completed through present-day Reno (then called Lake Station) in 1868, use of the Johnson Pass road through Lake Valley declined. Nevertheless, George Henry Dudley Meyers bought Yank's Station from Ephraim and Lydia Clement June 27, 1873, in time for the Second Comstock Bonanza.

Many of the early family names are still known to local residents (e.g., Celio and Patterson), but the present-day automobile traveler through the area would be more familiar with the names of (George) Meyers, (Samuel) Kyburz, or (Cesare) Forni, each of whom, at one time, owned land in the area of Lake Valley State Recreation Area and the adjoining Washoe Meadows State Park.

Carlo G. Celio, a native of Switzerland, was a dairyman with his business in Placerville as early as the 1850s, and eventually used Lake Valley for summer pasturage. While Carlo Celio was active in the valley quite early, including owning land there, he did not actually buy any property in the area of the state recreation area until 1903 when George Meyers sold to him. Ultimately, the Celios owned 2,600 acres in the valley, and their butter and beef were well known in California and Nevada; also, their timber helped build South Lake Tahoe resorts and summer cabins.

While Meyers was doing well at the old Yank's Station with the resurgence of traffic along the wagon road for the Second Comstock Bonanza, the unit area was directly affected by lumbering to supply the wood needed by the Nevada mines and buildings. Property within the unit was originally patented in the 1870s for the most part. During the 1870s and 1880s, both land and timber rights were sold to the Carson and Tahoe Lumber and Fluming Company or the El Dorado Wood and Flume Company (the companies were related by overlapping partnerships).

The Carson and Tahoe Lumber and Fluming Company built two railroads into Lake Valley to get the timber out to the mines in Nevada. The first line was a broad gauge that ran from present-day Camp Richardson about four miles into the valley. Two hundred and fifty thousand board feet per day were hauled to the lake. A disagreement between the company and the person who built the railroad caused its abandonment. The company then built a narrow gauge line along the eastern and southern edges of the valley, then to Meyers, and beyond to the Upper Truckee River (general area of the state recreation area). From here, spur lines fanned out into the forest. During the 1870s and 1880s, the company, under direct management of D. L. Bliss, exploited the timber resources of Lake Valley, employing hundreds of men, and requiring importation of food and supplies from the Sacramento and Carson valleys. Although mining continued in Nevada into the 20th century, by the 1890s there was no longer a need for the tremendous supply of wood. Logging camps were abandoned, and the narrow gauge railroad was moved in 1899 and began operating between Truckee and Lake Tahoe in 1900.

After the furious activity of lumbering and cattle and dairy activities to supply the Comstock mines in Nevada, Lake Valley generally settled into a quiet way of life in the 20th century. Cattle raising and dairying were typical through World War II. Lumbering continued on a reduced scale in the early 20th century. In the 1950s, recreational activities became more important to the area, especially as such activities developed in the South Lake Tahoe area. From the 1960s to the present, residential developments have become more prominent in the valley.

Esthetic Resources

Lake Valley SRA is situated within the Lake Tahoe basin, which is renowned worldwide for its natural beauty. The scenic resources of the unit are enjoyed primarily as a backdrop for visitors using the golf course and winter sports facilities. Rugged peaks, a meandering river, meadows, and forested slopes characterize the scenery. The changing of the seasons adds another dimension to the beauty of the area. Colorful wildflowers and the flush of green growth in spring and summer fades to the muted colors of fall, which in turn cycles to a stark, snowy Sierra Nevada winter.

Although pleasant natural areas surround Lake Valley SRA, negative esthetic features disrupt these qualities. The Lake Tahoe Airport lies within one mile northeast of the unit, and airplanes frequently pass overhead. From most portions of the unit, residential areas and/or Highway 50 are visible or heard. Sewer line manholes and power lines that service nearby residential areas run along portions of the Upper Truckee River and Highway 50, respectively.

Recreation Resources

The current recreational use at Lake Valley State Recreation Area includes golfing on the popular 18-hole championship course. Use most often occurs from May to October each year, during which time the course is often filled to capacity much of the day.

Beginning July 1 each year, trout fishing becomes an active recreational sport in the Lake Tahoe basin, and use of the Upper Truckee River, including that reach flowing through the SRA, is sought out because the river contains a significant fishery resource. Fishing and golfing can present a potential conflict, since the risk from being struck by a flying golf ball poses a significant danger to people fishing this part of the river.

During late fall and winter, when snow reaches sufficient depths, recreational use shifts to winter sports including snowmobiling and Nordic skiing. A snowmobile track is established at the golf course driving range in the southeastern portion of the unit. The parking lot serves as a trailhead for skiers. Skiers departing here gain access via a central cart path to a bridge crossing the river into Washoe Meadows State Park and adjacent U.S. Forest Service lands.

Though some passive recreation occurs at present, activities such as boating (canoes and kayaks), photography, painting, birdwatching, and other forms of nature study have the potential to increase significantly as the public becomes more aware of the status of this State Park System unit as a state recreation area. Significant recreational opportunities are or can be available here and at the contiguous Washoe Meadows State Park as interpretive programs and public facilities become established.

Resource Policy Formulation

Classification

The classification of a State Park System unit forms the foundation on which all management and development policies are based. Classification statutes contained in Article 1.7 of the Public Resources Code specify broad management objectives and improvements appropriate to units of the State Park System.

The land acquisition process that resulted in the establishment and classification of Lake Valley SRA began with acquisition of the Lake Country Estates project by the Wildlife Conservation Board in 1984. The purpose for acquisition is described in Chapter 1470 of the 1984 statutes as follows: "...to acquire as state lands an environmentally sensitive parcel of approximately 777 acres of land comprising wetlands, meadow, and wildlife habitat for the purpose of protecting a unique and irreplaceable watershed through which the Upper Truckee River supplies approximately 40 percent of the water flowing into Lake Tahoe, ...". The statute also transfers "...control and possession of the property to the Department of Parks and Recreation."

Acquisition of the project was authorized by the statute, which appropriated the sum of $5,697,000 for acquisition, restoration, and maintenance of the property. This purchase was a result of litigation entitled Lake Country Estates, Inc., et al., v. Tahoe Regional Planning Agency, et al. A provision of the statute requires that "the property shall be operated and maintained by the Department of Parks and Recreation in a manner which promotes its environmental and recreational values."

In March 1987, the State Park and Recreation Commission classified and named the project area as two separate State Park System units: Lake Valley State Recreation Area, approximately 169 acres, and Washoe Meadows State Park, approximately 608 acres.

Classification by the commission in 1987 brought management of Lake Valley State Recreation Area under the provisions of Public Resources Code Section 5019.53. This section is as follows:

> 5019.56. State recreation units consist of areas selected, developed, and operated to provide outdoor recreational opportunities. The units shall be designated by the commission by naming, in accordance with the provisions of Article 1 (commencing with Section 5001) and this article relating to classification.
>
> In the planning of improvements to be undertaken within state recreation units, consideration shall be given to compatibility of design with the surrounding scenic and environmental characteristics.
>
> State recreation units may be established in the terrestrial or underwater environments of the state and shall be further classified as one of the following types:

(a) State recreation areas, consisting of areas selected and developed to provide multiple recreational opportunities to meet other than purely local needs. The areas shall be selected for their having terrain capable of withstanding extensive human impact and for their proximity to large population centers, major routes of travel, or proven recreational resources such as manmade or natural bodies of water. Areas containing ecological, geological, scenic, or cultural resources of significant value shall be preserved within state wildernesses, state reserves, state parks, or natural or cultural preserves.

Improvements may be undertaken to provide for recreational activities, including, but not limited to, camping, picnicking, swimming, hiking, bicycling, horseback riding, boating, waterskiing, diving, winter sports, fishing, and hunting.

Improvements to provide for urban or indoor formalized recreational activities shall not be undertaken within state recreation areas.

Declaration of Purpose

A declaration of purpose describes the purpose of the unit and identifies the prime resources, long-range management objectives, and the relationship between the unit's resources and recreational uses.

Lake Valley SRA consists primarily of an 18-hole golf course bordering the scenic and ecologically sensitive Upper Truckee River.

It is uncommon that a golf course, an attraction in and of itself, is the primary feature within a unit of the State Park System. Classification as a state recreation area, however, recognizes the significance of the unit in perpetuating an existing quality public golfing opportunity in the increasingly popular Tahoe basin, where golfing demand far exceeds the opportunities.

The Upper Truckee River, which borders the golf course, is a major tributary to Lake Tahoe and as such is of vital importance to the health and quality of the lake. Golf courses, by nature, are intensively managed. If this is not done sensitively, it can cause significant water pollution. This is particularly critical in the fragile Lake Tahoe ecosystem with its eutrophication and nutrient loading problems.

The Declaration of Purpose for this unit, adopted by the State Park and Recreation Commission in 1987, focuses on these two major considerations. The Declaration of Purpose for Lake Valley SRA is as follows:

The purpose of Lake Valley State Recreation Area is to make available to the people for their enjoyment and inspiration the 18-hole golf course, and the scenic Upper Truckee River and its environs.

The department shall balance the objectives of providing optimum recreational opportunities and maintaining the highest standards of environmental protection. In so doing, the department shall define and execute a program of management within the unit that perpetuates the unit's declared values, providing for golfing along with other compatible summer and winter recreation opportunities while restoring the natural character and ecological values of the Upper Truckee River, protecting its water quality, and protecting and interpreting significant natural, cultural, and scientific values.

Zone of Primary Interest

The zone of primary interest is that area outside the unit in which land-use changes could adversely impact the resources of Lake Valley State Recreation Area. This zone includes all adjacent lands to the unit including residential areas and the State Highway 50 corridor. In addition, the department is concerned about all lands within the Upper Truckee River watershed, particularly upstream of the unit, and any lands no matter how far from the unit that can, through their development and use, adversely affect the resources and features within Lake Valley State Recreation Area.

Resource Management Policies

Natural Resources

Management Program for the Upper Truckee River on State Park System Land

As the largest tributary to Lake Tahoe, the Upper Truckee River is critically important to the quality and health of Lake Tahoe. Water quality, streambank stabilization, and the development and use of recreational features will all have a direct bearing on Lake Tahoe and the basin's environment. The Upper Truckee River is also the most significant natural feature in Lake Valley SRA, possessing significant scenic, recreational, and wildlife habitat values.

Due to activities in the area before State Park System acquisition, the Upper Truckee River currently is unstable, has an unnatural channel configuration, contains severe bank erosion and nutrient loading problems, and has been degraded, in part, both esthetically and as wildlife habitat.

The major focus of resource management for this unit will be the restoration, enhancement, and long-term protection of the Upper Truckee River.

Policy: A management program shall be prepared and implemented for the Upper Truckee River on State Park System land. The program shall include the establishment of a stream management sensitivity zone, the development of a river management plan, a resource element of the golf course management plan (see Operations Element), and the establishment of a water quality monitoring program.

Stream Management Sensitivity Zone

The stream environment along the corridor of the Upper Truckee River, including lands within Lake Valley SRA and portions of the contiguous Washoe Meadows State Park, encompass sensitive and significant ecological values. These include the interrelationships of flowing water and its physical confines, critical habitats such as gravelly substrate in streams, aquatic vegetation and invertebrates, fishery resources, streamside riparian vegetation and herbaceous ground cover, and associated wildlife.

Resources and ecological processes within this stream environment require special or additional attention in management. The delineation of a special management zone is a practical approach to identifying areas where special provisions of management are necessary.

> Policy: A Stream Management Sensitivity Zone is established consisting of a corridor along the Upper Truckee River that generally includes undeveloped and developed lands (golf course) of varying width, including the existing channel and high water channels and adjacent lands. The precise Stream Management Sensitivity Zone is shown on Map 5.
>
> This zone shall be used to identify areas needing special management actions, such as those areas to be developed for management of the golf course and restoration of natural stream configuration and bank stabilization. This zone shall also identify an area of special sensitivity for wildlife habitat and water quality protection needs.

River Management

Bank erosion along the Upper Truckee River is severe and is threatening the natural and recreational values of Lake Valley State Recreation Area. Bank erosion also contributes significantly to degradation of Lake Tahoe's water quality and clarity. Past actions to control bank erosion have possibly exacerbated the riverbank's instability problems by treating the symptoms and not the problems. Unsound stream stabilization efforts may also have degraded the habitat of aquatic invertebrates and fish. The Tahoe Regional Planning Agency and the Lahontan Regional Water Quality Control Board are intent on reducing accelerated or unnatural bank erosion to a minimum.

Preliminary evaluation by department staff of the river's present channel configuration has led to the belief that the river is out of balance with its natural sinuosity. Stream course obstructions, including large organic debris (fallen trees), sediments forming mid-channel and point bars, bridge footings, and bank armoring structures, have likely caused changes in the hydraulic geometry and gradients of the river. These changes can disrupt the river's ability to maintain equilibrium, causing serious bank erosion and loss of stabilizing vegetation.

Proper river management must begin with measures to correct this imbalance. Restoration of a natural channel design can be accomplished within the Stream Management Sensitivity Zone and without adversely affecting the golf course. This accomplished, bank stabilization measures will be more effective, environmentally sensitive, and less costly to maintain.

Policy: A River Management Plan shall be prepared and implemented on State Park System land. The purpose of the plan shall be to restore a more natural channel configuration, to control unnatural bank erosion rates, and to restore riparian habitat along the Upper Truckee River through the unit.

The plan shall include measures to rehabilitate the stream channel to an appropriate channel geometry and gradient conducive to bringing the Upper Truckee River back into natural equilibrium. Recognized and proven hydrological principles shall be applied to achieve channel and bank stabilization through natural fluvial processes. The plan shall also include restoration of riparian vegetation, and evaluation and design of an integrated bank stabilization system that is harmonious with ecological values and esthetics. Alternative methods of bank stabilization that minimize hard engineering (e.g., riprapping) shall be given foremost consideration.

Preparation and implementation of the plan shall be done in close cooperation with the Tahoe Regional Planning Agency, the Lahontan Regional Water Quality Control Board, and with the Coordinated Resource Management and Planning Committee, which is made up of owners of riverfront property between the two Highway 50 bridges near the unit.

Natural Resource Management Element of the Golf Course Management Plan

Of utmost importance to the department is the protection of the Upper Truckee River from nutrient loading or other pollutants that could potentially occur as a result of golf course management activities such as watering, mowing, spraying, and fertilizing.

Options available in golf course management, such as watering patterns and frequencies, types of fertilizers and their method of application, water conservation practices, and the disposal of cuttings, make a difference in the protection of the Upper Truckee River and the natural environment.

The golf course is also located in an area of significant ecological values. Important wildlife habitat exists along the corridor of the Upper Truckee River and in surrounding meadows and forests of Washoe Meadows State Park. The golf course, as well, provides important natural habitat for wildlife in ponds, in pockets of undeveloped forest, and in the open fairways as well.

Policy: It is the objective of the department in managing the golf course at Lake Valley SRA to protect the water quality of the Upper Truckee River and to maximize the ecological and wildlife habitat values where possible while fully maintaining the quality of the existing golf course for the golfing public.

To accomplish this, a natural resource management element of the golf course management plan shall be prepared and implemented. The element shall include:

- Evaluation and identification of golf course management practices that will provide the optimum protection of the Upper Truckee River and its natural organisms;

- Development of a program for implementing these practices as part of the golf course management plan, including watering, fertilizing, and dumping of clippings, and any other special measures both within and outside the Stream Management Sensitivity Zone;

- Evaluation and recommendations for redesign or rehabilitation of the golf course, including cart paths, impervious surfaces, and compacted soil or denuded areas, to minimize runoff and erosion; and

- Development of a program for managing and enhancing wildlife habitat values on the golf course, including the ponds, interior undeveloped natural areas, and fairways. The program shall include evaluation of these resources for their wildlife habitat value, a management plan consisting of appropriate actions, and monitoring of those actions to determine their effect.

Preparation and implementation of the element shall be done in close consultation with the Tahoe Regional Planning Agency and with the Lahontan Regional Water Quality Control Board.

Water Quality Monitoring Program

The department intends that management of the golf course at Lake Valley SRA minimizes the possibility of nutrient loading in the Upper Truckee River and Lake Tahoe as a result of golf course fertilization and maintenance practices. A regular monitoring program would provide an understanding of any degradation of water quality that the golf course may produce in the Upper Truckee River and guide golf course management and water quality protection actions.

The department is also concerned that the stream flow in the Upper Truckee River be maintained at a level necessary to protect aquatic organisms and wildlife. This is particularly critical at the end of the dry summer period when aquifers and snow melt have diminished. During this period, the pumping of water for the golf course, either from the river or from shallow aquifers or tributaries associated with it, can seriously threaten the river's ecosystem.

Policy: The department shall protect the quality, quantity, and ecological integrity of ground and surface waters of the Upper Truckee River watershed within the unit. Unnatural nutrient and sediment loading shall not be permitted. Department-controlled activities shall be so designed and implemented that water quality shall not be threatened by such activities.

The department shall work with the California Department of Fish and Game to establish and maintain minimum stream flow requirements for the Upper Truckee River. No pumping or diversion of water from the river or its ground water aquifers shall take place within the unit when the river is at or below the established minimum flow levels.

An ongoing Water Quality Monitoring Program shall be developed and implemented at Lake Valley SRA. The program shall include sampling of runoff and groundwater at least annually at points immediately upstream, adjacent to, and immediately downstream of the golf course. Sampling shall quantitatively assess levels of nitrogen, phosphorus, bacteria, and algal growth.

The specifics of the monitoring program shall be developed in cooperation with the Lahontan Regional Water Quality Control Board and the Tahoe Regional Planning Agency. The department shall meet annually with these agencies to review the results of the monitoring program and to discuss any necessary management actions.

Land Activities in the Upper Truckee River Watershed

Land activities both within and outside Lake Valley SRA have affected the Upper Truckee River and its tributaries. These activities, past and present, include logging, construction, mining, grazing, and recreation. Knowledge of these disturbances and the appropriate response and/or mitigation to them is essential to the protection of State Park System values.

Policy: So that State Park System values are protected, the department shall actively participate in local land use issues that involve lands upstream from Lake Valley SRA, and that may have deleterious effects on hydrologic resources. Issues that the department shall respond to shall include, but not be limited to, timber harvesting, mining, grazing, road and building construction, and water diversion and regulation.

General Vegetation Management

It is the policy of the department to preserve and perpetuate representative examples of natural plant communities common to a unit and the region (Policy No. 7; Res. Mgmt. Directives, 1831.1). The natural plant communities at Lake Valley SRA have been impacted by urbanization, road construction, golf course development, fire suppression, and the introduction of exotic species. This has resulted in the reduction in number and distribution of native flora.

Policy: The department shall manage the plant communities in undeveloped areas and along the Upper Truckee River toward plant communities that would result from normal successional trends, which would prevail in the presence of all natural processes normal to the region. In areas previously modified, ongoing efforts shall be made to encourage a restoration of the native vegetation toward a natural condition. Native indigenous vegetation restoration and management are specified in policies of this element on stream course management and bank stabilization, and on golf course management for ecological resources.

Rare and Endangered Plants

Rare and endangered plants can be inadvertently destroyed by facility development, maintenance programs, visitor use, or other activities, especially when the exact population locations, habitat requirements, and tolerances are not known. No rare or endangered plants are known to occur in Lake Valley SRA.

Policy: Systematic surveys for rare and endangered plants shall be made prior to any development in Lake Valley SRA. If any rare or endangered species are found, all populations shall be mapped and management plans developed for their protection and perpetuation.

Fire Prevention and Suppression

Wildfire can be a threat to natural resources, facilities, and human life and property. For these reasons, the department requires that a Wildfire Management Plan be developed for every State Park System unit that experiences wildland fires.

Because conventional fire control facilities and procedures can result in more serious and long-lasting impacts on unit resources than the wildfire itself, the development of special standards and procedures applicable to the unit environment is important.

Undesirable effects of suppression activities can be avoided by using a planned program of modified fire suppression. This approach divides the unit into compartments bordered by existing natural and artificial firebreaks. In the event of a wildfire, suppression activities are concentrated along the borders of a compartment, thereby minimizing resource damage. The program would also identify resource sensitivities that should be considered if additional suppression activities are required. Wildfire contingency planning in this manner will greatly reduce the likelihood of damage from suppression activities while providing for the necessary protection of unit resources and public safety.

> Policy: The department shall work with the U.S. Forest Service through the California Department of Forestry, the Lake Valley Fire District, and other appropriate agencies to implement a Wildfire Management Plan at Lake Valley State Recreation Area. This plan shall address all aspects of wildfire planning, including prevention, presuppression, and suppression. The plan shall identify modified fire suppression methods designed to preserve sensitive unit resources while protecting human lives and property.

Landscaping

The native forests, meadows, and riparian vegetation provide a particularly attractive natural setting for the golf course at Lake Valley SRA. Nonnative ornamental trees and shrubs detract from this esthetic quality. Also, nonnative vegetation frequently has lower habitat value for native wildlife and can become naturalized and displace native plant species.

> Policy: Landscaping in developed areas should consist of species indigenous to the area. If nonnative species are used, they shall be esthetically harmonious with native vegetation and incapable of naturalizing in the wild.

General Wildlife Management

Animal life is an important part of natural ecosystems and landscaped areas, and adds interest and variety to the visitor experience. Protection and perpetuation of wildlife populations is a major management objective at Lake Valley SRA.

Adjacent to Lake Valley SRA are several residential subdivisions with homes bordering on the unit. Dogs consistently run loose through the unit, and some have been observed chasing ducks near the Upper Truckee River. Both stray dogs and cats can and most likely already have adversely affected wildlife populations in the unit.

Policy: Altered natural habitats that are planned to remain undeveloped shall be restored as nearly as possible to conditions that would exist had natural ecological processes not been disrupted. Whether or not restoration of natural conditions is planned or possible, it shall be the policy of the department to avoid significant imbalances caused by human influences on the natural wildlife populations. If it is necessary to regulate animal populations, the methods used shall be based on sound principles of ecosystem management, shall be consistent with the general policies of the department, and shall avoid disturbance to other natural values of the state recreation area.

Where possible, the department shall act to eliminate adverse impacts on wildlife.

Aquatic Habitat Enhancement

The Upper Truckee River and Angora Creek have the potential for providing fine aquatic life habitat. There are several species of introduced game fish, primarily rainbow trout and brown trout, in addition to several native species that inhabit the waters of this unit. The Upper Truckee River has been cited as providing the primary spawning and rearing habitat for lake-run brown trout. The quality of the aquatic life habitat, however, has suffered due to upstream land and water uses within the basin and channelization and erosion control projects within the unit. Habitat enhancement methods are available and can be implemented.

Policy: An aquatic life habitat enhancement program shall be implemented for the portions of the Upper Truckee River and Angora Creek within Lake Valley SRA. This program shall include a survey and identification of areas suitable for aquatic life enhancement, the development of restoration and enhancement measures, and monitoring to evaluate the results of the program.

Plans and activities pertaining to aquatic life and its habitat in the unit shall be carried out in cooperation with the appropriate governmental agencies, in particular the California Department of Fish and Game and the U.S. Forest Service.

Protection of Wetland Habitat

Wetlands, such as the wet meadows surrounding the lower reaches of Angora Creek and the Upper Truckee River within the unit, are of primary value as natural and sensitive habitat. Some adverse impacts, such as livestock grazing, have degraded the meadows.

Policy: The Lake Valley SRA wetland habitat shall be managed for its long-term preservation and enhancement as a natural ecosystem. Activities that impact or degrade the meadows, or are not of a scientific, educational, or interpretive value, shall be prohibited.

Where feasible and desirable, the department shall restore degraded wetlands to a natural condition, including areas used for other purposes, where such restoration will not interfere with the unit's intended use and purpose.

Wildlife Requiring Special Management Consideration

The state- and federal-listed endangered bald eagle and the state-listed Sierra Nevada red fox and wolverine may occur at Lake Valley SRA. At least 12 other species that may occur at the unit are listed by the state or federal government as being sensitive and of special concern due to their reduced breeding status statewide.

Habitat preservation is a critical factor in the well being of all these animals.

Policy: Specific management programs shall be developed when appropriate for animal species that are threatened, endangered, or sensitive and of special concern. Necessary and suitable habitat, where it exists, shall be perpetuated. Programs or projects undertaken at Lake Valley SRA shall be planned and designed so that animal life requiring special management consideration will not be adversely affected. Resource management actions will focus on natural processes in recognition that natural processes are mutually beneficial to all important resources.

Management of Canada Geese

Canada geese occupy the golf course in significant concentrations during late summer and fall, and have disrupted course play and maintenance. Methods to discourage geese from landing and to frighten them away include "cracker shells" (periodic explosions), electronic sonic signals, and dogs trained to chase them. None of the methods currently known and practiced have been effective in offering relief, except very temporarily. Capture and distant relocation is another method that has been employed, but it is very expensive.

Loss of historic waterfowl habitat in the Lake Tahoe basin is one of the reasons why Canada geese are now using the turfed areas at the golf course. Also, closely clipped turf grasses are a natural attraction to these birds.

Policy: The department shall consult with the California Department of Fish and Game, the U.S. Fish and Wildlife Service, the U.S. Department of Agriculture Animal Damage Control Office, and the Tahoe Regional Planning Agency in addressing the Canada goose issue on the golf course at Lake Valley SRA. No management action shall be implemented without the approval of these regulatory agencies.

Management of Beaver

The beaver found in the Sierra Nevada are not native to this region. They were introduced from 1945 to 1955 by the California Department of Fish and Game. The beaver's preferred forage is aspen and willow; however, they fell and eat other trees including conifers. At Lake Valley SRA, they have downed many lodgepole pine and other trees along the banks of the Upper Truckee River.

Beavers construct dams across streams from trees and brush they remove from banks, which changes the dynamic processes of water and sediment flow, obstructs the downstream movement of debris, and contributes to severe bank erosion. Beavers also burrow into streambanks, further weakening them and disrupting vegetative cover. Loss of this near-stream habitat may be adversely affecting fish and wildlife populations that depend on streamflows and riparian growth.

Policy: In cooperation with the California Department of Fish and Game, the department shall prepare a beaver management plan to extirpate this species from the portions of the Upper Truckee River and Angora Creek within Lake Valley SRA.

Cultural Resources

Lake Valley State Recreation Area has been surveyed for cultural resources, and no prehistoric or historic sites were found. Earth-moving and grading required in golf course construction potentially could have buried Native American resources.

Policy: Any major landscape modifications to the golf course will require monitoring by an archeologist. If resources are located, mitigation measures must be determined to minimize the negative impact.

Esthetic Resources

Natural Settings

The esthetic value of Lake Valley SRA is derived from its surrounding natural beauty.

Policy: The department shall provide a setting within Lake Valley SRA that minimizes human influence as much as possible without obstructing the unit's purpose.

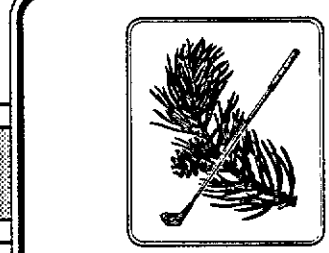
Recreation Resources

Recreational Use

Recreation at Lake Valley SRA includes active and passive forms, and occurs throughout the year. Currently, prominent recreation includes golfing and fishing during warmer months, and snowmobiling and Nordic skiing when snow is sufficiently deep.

Snowmobiling and skiing are compatible activities where they are currently permitted in the unit, but would be incompatible in riparian and wetland habitats and on frozen water bodies. The use of ammonia nitrate or other chemical compounds to groom or modify snow conditions is inappropriate.

Policy: Recreation allowed at Lake Valley SRA shall take into account and conform to natural and cultural resource values, and the effect such recreation would have on public use and resources of the contiguous Washoe Meadows State Park shall be considered.



INTERPRETIVE ELEMENT

INTERPRETIVE ELEMENT

Interpretation aims at enhancing public enjoyment and benefit in the State Park System through increasing understanding of significant natural and cultural resources, and encouraging appreciation of their value. It is founded on the premise that knowledge deepens the park experience, providing lasting benefits not only to individuals but to society in general. The Interpretive Element works toward this goal by identifying park themes and a variety of facilities and programs appropriate for their presentation.

Interpretive Considerations

Environmental Influences

1. Accessibility:

   Lake Valley State Recreation Area draws on a large body of potential users and visitors. There is direct access to the unit from heavily trafficked Highway 50. Close to the heart of one of California's most well-known tourist areas, there are many overnight accommodations available for visitors near the unit. The existing paved parking lot is adequate for the present visitor load, except during peak weekend use.

   A small area and relatively flat terrain make the unit very accessible to visitors. There is access to adjacent Washoe Meadows State Park.

2. Natural resources of the unit and its environs:

   The mountain peaks of the Sierra bring great scenic beauty within view from the unit. The Upper Truckee River and its tributary, Angora Creek, have potential for interpretation, especially if rechanneling of Angora Creek is achieved as proposed in connection with additional land acquisition. The need for a protection zone running along the Upper Truckee River banks may sharply restrict interpretive development.

   Washoe Meadows State Park, immediately adjacent to Lake Valley, has excellent potential for recreational and interpretive use, particularly with respect to natural values. Currently, ski trails that begin at the Lake Valley parking lot pass through to Washoe Meadows State Park and other adjacent Forest Service land. The relatively greater suitability of Washoe Meadows for natural interpretation, nature study, hiking, and similar uses, as well as its relative distance from the golf course and highway, are considered in planning for Lake Valley State Recreation Area.

   The sedge meadow areas along Highway 50, north and south of the golf course, have shows of such spring wildflowers as whorled penstemon, knotweed, monkeyflowers, and potentilla. These meadows attract birds, creating some potential for birdwatching activities. However, concern with soil compaction in meadow areas may restrict some interpretive activities.

3. Apparent absence of cultural resources:

The general lack of both Native American sites and historic sites of the Euro-American occupation, generally attributed to ground disturbance caused by golf course construction, leaves little opportunity for site-specific cultural interpretation.

4. Weather and seasonal variations:

Both human and animal use is subject to sharp seasonal differences. Golfing in summer alternates annually with snow sports (skiing and snowmobiles) in winter, bringing different visitor populations and the need for seasonally related interpretation. Much of the unit's animal population remains in the vicinity during the spring and summer, and in the colder months either departs, becomes dormant, or sharply reduces activity.

5. Atmospheric conditions:

There is a potential for severe air pollution in the Lake Tahoe basin, with reduced visibility of scenery and eye irritation. This condition is most severe in summer and fall, due to the stable atmosphere and low inversion level, and may impact the visitors' experience.

6. Golf course:

The golf course is the most important human impact to be considered. Occupying most of the unit, its construction has changed the topography, vegetation patterns, and animal life, and may have destroyed historical and prehistorical materials. Because of the danger of misdirected golf balls, and the need to keep the course open and free of wandering visitors, golf course activity severely limits alternate uses such as picnicking, birdwatching, nature walks, painting, and photography.

7. Modern development adjacent to unit boundaries:

Highway 50 and the Lake Tahoe airport generate noise and visual intrusions affecting almost all areas potentially useful for interpretation. Additionally, the viewshed south of the unit encompasses residential development, and visitors at most places inside the unit will be cognizant of power lines, sewer lines, and other evidences of modern life. These features compromise perceptions by visitors of the natural qualities of the unit.

Visitors and Their Needs and Expectations

During the spring through fall, virtually all unit visitors come to play golf. Undoubtedly associated with this activity is talking business with associates, purchasing of equipment at the pro shop, and the conviviality of the bar operated in the clubhouse. The 18-hole championship course opens in mid-April and closes in November, unless weather conditions dictate otherwise. An average of 250 people play the course daily, with weekend numbers reaching 350 to 400. Additionally, the local high school and community college use the golf course for golf instruction.

After the golf course closes for the season, Lake Valley is currently available for winter sports from about the beginning of December through March. The current concessionaire has estimated a realistic potential for 100 patrons daily for Nordic skiing and 200 daily visitors for snowmobiling. Nordic skiing fees are $40 for a season pass or $6.00 for a daily pass. Snowmobile rentals currently run $20 per half hour for one person, or $30 per half hour for two people. As in the case of golfing, the fees restrict the socioeconomic spectrum of visitors.

Snowmobile use attracts a much younger crowd than does golf, with many children attending as part of family groups. The concessionaire estimates that up to 95 percent of snowmobilers arrive in family groups. A higher proportion of golfers are local area residents than are the snowmobile renters, who tend to be winter tourists. Additionally, the local high school and community college use the Nordic skiing concession for skiing lessons.

Were additional property acquisition to broaden the available use of the unit, new visitors with different needs might be attracted to it, especially in view of the large general touring population at the Lake Tahoe area. Such new uses would include picnicking, nature study, photography and art, resting from highway driving in an undeveloped setting, and birdwatching. These uses, along with the present use patterns, would provide new interpretive needs.

These would include learning more about the surrounding scenery, the Upper Truckee River, seasonal changes in vegetation and animal life, the activities for which they came to the unit, and the environmental preservation concerns that created the unit and prompted specific management policies.

The long-term planning for interpretation should give significant attention to such nonrecreational subjects, and aim at meeting the needs of a wider range of visitors.

Interpretive Period

A flow of history framework will be adopted to interpret the stories of golf and snow recreation (use of skis and sleds). Broadly, this will cover the period from about 1 AD to the present, with an emphasis on the period of technological changes in these activities, from the early 19th century to the present. Two aims are served by interpreting aspects of golfing and snow recreation history. First, the subjects relate directly to the interests of present visitors and to their primary purposes for coming to Lake Valley. Secondly, and more broadly, these interpretive subjects direct attention to the ecologically significant aspects of the Lake Tahoe basin situation.

For interpreting the social, economic, and ecological aspects of the maintenance of the integrity of the Lake Tahoe basin environment, the interpretive period will extend from 1850 to the present. Within the period, interpretation will emphasize the recent past (1970s-1980s) to examine the origins of Lake Valley State Recreation Area and the management concerns of the State Park System.

Interpretive Themes

Subject: MODERN RECREATION IN A TECHNOLOGICAL AGE

Statement: The history of the principal recreational activities at Lake Valley teaches that technology best improves our lives when it is a servant rather than a master.

Expanded Theme:

Lake Valley presents few of the usual opportunities for interpreting the social or natural environments found in other State Park System units. However, its unique situation provides a setting for presenting to visitors the concept of the interrelationship of recreational activities and the ecological necessity for preserving the natural environment. By initially relating to visitors' predominant interests at Lake Valley State Recreation Area, interpretation may help sensitize them to the needs of the natural environment. Technology may play helpful or harmful roles in our lives. This theme will describe both roles technology has played in relationship to the Lake Tahoe area.

1. TECHNOLOGY AND GOLF

The modern game of golf depends on the technology of ball-making. In its early years in Scotland and then England, balls called "featheries" were handmade by skilled craftsmen. Expensive and delicate, this technology prevented widespread participation in the activity by the general population.

In the mid-19th century, at a time the Industrial Revolution was well underway, an expanded world commerce and technological advances in Great Britain led to the development of the gutta percha ball. Cheaper, more durable, and livelier in play than the feathery, it supplanted the handmade ball and led to increased participation in the sport.

By the opening of the 20th century, the gutta percha ball was itself replaced by the Haskell ball. Constructed with complicated factory machines from a solid rubber core, tension-wound rubber strips, and machine-applied cover, the Haskell ball opened the modern era of golf at a time when the sport was in a period of expansion in the United States. Golf became a game available to millions for the first time.

Though incremental technological improvements have been made to the golf ball, it has remained fundamentally unchanged since the turn of the century. This occurred not because of the stultification of technology, but because it has been generally recognized that continued improvements in the liveliness of the golf ball would not improve the pleasure of golf and in fact would diminish it.

In a small but relevant sense, the history of the golf ball teaches that technology best improves our lives when it is a servant rather than a master. No dedicated golfer wishes the adoption of a ball that sails for miles or that compensates for lack of skill to the extent the human

factor in the game is minimized. Technology has been applied to golf in careful measured ways to assure it serves a positive function. In other words, in the example of golf, technology has been employed with care and discrimination as a servant.

2. TECHNOLOGY AND WINTER SPORTS

Cross-country skiing and snowmobiling represent the application of technology to the need for travel across snow-covered terrain. Both have been shaped by modern technology. Advances in ski design and the manufacturing of motorized vehicles for snow travel are contemporary influences. The use of specialized equipment for facilitating traveling in snow conditions is ancient, however. This theme will look at the history of skiing, sledding vehicles, and snowshoes.

A sport in the Sierra today, skiing and the use of similar equipment for traveling across snow is ancient, going back many thousands of years both in Asia and Europe. The first advance probably was snowshoes or snowshoe boards, developed in Central Asia and spreading from there. The earliest skis were technological refinements of the snowshoe board. As the use of skis spread, different sizes and shapes came into use to meet special needs. The use of poles evolved over time. Early evidence suggests sometimes a single pole or none at all was employed.

North American Indians used snowshoes. Specifically, in the area of the unit, the Washoe manufactured and used them for winter hunting and mobility. During the Gold Rush era, skis were used for snow transportation and to deliver mail. Especially well known in California lore is John A. "Snow Shoe" Thompson, who maintained a mail route between Carson Valley and Placerville in the 1850s.

By learning more about the evolution and use of skis and related equipment, winter visitors will become more aware of the role of technology in providing opportunities to enjoy winter sports at Lake Valley State Recreation Area.

3. TECHNOLOGY AND THE TAHOE BASIN'S FRAGILE GRANDEUR

The use of technology to improve our lives was illustrated in the sub-themes dealing with golf and winter sports. A key concern of the interpretive effort must be to extend that understanding to the relationship between technology and the threats now posed to the natural qualities of the surrounding environment. Visitors should also be made aware of other impacts of human technological powers that may have less long-term beneficial results. At Lake Valley, both familiarizing visitors with the surrounding vistas and resources, and pointing out the need to harness technology to aid rather than harm these resources, are appropriate interpretive goals.

Interpretation should identify the landmark mountain peaks visible from the unit, presenting basic information about them and other natural features such as the Upper Truckee River. The role of the Upper Truckee River in the health of Lake Tahoe should be stressed. Additional information should be included on birds and waterfowl (whether or not

apparently present in the unit at any given season), the several plant and biotic communities, particularly the meadow areas, and the use of these resources by Native Americans. This information will help orient visitors to the area's resources.

The most fundamental goal of interpretation is to make visitors aware that as massive as the grandeur appears, the natural environment is no match for our machines and technology. Visitors should be shown the sense in which this is a fragile grandeur. The effects of commercial and residential development on the water and air quality of the Lake Tahoe area should be noted. Particular emphasis should be given to the Upper Truckee River and the steps the department intends to take to preserve its integrity.

Though the golf course has a lesser potential impact on the regional environment than residential development, it too presents potential environmental problems. Visitors should be aware of the management policies that seek to maintain the golf course by means consistent with the preservation of environmental quality.

The objectives of the management policies for the golf course require establishing ecologically sound methods of watering, fertilizing, disposal of grass clippings, and similar matters of ecological concern.

The desired results of interpreting the ecological story of the unit and the surrounding area will be an increased awareness and appreciation on the part of visitors in all seasons of the role of technology in recreation and the maintenance of a healthy natural environment. By using the history of golf, along with the management policies of the Department of Parks and Recreation, as examples directly relevant to Lake Valley State Recreation Area, visitors will be familiarized with an object lesson in how technology can be harnessed to best serve human needs.

Proposed Interpretation

Facilities

The unit currently contains no interpretive facilities. The current wintertime concessionaire has produced some removable interpretive panels for use along the ski trails. These provide basic orientation to the natural features.

Room should be provided in the existing clubhouse or any replacement structure for both permanent and rotating interpretive panels. The permanent panels should deal with the subject of the fragile grandeur of the Tahoe environment and management measures the department and the concessionaire undertake to assure its integrity. The remaining spaces should rotate golf-related and winter sports panels according to the season.

Removable, weather-resistant interpretive panels should be installed at selected points along ski trails, including the trailhead at the parking lot. These panels should include information on resident and migratory animals, dormant animals, physical and seasonal differences between plant species, and animal tracks.

Should contemplated acquisitions add property north of the clubhouse, the following interpretive facilities should be added:

Interpretive panels at the family picnic area, dealing with the natural history of the Upper Truckee River, Angora Creek, and meadow flora and fauna.

A self-guided nature trail leading from the vicinity of the picnic area towards the Upper Truckee River and the adjacent meadows.

A dispenser for low-cost brochures about birds of the area, for use along the self-guided nature trail.

Visitor Activities

There are now no organized interpretive services at the unit, except for safety instructions provided to snowmobile renters by the concessionaire.

Few, if any, interpretive services or programs would be appropriate in this setting. One exception might be a modified living history golf demonstration. Because the history of golf and its technology is to be interpreted, interested volunteers should be encouraged to periodically put on demonstrations of golf as it was played when the game was first introduced in the United States, featuring period dress and golfing equipment. The local community college might be enlisted in developing such a program.

Interpretive Concessions

The present golf course concessionaire contracts with an independent contractor for the running of the skiing and snowmobile operations. Assuming this situation will continue, the golf course concessionaire should be required to mount, display, and maintain any interpretive panels in the clubhouse. The concessionaire should be responsible for maintaining, storing, and rotating the panels at the beginning and end of the golfing season so that appropriate panels are displayed throughout the year.

The concessionaire should also be required to produce and have available for distribution a pamphlet or brochure that summarizes the story of how Lake Valley State Recreation Area became a State Park System unit and the reasons why the department has embarked on a management program designed to protect and preserve the Lake Tahoe basin environment.

The concessionaire's pro shop should be required to carry a selection of published materials relating to the history of golf.

The subconcessionaire running the winter sports program should additionally be responsible for maintaining and installing orientation and informational interpretive markers or panels along the trails used by Nordic skiers.

If the subconcessionaire maintains a sales counter or shop during the winter season, books relating to the history of skis, sleds, and similar snow travel technologies should be available for purchase.

Collections

No interpretive collections now exist at Lake Valley State Recreation Area. The respective seasonal exhibits in the clubhouse would be enhanced by the display of antique golf clubs and balls, typical Washoe snowshoes, and antique ice skates.

Interpretive Priorities

- Produce a brochure that summarizes the story of how Lake Valley State Recreation Area became a State Park System unit and the reasons why the department has embarked on a management program designed to protect and preserve the Lake Tahoe basin environment.

- Install displays in the golf clubhouse interpreting the story of Lake Valley State Recreation Area and its relationship to concerns for the ecological health of the Lake Tahoe basin.

- Install displays in the golf clubhouse interpreting the management program instituted by the Department of Parks and Recreation to assure the health and integrity of the environment.

- Install displays in the golf clubhouse interpreting the history of golf and its technologies, as seasonally appropriate.

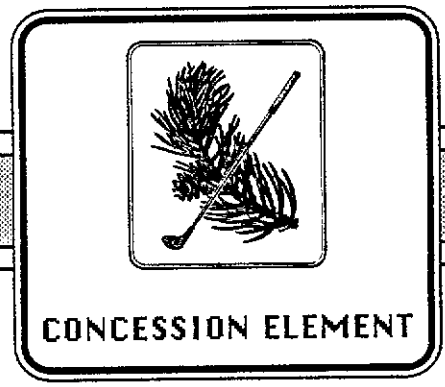
- Install displays in the golf clubhouse interpreting the history and technology of skiing, sledding, and snowmobiling, as seasonally appropriate.

- Acquire additional property north of the golf course to open an area in the vicinity of the Upper Truckee River and Angora Creek to non-golf club use, such as picnicking and nature study.

- Upon additional acquisition of property, develop a self-guided interpretive trail, with the trailhead leading from the vicinity of the picnic area towards the Upper Truckee River and the adjacent meadows. This will encourage a wider appreciation of the unit.

- Produce and dispense low-cost guides for birdwatching and for the self-guided interpretive trail, focusing on the seasonal presence of Canada geese and other birds, and on other animals whose survival is at stake.

- If a volunteer group or other organization shows interest, encourage a living history program through periodic demonstrations of golfing as it was played in the late 19th century.


CONCESSION ELEMENT

CONCESSION ELEMENT

The Concession Element of the general plan consists of an evaluation of existing and potential concession activities, inventory of additional visitor services, and statement of appropriate concession policies and guidelines consistent with the unit's classification.

A Concession Element is a required aspect of general planning for all State Park System units. The Public Resources Code, Section 5080 et seq., describes the manner in which concessions can be operated in the State Park System.

Definition

A concession is defined as authority to permit specific use of State Park System lands and/or facilities for a specified period of time. The intent is to provide the public with goods, services, or facilities that the department cannot provide as conveniently or efficiently, or to permit limited uses of State Park System lands for other purposes compatible with the public interest and consistent with the Public Resources Code.

Purpose

It is the department's policy to enter into concession contracts for the provision of services, products, facilities, programs, and management and/or visitor services that will provide for the enhancement of recreational and educational experiences in concert with visitor safety and convenience. Such concessions should not create added financial burden on the state and, wherever possible, shall reduce costs and/or generate revenues to aid in maintaining and expanding the State Park System. In carrying out this policy, the department must adhere to the provisions of the Public Resources Code that forbid commercial exploitation of resources in units of the State Park System and that limit the kinds of improvements and activities that are allowed in certain types of units.

The following are general statements of concession policies for the State Park System and state recreation areas in particular:

Policy A: Concession developments, programs, and services must be consistent with the purpose(s) for which the unit was established and classified, and be in accordance with the general plan for the unit.

Policy B: Concessions should provide needed and appropriate visitor services at fair and reasonable prices that are competitive with similar businesses outside the State Park System. Entrepreneurs should be allowed an equitable profit and the State Park System should receive an adequate rental return.

Policy C: Concession activities should not duplicate visitor facilities or services that are adequately provided by nearby business communities.

Policy D: Private investors should be encouraged to fund and develop user facilities through appropriate concession contract opportunities.

Policy E: Potential concession services shall be analyzed on a case-by-case basis. Economic feasibility studies for proposed concessions shall be evaluated by the Office of Economic and Fiscal Affairs with input from other departmental divisions.

Policy F: A wider variety, size, or type of concession may be permissible in units classified as state recreation areas or state beaches than in units where the management purpose is primarily historic or natural feature preservation and interpretation.

Policy G: Concessions that relate to the resources of the unit in state recreation areas and state beaches can be enhancements or attractions unto themselves, but such concession attractions are generally incompatible with units in which natural or historical preservation is of primary importance.

Review and selection of appropriate concession activities for state recreation areas should be guided by the following policies:

1. Care shall be taken to insure the compatibility of concession development and use with the surrounding scenic and environmental characteristics.

2. Care shall be taken to balance the objectives of providing optimum recreational opportunities and maintaining high standards of environmental protection.

3. Concession facilities and services should consider:

   a. Recreational needs of the public. (Are services and goods offered by nearby local business?)

   b. Economic feasibility (benefit vs. cost to state).

   c. Planning and development guidelines.

   d. Land use and development plans (including compliance with strict architectural and engineering requirements).

   e. Compatibility with state development (including conformity with other development and the total environment).

   f. Conformity with state and local codes, laws, regulations, and ordinances.

Current Conditions

Concession History

Lake Valley State Recreation Area is occupied primarily by an 18-hole championship golf course currently known as Lake Tahoe Country Club. The property was acquired by the state in 1984 and the golf course and winter recreation area has since been managed by the Department of Parks and Recreation through a concession agreement. A three-year concession contract was put out for public bid and awarded in 1985 with the agreement since extended for one year to March 31, 1989. The extension allows for completion of a general plan for the unit prior to the formulation and bidding of a new concession contract.

Existing Concession Facilities

Concession operation of Lake Valley SRA utilizes all of the land area and improvements located in the unit. Improvements currently used by the concession include:

1. Golf Course: An 18-hole, 6,700-yard championship course including greens, fairways, traps, roughs, tees, cart path, bridges, irrigation system, etc.

2. Driving Range and Instruction Area.

3. Clubhouse: A 20-year old, one-story structure, which houses a pro shop, registration area, bar, restaurant, kitchen, and restroom.

4. Cart Storage Area: Fenced golf cart storage.

5. Maintenance Area: Fenced enclosure with two maintenance structures and equipment storage area.

6. Additional improvements include utilities (electric, water, telephone, and sewer service), paved parking, entry road, and some perimeter fencing.

Current Concession Operations

Operations under concession contract are divided into activity centers as follows:

Golf Course Operations: The golf course and practice range facilities are open to the public daily during the late spring, summer, and early fall months, depending on the onset and retreat of winter snows. Related services include golf course play, golf cart rental, sale and rental of golfing equipment, golf instruction, and restaurant and bar service, including the sale of distilled spirits.

To date, golf course facilities have received heavy use throughout the golfing season with high demand for starting times during weekends and prime golfing hours.

Winter Recreation Area Operations: During the late fall and winter months, recreational use at Lake Valley SRA shifts to winter sports including snowmobiling, ice skating, and Nordic skiing. Concession operations include provision of a snowmobile track, ice skating pond, and groomed cross-country ski trails, which extend into Washoe Meadows State Park and adjacent U.S. Forest Service lands . Related winter recreational services include the sale and rental of ski equipment, snowmobile rental, Nordic ski tours, Nordic ski lessons, and restaurant and bar service, including the sale of distilled spirits.

Winter recreation area operations depend highly on favorable snow and weather conditions, and because of this, demand and popularity have varied accordingly.

Based on the first three years of concession operation at Lake Valley SRA, the project has proven quite successful. The public has been provided a quality golfing opportunity as well as a variety of winter recreational experiences. The golf course facilities have been well maintained and have been improved through a combination of state and concessionaire investment. Financial return to the state has been high compared to other statewide concessions. Environmental and recreational concerns have been addressed and balanced. Finally, public response has been generally positive and supportive of the project and the concession operation.

Proposed Conditions

In concert with the Declaration of Purpose for Lake Valley State Recreation Area and based on three years of concession operation experience, it is recommended that the existing golf course and winter recreational opportunities be continued and that these services be provided through a concession contract. It is also recognized that certain modifications and improvements to the existing facilities are desirable, and that concessionaire funding should be considered as a source for the capital investment needed to implement these improvements. To accomplish this aim, the concession contract term must be of sufficient length to allow for amortization of the required capital investment. Thus, it is recommended that a long-term concession contract commensurate with the level of required investment be awarded in accordance with procedural requirements in the Public Resources Code, Section 5080 et seq. It is also proposed that the name of the facility be changed to Lake Valley Golf Course to better reflect its operational character and its relationship to the state recreation area.

Changes and improvements that may be included as part of future concessions projects include, but are not limited to:

1. Development of a new clubhouse to provide more space, improve and expand facilities, and blend more esthetically with the surrounding environment. A second-story addition might be considered.

2. Expansion of parking facilities to adequately accommodate existing, as well as projected, visitor use.

3. Improvement of maintenance and equipment storage facilities.

4. Modifications to the existing golf course design and landscaping to:

   -- Improve the safety of golf play.

   -- Improve the championship quality of golf play.

   -- Improve the esthetic and natural quality of the landscape.

5. Expansion and improvement of driving range and golf instruction facilities.

6. Completion of the golf cart path system.

7. Replacement of bridges spanning the Upper Truckee River.

8. River course stabilization program.

9. Development of permanent on-course restrooms.

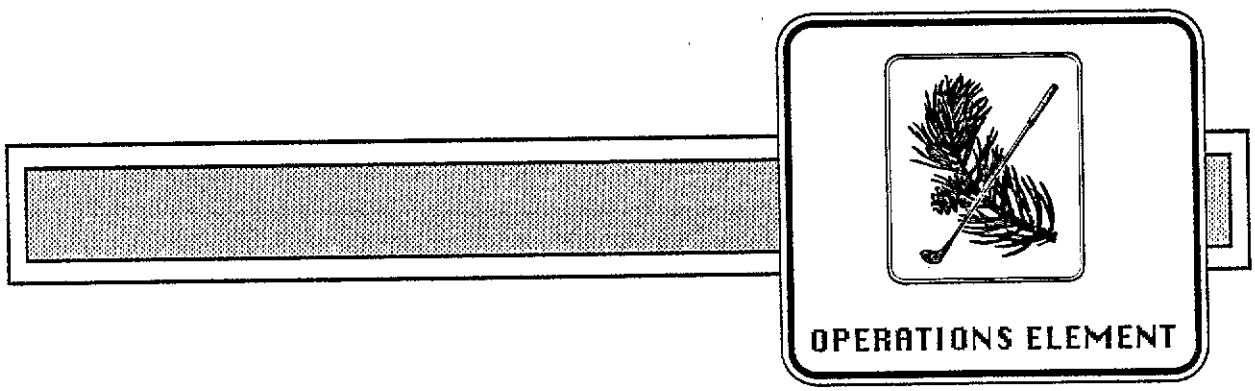
10. Provision of interpretive program requirements outlined in the Interpretive Element.

Operations under future concession agreements would be essentially the same as those provided at present, and would include: operation and maintenance of golf course facilities in accordance with the golf course management plan (see Operations Element), Nordic ski center, snowmobile track, ice skating area and clubhouse with equipment sales, and restaurant and bar service facilities.

Concession operations shall require high standards of maintenance commensurate with the championship caliber of the facility and established State Park System standards. Additionally, resource management issues including fertilizer use, geese management, stream bank erosion, and fisheries/wildlife management shall be addressed as a part of all future concession contracts.

Potential Future Concessions

No additional concessions are recommended for Lake Valley State Recreation Area. However, it is not possible to predict all potential and compatible concession activities at this time. Specific proposals for new concessions shall be studied on a case-by-case basis upon submission to the department. Feasibility analysis shall be conducted by the department's Office of Field Services and Office of Economic and Fiscal Affairs, with compliance review by the Office of Interpretive Services as well as the Planning, Development, and Resource Protection divisions. Final approval for any new concession project will rest with the director of the Department of Parks and Recreation.


OPERATIONS ELEMENT

OPERATIONS ELEMENT

The Operations Element outlines broad operational goals for the unit and objectives for implementing the general plan. It assesses the requirements of the general plan's resource management policies and land use/facilities proposals on the unit's existing operations. It identifies existing or potential operations problems and strategies for solving them.

The operational responsibilities are carried out by personnel at the unit and district level. They are supervised by a district superintendent who reports to a regional director. Figure 1 illustrates this organization.

At the unit level, operations functions are divided into the visitor services, maintenance services, resource management, and administrative services functions.

Existing Operation

Operations Summary

In the 1984-85 fiscal year, the Lake Country Estates project (totalling 777 acres) was acquired. On March 13, 1987, the California State Park and Recreation Commission classified the existing golf course on the property as Lake Valley State Recreation Area, with an approximate acreage of 169. In addition, the commission classified the remaining 608 acres as Washoe Meadows State Park.

In the 1986-87 fiscal year, support staffing was provided to operate and maintain both units. Lake Valley SRA is in the Sierra District, whose headquarters is located in Tahoma about 20 miles to the north.

Special Considerations

At Lake Valley SRA we must perform the difficult task of balancing the recreational uses of the unit with the environmental concerns of operating an intensive recreation area in a stream environment zone.

Jurisdiction

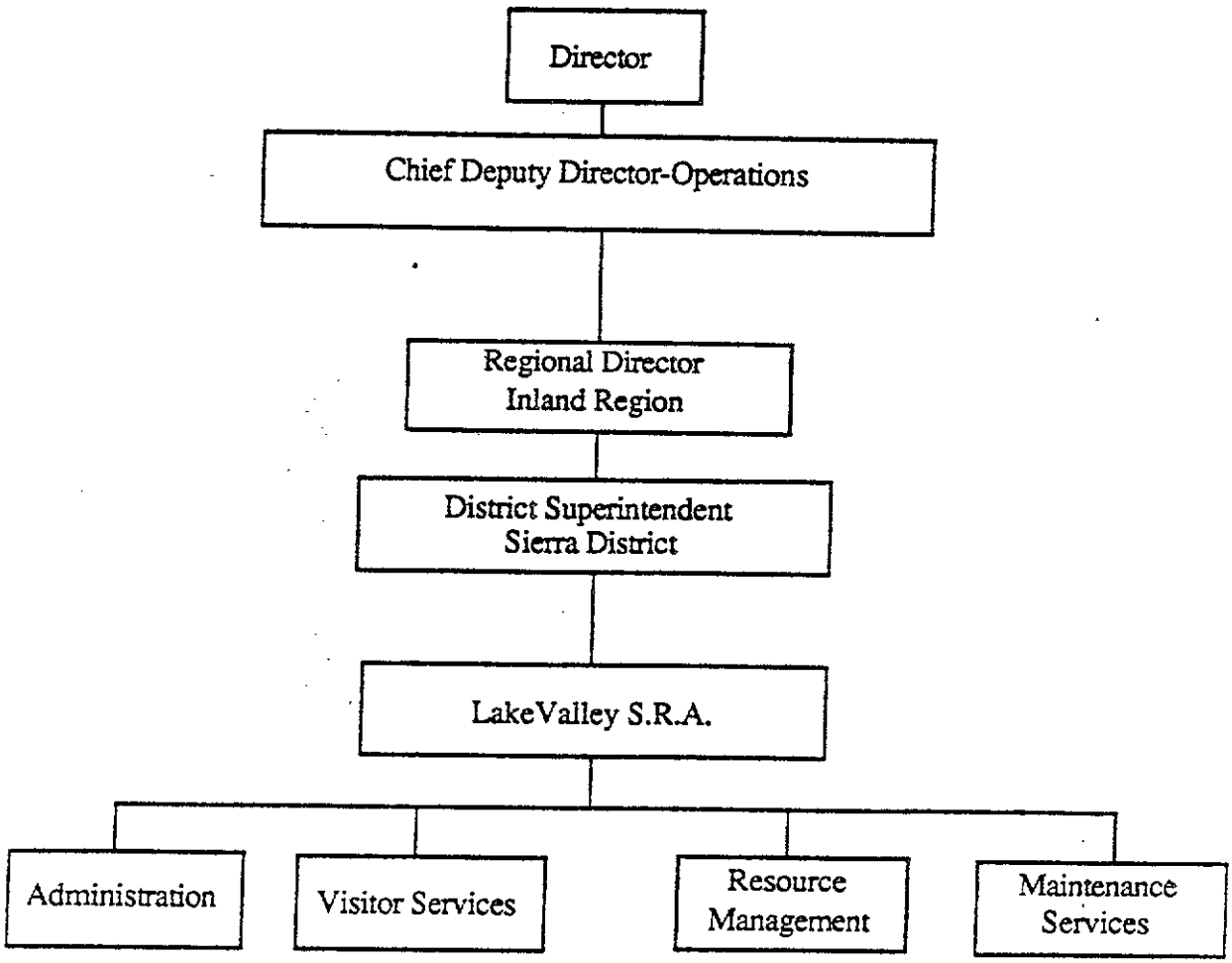
The unit is located in El Dorado County, adjacent to the City of South Lake Tahoe. The district superintendent is required to coordinate activities to meet the concerns and requirements of the city, county, Lahontan Regional Water Quality Control Board, and Tahoe Regional Planning Agency.

Easements and Rights-of-Way

As a complicating factor, the unit is bisected by utility easements and access rights-of-way. The access needs of these utilities must be carefully coordinated and controlled to prevent destruction of resource values and possible disruption of visitor activities. The encroachment of golf course facilities on adjoining property owners must be addressed.

Figure 1

PARK OPERATIONS ORGANIZATIONAL STRUCTURE (1987)



Community Interest

The golf course has both women's and men's clubs that have been strong advocates for the course. The Tahoe Sierra State Parks Association is a private nonprofit association that is interested in the uses of all State Park System units in the Lake Tahoe basin. The El Dorado County Park and Recreation Advisory Committee is also interested in the unit's operation.

Law Enforcement

The requirement for law enforcement at the unit has been minimal. Off-highway vehicle use and animal control are the main problems. El Dorado County sheriff's deputies and state park rangers monitor illegal activities.

Visitor Safety and Emergency Preparation

The safety of the visitors, staff, and facilities of Lake Valley SRA is of prime concern. Outlined below are some of the emergency issues that must be addressed in the unit safety plan:

* Locating and removing visitors from the path of wildfires.
* Protecting park and concession facilities.
* Dealing with aircraft crashes (due to the unit's proximity to the South Tahoe Airport).
* Preparing for and handling visitor accidents and providing medical aid.
* Conducting winter search and rescue operations.
* Monitoring river and runoff conditions and conducting flood emergency operations.

General Plan Implementation

Lake Valley SRA was established to make available to the people for their enjoyment and inspiration the 18-hole golf course and the scenic Upper Truckee River and its environs.

Golf Course Management Plan

The facilities of Lake Valley SRA will continue to be maintained at State Park System standards. A golf course management plan will be established by the district superintendent and made a part of the concession agreement carried out by the concessionaire.

Operational Problems and Solutions

Political Concerns

A community involvement program is needed to keep local jurisdictions and citizens advised of any changes in unit operations and to keep the department informed of local needs.

Volunteerism

The golf course will continue to use volunteers to monitor play on the course. Additional programs will be developed as needs are identified.

Trails

The winter recreation operation will require the use of existing trails and paths on the golf course and existing and future trails on the adjoining Washoe Meadows State Park. Winter activity will require patrol by both concession and state employees.

Resource Management

The balance between recreational uses and resource management is of prime concern to the operations staff. Fertilizer use, geese management, stream bank stabilization, and fisheries and wildlife management must be addressed in all concession agreements (see Concession Element).

Attendance

Attendance will probably remain at approximately 40,000 to 50,000 visitors per year. This estimate is based on current use patterns, seasonal weather fluctuations, and anticipated acquisition and development.

LAND USE ELEMENT

LAND USE ELEMENT

The Department of Parks and Recreation has the dual mission of protecting and preserving the resources of the State Park System and of providing recreation opportunities and facilities for the public. The establishment and classification of this unit as a state recreation area recognizes the significant recreation resources of the site while requiring the preservation and enhancement of the surrounding natural resources. These resources present quality recreational and interpretive opportunities for the public's enjoyment of the unit.

The Land Use Element determines the "best use" of the land at Lake Valley State Recreation Area for providing these opportunities consistent with the programs and policies identified in the Resource Element for resource protection and perpetuation.

A land use plan defines the pattern for the fabric of human activity in a given area. It establishes the character of a place by determining what happens, where it happens, and to what degree it happens. It defines routes of travel and use areas, as well as nonuse areas to be left free from human change or activity. It controls use and development and arranges park activities and facilities so visitors may have the opportunity to enjoy the recreational, interpretive, and spiritual experiences the park has to offer.

During the course of its development, the land use plan takes into consideration the resource, activity, and facility needs identified by the various general plan elements. How can land uses be designated so as to protect and enhance resource values? How and where can activities and facilities be accommodated?

The Land Use Element considers desirable and necessary land uses - undeveloped and developed - and determines what uses are appropriate and where they should be placed on the site.

Adjacent Land Uses

The state recreation area is bounded by Washoe Meadows State Park on the west; unimproved forest and meadow land, Sawmill Road, and three improved residential lots on the north; State Highway 50, Arapahoe Street, eight unimproved lots, and one improved residential lot on the east; and Country Club Drive, six unimproved lots, 10 improved residential lots, and unimproved forest and meadow land on the south.

Existing Land Uses

There are five land use zones within the existing state recreation area boundary (see Maps 3 and 4). The zones are as follows:

OPEN SPACE/River-Stream

The water surface and adjacent banks of the Upper Truckee River and Angora creek.

OPEN SPACE/Undeveloped

All the undeveloped area around the edge of the golf course, much of which contains naturally vegetated habitat.

WETLANDS/Ponds-Drains

The existing golf course ponds, the sediment basin near the parking lot, and the drain swale from the subdivision on the south to the river.

GOLF COURSE/Developed-Undeveloped

Tees, greens, bunkers, fairways, roughs, driving range, and waste areas, which were all disturbed at the time of golf course construction.

ENTRY-PARKING-CLUBHOUSE-MAINTENANCE

The entry road, formal and overflow parking areas, pedestrian and golf cart circulation areas, clubhouse and golf cart storage, and maintenance area.

Table 3 shows that approximately 41.5% of the unit is composed of open space and wetlands, while approximately 58.5% is disturbed terrain (the golf course and associated facilities).

TABLE 3

Existing Land Uses

Zone	Acres	% of Total
OPEN SPACE/River-Stream	11.54	6.3
OPEN SPACE/Undeveloped	55.67	30.7
WETLANDS/Ponds-Drains	8.14	4.5
GOLF COURSE/Developed-Undeveloped	102.35	56.4
ENTRY-PARKING-CLUBHOUSE-MAINTENANCE	3.73	2.1
Current Ownership	181.43	100.0

Proposed Land Uses

Seven proposed land use zones have been carefully formulated to accommodate natural resource needs, recreational opportunities, and operational requirements (see Maps 5 and 6). The proposed zones are as follows:

OPEN SPACE/Stream Management Sensitivity Zone

This zone includes lands formerly designated as Open Space/River-Stream, Open Space/Undeveloped, and Golf Course/Developed-Undeveloped, plus proposed acquisitions. The area on either side of both the stream and river (up to 200 feet from the centerline) is designated as an area needing special management actions.

OPEN SPACE/Undeveloped

Lands formerly designated as Open Space/Undeveloped, plus proposed acquisitions.

OPEN SPACE/Rehabilitated

Lands formerly designated as Open Space/Undeveloped and Golf Course/Developed-Undeveloped, plus proposed acquisitions. The rehabilitation of these areas may include exotic plant removal, regrading to natural contours, cart path and service road removal or relocation, and plantings of native grasses, shrubs, and trees.

WETLANDS/Ponds-Drains

Lands formerly designated as Wetlands/Ponds-Drains, Open Space/Undeveloped, and Golf Course/Developed-Undeveloped, plus proposed acquisitions. Expansion of this zone's area is being proposed to improve aquifer recharge capabilities, sediment entrapment, and wildlife habitat.

GOLF COURSE/Developed

This zone has been reduced in size by changing the "undeveloped" portion to other open space designations and returning the land to a more natural condition.

DAY-USE/Developed

This zone has been designated within a disturbed portion of the Open Space/Undeveloped zone to accommodate additional day-use facility opportunities.

ENTRY-PARKING-CLUBHOUSE-MAINTENANCE

There is no change in this zone's area from the existing condition.

Table 4 shows that the resulting pattern has increased the area devoted to natural open space from 41.5% of the existing site to 63.2% of the proposed boundary area.

TABLE 4

Proposed Land Uses

Zone	Acres	% of Total
OPEN SPACE/Stream Management Sensitivity Zone	70.46	28.3
OPEN SPACE/Undeveloped	37.79	15.2
OPEN SPACE/Rehabilitated	32.44	13.1
WETLANDS/Ponds-Drains	16.42	6.6
GOLF COURSE/Developed	86.42	34.8
DAY-USE/Developed	1.28	.5
ENTRY-PARKING-CLUBHOUSE-MAINTENANCE	3.73	1.5
Potential Ownership	248.54	100.0

MAP 3

DRAWING NO. 23870

LAKE VALLEY STATE RECREATION AREA

EXISTING NATURAL ZONES

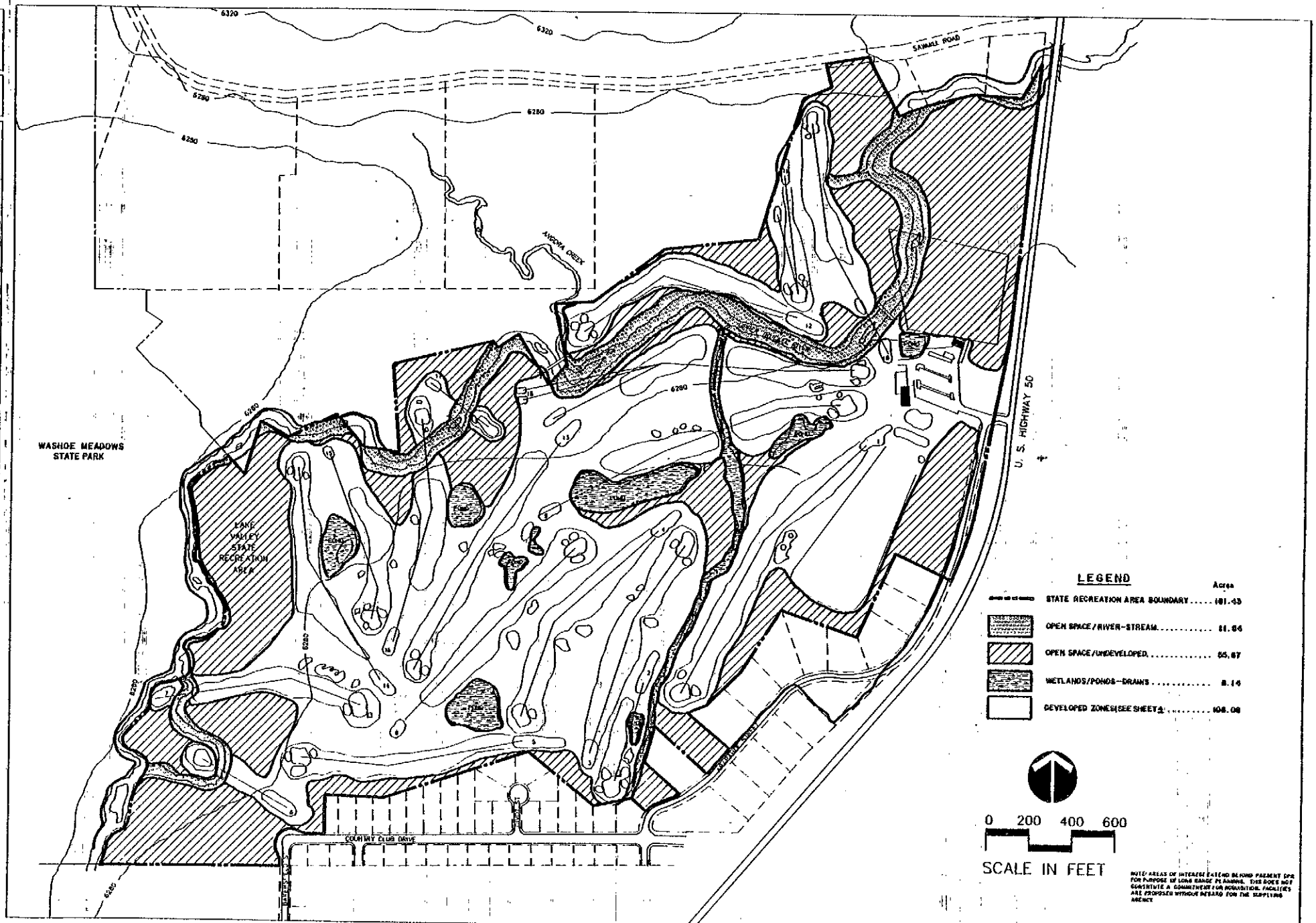
GENERAL PLAN—LAND USE ELEMENT

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

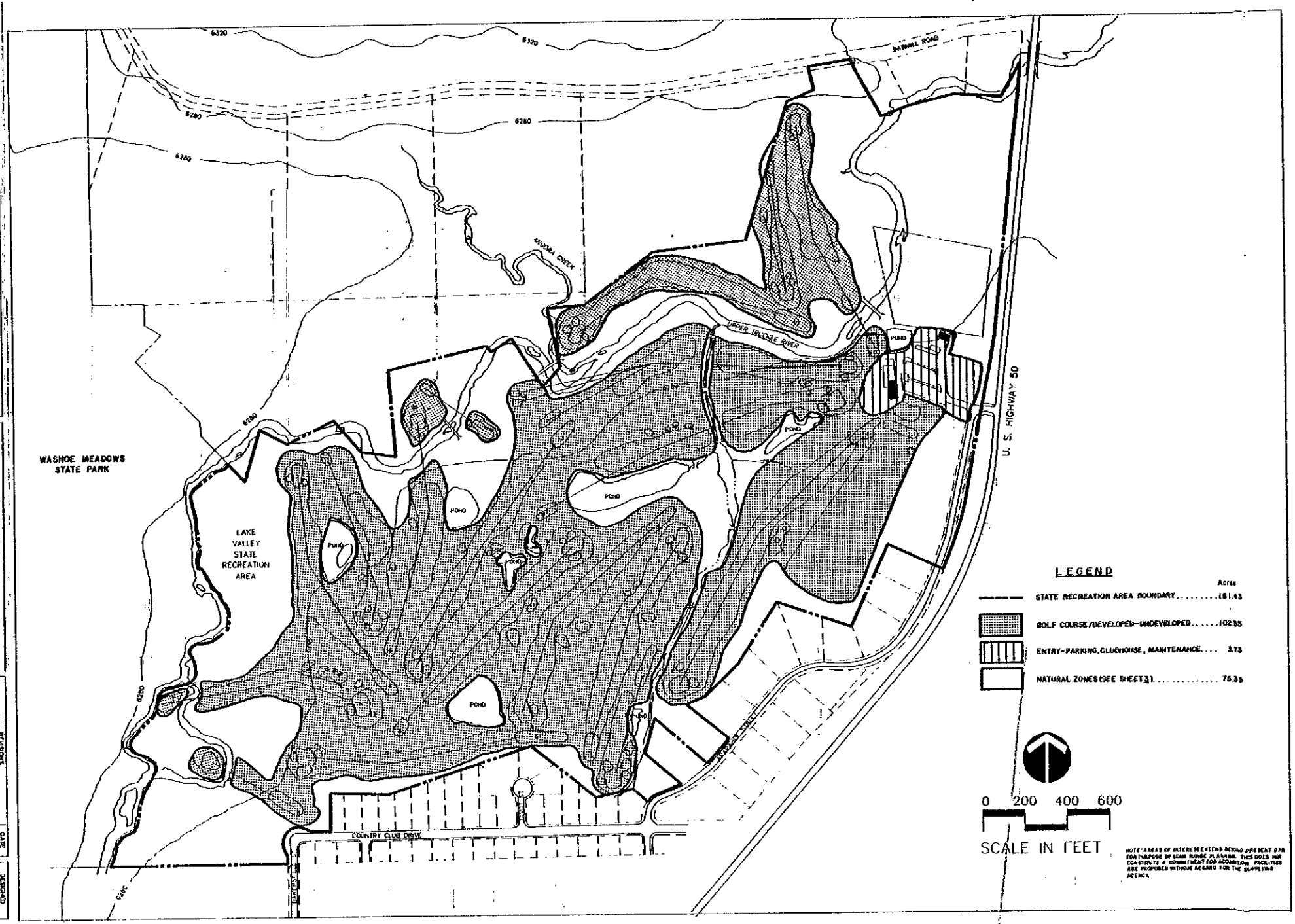
APPROVED _____ DATE _____

REVISIONS	DATE

DESIGNED | DRAWN | CHECKED



NOTE: AREAS OF INTEREST EXTEND BEYOND PRESENT SRA FOR PURPOSE OF LONG RANGE PLANNING. THIS DOES NOT CONSTITUTE A COMMITMENT FOR ACQUISITION. FACILITIES ARE PROPOSED WITHOUT REGARD FOR THE SURPLUSING AGENCY



MAP 4

DRAWING NO. 23871

LAKE VALLEY STATE RECREATION AREA

EXISTING DEVELOPED ZONES

GENERAL PLAN—LAND USE ELEMENT

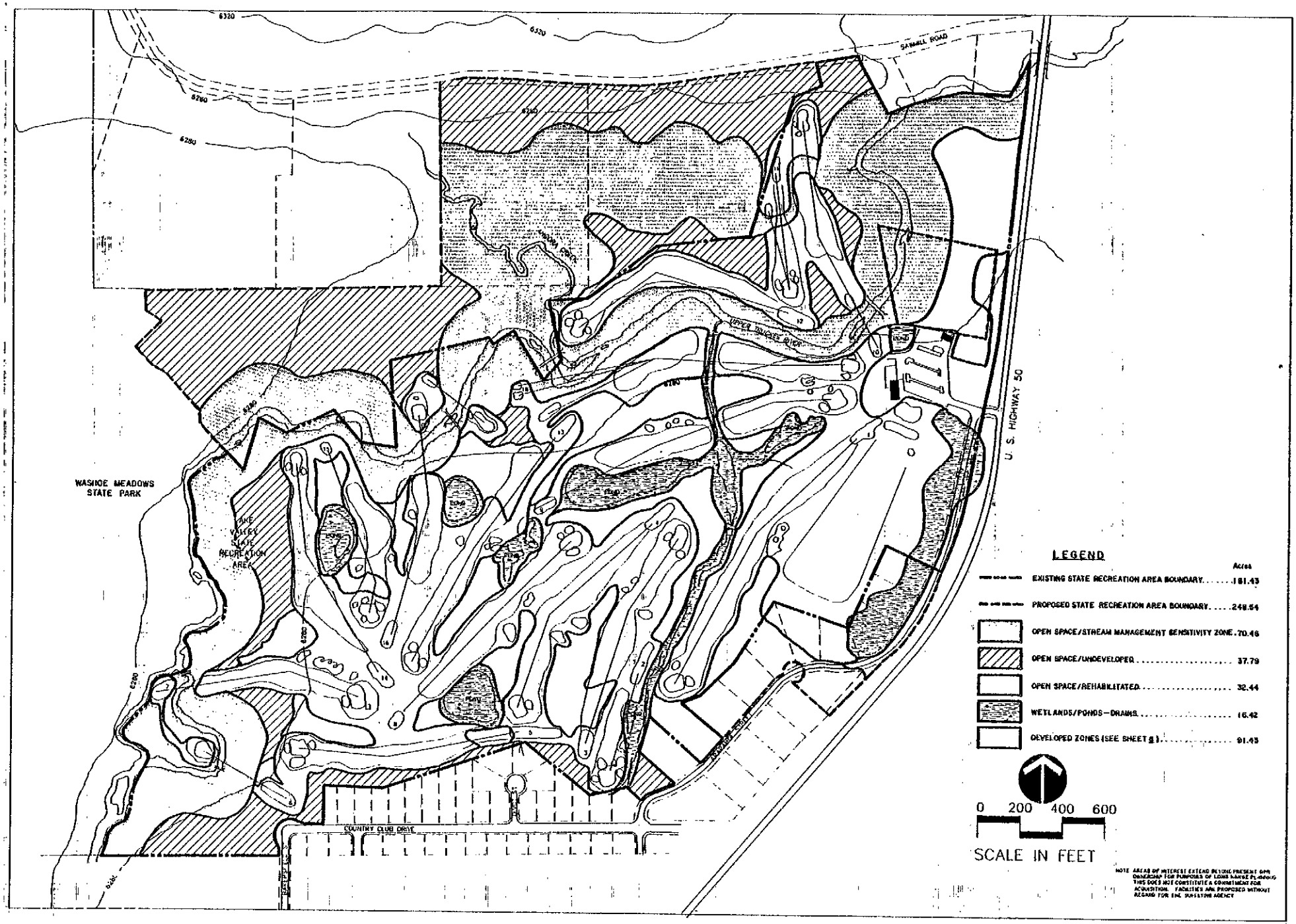
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

APPROVED

DATE

REVISIONS | DATE

DESIGNED | DRAWN | CHECKED



NOTE: AREAS OF INTEREST EXTEND BEYOND PRESENT AND PROPOSED STATE PARK BOUNDARIES FOR PURPOSES OF LONG RANGE PLANNING. THIS DOES NOT CONSTITUTE A COMMITMENT FOR ACQUISITION. FACILITIES ARE PROPOSED WITHOUT ASSURANCE FOR THE OPERATING AGENCY

MAP 5

23872

LAKE VALLEY STATE RECREATION AREA

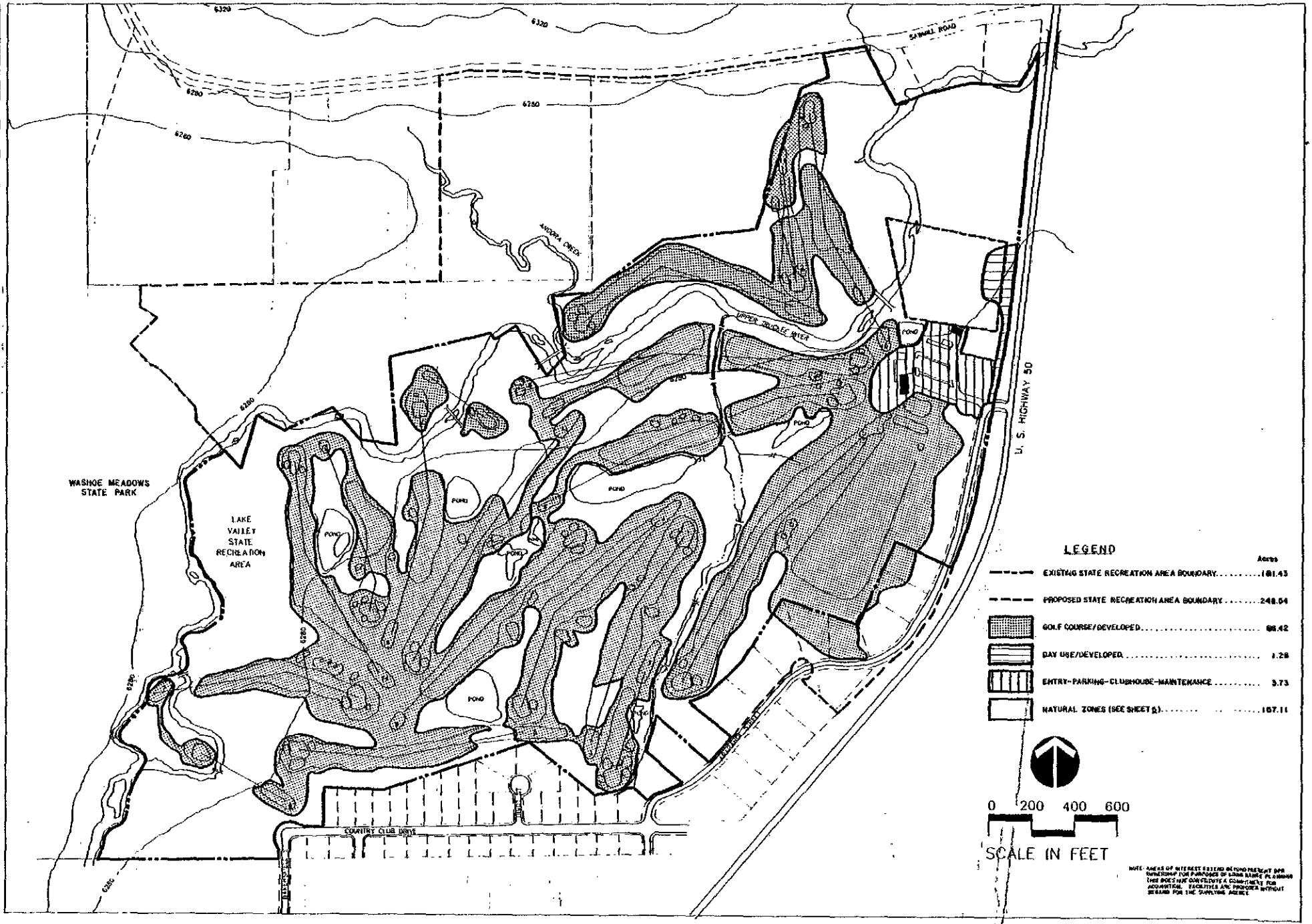
PROPOSED NATURAL ZONES

GENERAL PLAN—LAND USE ELEMENT

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

REVISIONS | DATE

DESIGNED | DRAWN | CHECKED



MAP 6

23873

LAKE VALLEY STATE RECREATION AREA

PROPOSED DEVELOPED ZONES

GENERAL PLAN-LAND USE ELEMENT

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

APPROVED _____ DATE _____

REVISIONS | DATE

DESIGNED | DRAWN | CHECKED

FACILITIES ELEMENT

FACILITIES ELEMENT

The Facilities Element identifies existing facilities and recommends improvements or development of new facilities at Lake Valley State Recreation Area. Land coverage (by impervious materials), land rehabilitation, architectural design concepts, circulation and utility concerns, and priorities for development are also discussed.

Existing Facilities

Type

The existing facilities in this unit were in place prior to the state's involvement in the project. The 18-hole golf course, currently known as the Lake Tahoe Country Club, includes a clubhouse, driving range, putting green, cart storage area, parking lot (115 spaces), snack stand, pump house, six bridges across the Upper Truckee River, and a maintenance area.

Condition

The existing clubhouse structure is a wood-frame building with a low slope roof. It houses the starter, pro shop, bar, snack area, restaurant, kitchen, office, and storage areas. Because of the inadequate space, existing functions intrude on one another and interfere with operations. It has poor energy-related characteristics such as: inadequate insulation for the area, single-pane windows, and no vestibules. The existing cart storage area is immediately adjacent to the building and exposed. There is no adequate cart repair or maintenance area, and the carts must be moved to the maintenance facility in poor weather. The existing maintenance facility consists of two buildings and hard-surface parking and storage areas. As in the clubhouse, the structures are not energy efficient and have inadequate space for the maintenance functions that occur there.

The golf course is in good condition, considering recent water shortages and an irrigation system that needs upgrading. The primary problems involve compaction and erosion due to unpaved service roads and cart paths, golfer safety due to the location of tees and greens within tee shot flight zones, and playing tactics and slow play due to fairway layout and hazard location (particularly on holes 10 and 15). The driving range lacks adequate space for practice and teaching.

In addition, there is inadequate parking during peak summer use periods, difficult ingress and egress during peak traffic periods on Highway 50, and inadequate unit identification at the entry.

Two of the bridges need extensive repairs and should be replaced in the near future. However, all of the bridges' abutments and support structures are adversely affecting stream dynamics and bank erosion. In addition, the existing bridges are too narrow to provide access across the river for fairway mowing and cross-country ski track grooming equipment.

Access

The access to this unit will remain at the existing intersection with Highway 50. It is recommended that safer ingress and egress be provided by the construction of southbound deceleration and acceleration lanes and northbound left-turn and merging lanes. Future increases in Highway 50 traffic may necessitate the installation of appropriate signal lights. Coordination with Caltrans will be needed to determine the traffic levels that would require the installation of turn lanes and signals.

If the parcels adjacent to the driving range along Arapahoe Street are acquired, the northern half of this little-used county road should be abandoned and removed and a cul-de-sac should be developed.

Proposed Facilities

The list of facilities in Table 5 describes the typical components, activities, and/or purposes of each type of development being proposed in this general plan. The list is a guide; actual development will be based on resource, recreational, and operational considerations.

General Design Criteria

The following standards for design will set the tone for development that is appropriate in this park setting.

Clubhouse and Comfort Stations

Functions within the clubhouse should be combined where possible to reduce site coverage and improve efficiency and circulation.

Materials and design of the clubhouse and comfort station structures should reflect the Tahoe-type of mountain architecture with the use of wood exteriors, steep-pitched wood shingle or metal roofs, energy-efficient design, and natural earthtone colors. Orientation and placement of the building shall consider circulation patterns, parking orientation, and maximum use of the viewshed. Techniques such as berming, planting, and orientation should be considered to minimize the impact of the building on the environment.

Maintenance Facility

The design and materials of the structures shall be compatible with the clubhouse design and be appropriate for maintenance structures. Again, techniques such as berming, fencing, planting, and orientation should be considered to minimize the impact of the structures on the environment.

Signs

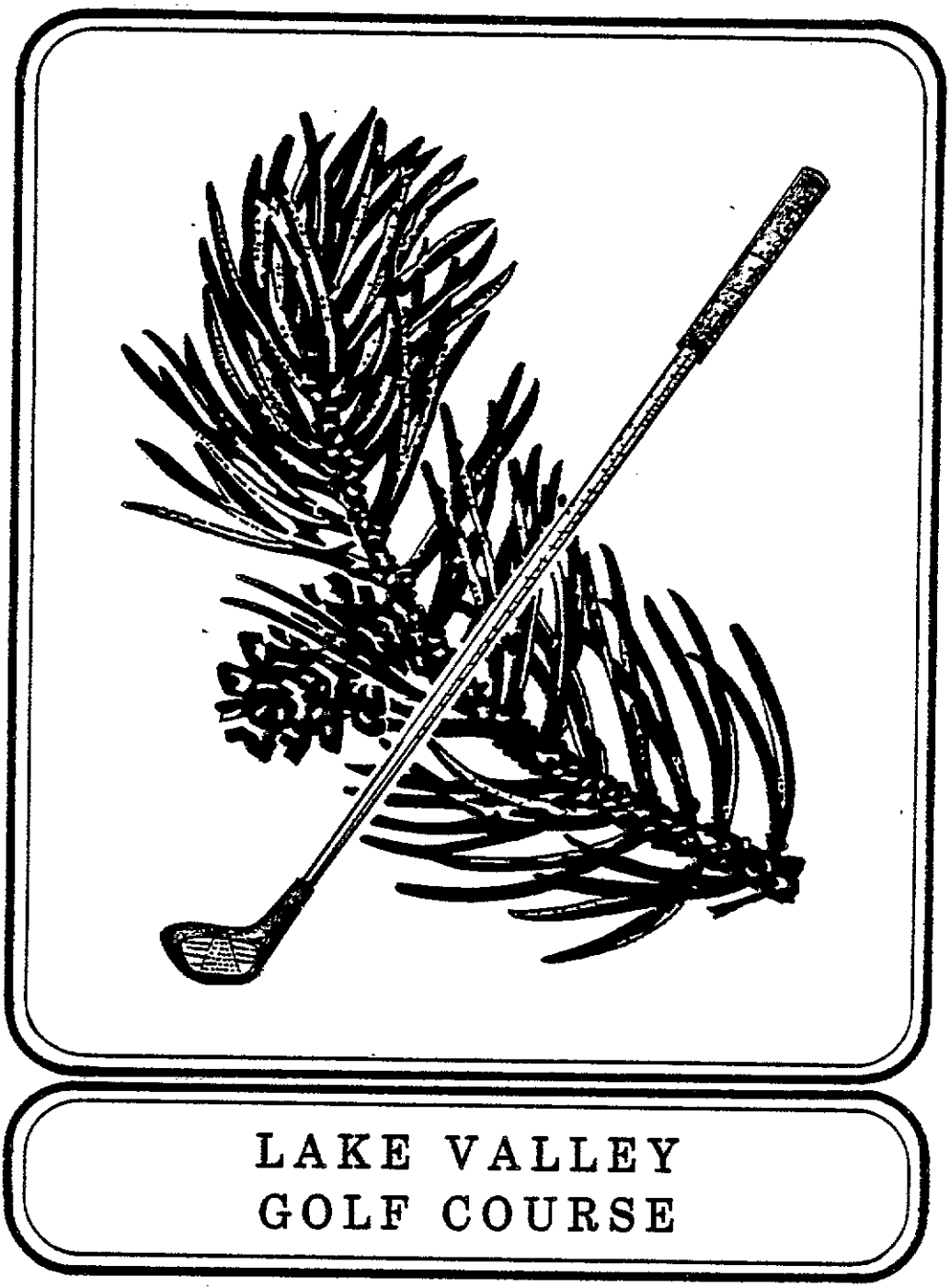
New signs for the Lake Valley Golf Course and Lake Valley State Recreation Area should reflect the character of the site and conform to State Park System standards. The proposed new logo for the golf course is shown in Figure 2. The design incorporates a lodgepole pine bough and cone, and a golf club. Final artwork shall be approved by the Development Division prior to use of the logo by the concessionaire.

TABLE 5

STATE PARK SYSTEM FACILITIES

GRAPHIC SYMBOL	FACILITY – DESCRIPTION/COMPONENTS	ACTIVITY/PURPOSE
	**ENTRY ROAD** Vehicle access point.	*Public vehicular access.*
	**CROSS-COUNTRY SKIING AREA** Trails, parking, chalet.	*Individual and group cross-country skiing*
	**INTERPRETIVE EXHIBIT** Display panel(s).	*Information and education.*
	**RESTROOM** Portable toilet or pit toilet or comfort station or combination building. Utilities as required.	*Sanitation.*
	**SNOWMOBILING AREA** Snowmobile track, parking, chalet.	*Individual and group snowmobiling.*
	**GOLF COURSE** Public golf course with 18 holes, driving range, practice putting green, clubhouse, parking and maintenance area.	*Individual and group golfing.*
	**PARKING** Paved or unpaved vehicle parking area. The number of spaces is as indicated on plan.	*Vehicle parking.*
	**FAMILY PICNIC AREA** The number of units is as indicated on the plan. Each unit contains a parking space, a picnic table, and a BBQ. Each group of units contains a water supply point, a refuse collection point, a restroom.	*Family picknicking, day-use activities.*
	**INTERPRETIVE TRAIL – SELF GUIDED** Short length, loop trail with guide brochure, numbered posts and/or interpretive displays.	*Walking, public education.*

FIGURE 2



Picnic Area

The picnic area should be sited to take advantage of adjacent natural features and interpretive opportunities, such as the stream oxbow and vegetation. Due to the small scale and passive nature of picnicking, adverse impacts on the resources can easily be avoided.

Trails

Trail design and construction should be in accordance with the Department of Parks and Recreation standards and specifications delineated in the California Recreational Trails Plan.

When possible, cross-country ski trails should follow existing dirt roads, trails, cart paths, and service roads.

Parking Areas

The picnic area parking lot and access road should be constructed with an all-weather surface for ease of maintenance.

The overflow parking lot and the cart parking areas by tees and greens may be constructed with a turf-cell product to allow turf growing and normal water percolation to the subgrade. These areas will not be cleared during winter operations. Edges of turf-cell areas should be delineated with curbing, mowing strips, or chalk striping.

Service Roads and Cart Paths

Cart paths should be constructed to a minimum six-foot width. Cart path flares shall have a minimum 20-foot length and exit width.

Service roads and cart paths in the service road system should be constructed to a minimum eight-foot width.

Surfacing may be asphalt or turf-cell materials, depending on adjacent plant materials. Edges of turf-cell areas should be delineated with chalk striping or mowing strips.

These areas will not be cleared during winter operations.

Water Course Crossing Structures

All crossing structures shall be designed to minimize impediments to water flow and the upstream or downstream movement of fish.

Stream and drain crossings shall be low-profile arch culverts with minimal railings for user safety.

River crossings shall be free-span structures with adequate railings for user safety and seasonal requirements.

Bridge widths shall accommodate the following traffic uses:

Bridge at no. 10	-	Carts, patrol vehicles, and fairway mowers
Bridge at no. 12-13	-	Carts and patrol vehicles
Bridge at no. 16-17	-	Carts, patrol vehicles, and cross-country ski track groomer
Bridge at no. 7	-	Carts and patrol vehicles
Bridge at no. 6	-	Carts and patrol vehicles
Bridge at oxbow	-	Patrol vehicles

Planting

Revegetation areas shall have all exotic plants removed and shall be planted with native plants indigenous to the area.

Safety screening plantings shall consist of native trees and shrubs of sufficient size to provide the earliest protection possible.

Landscaping around developed areas shall, where possible, consist of native plants to meet the goal of achieving a natural-appearing setting.

Development Areas

In accordance with the proposed land use zones for the unit, development proposals have been concentrated in distinct areas. For convenience in mapping and identification, each area has been named (see Map 7).

Following is a description of the facilities proposed in each area.

River Flat Area

This area is in the northeast corner of the unit and consists of meadow and river oxbow remnants. The existing old highway paving, frontage road base rock, and exotic plants will be removed and the area revegetated with native plants.

A family picnic site with 10 to 15 units and a comfort station will be developed near the tree grove in the southeast corner of the area. An access road and turnaround will connect this facility to the main unit entry. There is also an opportunity to create an interpretive trail with appropriate signs and displays in this area.

Development in this area will be contingent on acquisition of the existing undeveloped inholding.

Entry, Parking, Clubhouse, Maintenance Area

Development in this area includes upgrading the entry road, installing signs identifying the state recreation area and Lake Valley Golf Course, and constructing an overflow parking area for 60 vehicles.

Replacement of the clubhouse structure will include spaces for a pro shop and starter's desk, office, restrooms, bar, restaurant-snack bar, interpretive displays, and covered cart storage. The clubhouse should accommodate up to 200 people for informal seating. Cart storage (for approximately 90 carts) should be close by or integrated into the structure. Areas for cart cleaning, maintenance and fueling, and gasoline storage should be provided.

Pedestrian and cart circulation paths can be improved to reduce confusion and site coverage.

The maintenance facility structure shall include: a repair shop and parts storage area, an office and break room, restrooms, and other normal support facilities. Fuel tanks for both gasoline and diesel are necessary. A chemical storage facility for volatile and toxic chemicals, such as pesticides and fertilizers, is necessary. Other needed facilities include: equipment parking, soil bins, a dumpster area, and other circulation and general storage areas.

Driving Range Area

The proposals for this area include widening and lengthening the landing area, widening the existing tee, developing a new group teaching tee at the south end, creating a chipping green and low-profile target greens, and developing a cart path to the new south tee.

Also proposed is grading and drainage work to reduce compaction and improve drainage, creation of a wetland/sediment basin to reduce sediment transfer through the site from off-site sources and improve habitat and aquifer recharge potential, and revegetation with native plants.

Access for maintenance of the existing water and sewer lines along the eastern edge of the area shall be provided for the South Tahoe Public Utilities District.

Development of this area is contingent on acquisition of nine vacant parcels and the abandonment of the northern portion of Arapahoe Street.

South Drain Area

The existing drain area should be rehabilitated to improve habitat and aquifer recharge potential, and to reduce sediment transport through the site from off-site sources. Crossing structures should be replaced. The area shall be revegetated with native plants.

Lake Valley Golf Course

Proposals for this area include: removal of unnecessary circulation paths and their revegetation, surfacing of new and existing cart paths and service roads to eliminate erosion, rehabilitation of wasteland areas between fairways, removal of existing turf and irrigation from fairways adjacent to the river at

holes 6, 7, and 16 and revegetation with native plant materials, planting of screening shrubs and trees for safety at holes 2, 3, 4, 5, 8, 9, 13, 14, 15, 16, and 18, improving the playing strategy at hole 15, and developing two on-course comfort stations near holes 5 and 7 and holes 13 and 18.

Upper Truckee River

Proposed development for this area includes replacement of the existing bridges and the existing water diversion point, rehabilitation of the oxbow channel west of holes 6 and 7 to reduce flow, bank erosion, and flooding along the main channel, and restoration of the natural stream channel in accordance with policies in the Resource Element.

Angora Creek Area

Development for this area involves rehabilitation of the old stream channel and rerouting flow to the east, downstream of its present confluence with the Upper Truckee River.

Proposals in this area are contingent on the acquisition of two vacant parcels of land along the northern border of the unit.

Utilities

Telephone

Telephone service is provided by Pacific Bell, which has an office in South Lake Tahoe.

Electrical Power

The utility serving the facility is Sierra Pacific Power Company, which provides both single-phase 110/220 and three-phase 480 to the unit. Additional load is available on application and possession of the necessary permits.

Natural Gas

The utility serving the area is CP National, but the gas main does not reach the unit. If service were desired, the gas main could be extended 1/4 mile at an approximate cost of $5.45/LF, or a total of approximately $7,194 (1987 cost). A portion of this fee would be rebated if others connected to the extended main during a 10-year payback period.

Sanitary Sewer

The sanitary sewer for the facility is owned by the South Tahoe Public Utility District. There is an existing moratorium on new sewer connections or increasing the capacity of existing connections; however, there is a reserve capacity of 60,000 gallons per day for state parks of which only 10,000 GPD is currently being used. This reserve is covered by an agreement between the district and the department that assigns portions of this reserve to each park.

It is expected that no significant problems would be encountered if it were necessary to amend the existing agreement to increase the sewage capacity at Lake Valley SRA.

Potable Water

The drinking water for the facility is supplied by the South Tahoe Public Utility District. The existing connection is a two-inch water meter with a capacity of approximately 160 gallons per minute. If additional capacity is needed, it can be obtained by application and payment of the necessary fees. The utility will require that a backflow prevention device be installed on the water service at state expense because of the utilization of another source of water on the property (golf course irrigation).

Golf Course Irrigation

The present source of water supply for the golf course irrigation system is from a water diversion intake structure on the Upper Truckee River, adjacent to the tee for the 10th fairway and the 18th green. This source was built when the golf course was constructed and has remained essentially the same until now. From the small stream diversion, water is conveyed into a four-foot diameter concrete sump from which it is pumped into the irrigation system. The daily water use is about 756,000 gallons.

Both the quantity and quality of water are marginal. The source is dependent on the fluctuating and seasonal snow pack to provide an adequate flow from the Upper Truckee River. This diversion also has some potential impact on the stream fishery downstream to its confluence with Lake Tahoe. The quality of water is also marginal as it contains sand and occasional other debris that seriously affects the maintenance and operation of the irrigation system sprinkler heads and wear of the pump impellers.

The existing pump station is currently being replaced with a new station utilizing the same diversion structure and sump. Plans indicate that a new 18-inch or 24-inch diameter pipe would be placed from the existing sump to a new 60-inch diameter sump placed below the new pump station. The new sump is indicated to be a minimum of 10-feet deep. A sand filter is also being installed.

Winter Use

Winter activities shall remain essentially as they are now organized, with the clubhouse being utilized as the winter sports center for cross-country skiing and snowmobiling.

The cross-country ski trail system and the snowmobile track are shown on Map 8.

Winter activities are limited by the amount of snow available to provide an adequate track base for safety and for protection of the underlying surfaces (i.e., turf, cart paths, and service roads).

Land Coverage

Land coverage by impervious materials such as buildings, paving, and compacted (disturbed) dirt is a significant issue in the Lake Tahoe basin. Excessive runoff can cause erosion that degrades the water quality of the lake, and impervious surfaces can reduce the aquifer recharge potential, which affects water quality and the health and stability of the natural ecological communities.

TABLE 6

LAND COVERAGE DATA

LAND USE	Existing Conditions (Square Feet) BUILDINGS (Impervious)	PAVING (Impervious)	DISTURBED DIRT (Impervious)	Proposed Conditions (Square Feet) BUILDINGS (Impervious)	PAVING (Impervious)	TURF C (Pervi Mate
Clubhouse Area	3,550	14,450	–	7,000	9,500	–
Entry/Parking Area	–	54,700	–	–	54,700	18,:
Maintenance Area	1,700	11,900	–	2,500	11,900	–
Pump House	100	–	–	100	–	–
Snack Stand	100	–	–	–	–	–
Comfort Stations	–	–	–	350	–	–
Cart Paths	–	–	87,600	–	77,400	–
Cart Parking	–	–	–	–	–	7,:
Service Roads	–	–	136,200	–	48,000	–
Arapahoe	–	40,800	–	–	–	–
Frontage Rd. North	–	–	31,000	–	18,400	–
Old Highway	–	11,000	–	–	–	–
	5,450	132,850	254,800	9,950	219,400	25,6
	393,100 S.F.	=	9.02 Acres	229,350 S.F.	=	5.27

REHABILITATION AREAS

TYPE	LAND AREA = S.F.	ACRES
Natural Revegetation Area	1,846,644	42.4
Natural Revegetated Fairway	123,200	2.8
Wetland Habitat	444,400	10.2
	2,414,244	55.4

Table 6 illustrates the land coverage conditions at the time the department acquired this project and the reduced coverage that the proposals in this general plan could produce. The figures were calculated from 200-scale aerial photographs and plans, and are approximate. More detailed development plans will undoubtedly cause some minor deviations from these figures.

The proposed reduction in land coverage from 9 acres to 5.25 acres could be greater with the use of turf-cell surfacing of some cart paths and service roads.

Rehabilitation Areas

In addition, the department proposes to rehabilitate approximately 55.4 acres of previously disturbed area, as shown on the following table:

TABLE 7
Rehabilitation Areas

TYPE	LAND AREA = S.F.	ACRES
Natural Revegetation Area	1,846,644	42.4
Natural Revegetated Fairway	123,200	2.8
Wetland Habitat	444,400	10.2
	2,414,244	55.4

Natural Revegetation Area

This area (shown on Map 7) includes most of the natural areas between fairways and some areas adjacent to the river within the Stream Management Sensitivity Zone.

Exotic plants and unnatural landforms would be removed and native plant communities would be reestablished in accordance with Resource Element policies.

Natural Revegetated Fairway

This area includes portions of holes 3, 6, 13, and 15. Exotic turf and the irrigation system will be removed from these areas and natural grasses will be replanted.

Wetland Habitat

This area includes approximately two-thirds of the existing and proposed wetland habitat on the site. Rehabilitation will include exotic plant removal, land reshaping, and native plant community establishment.

Priorities

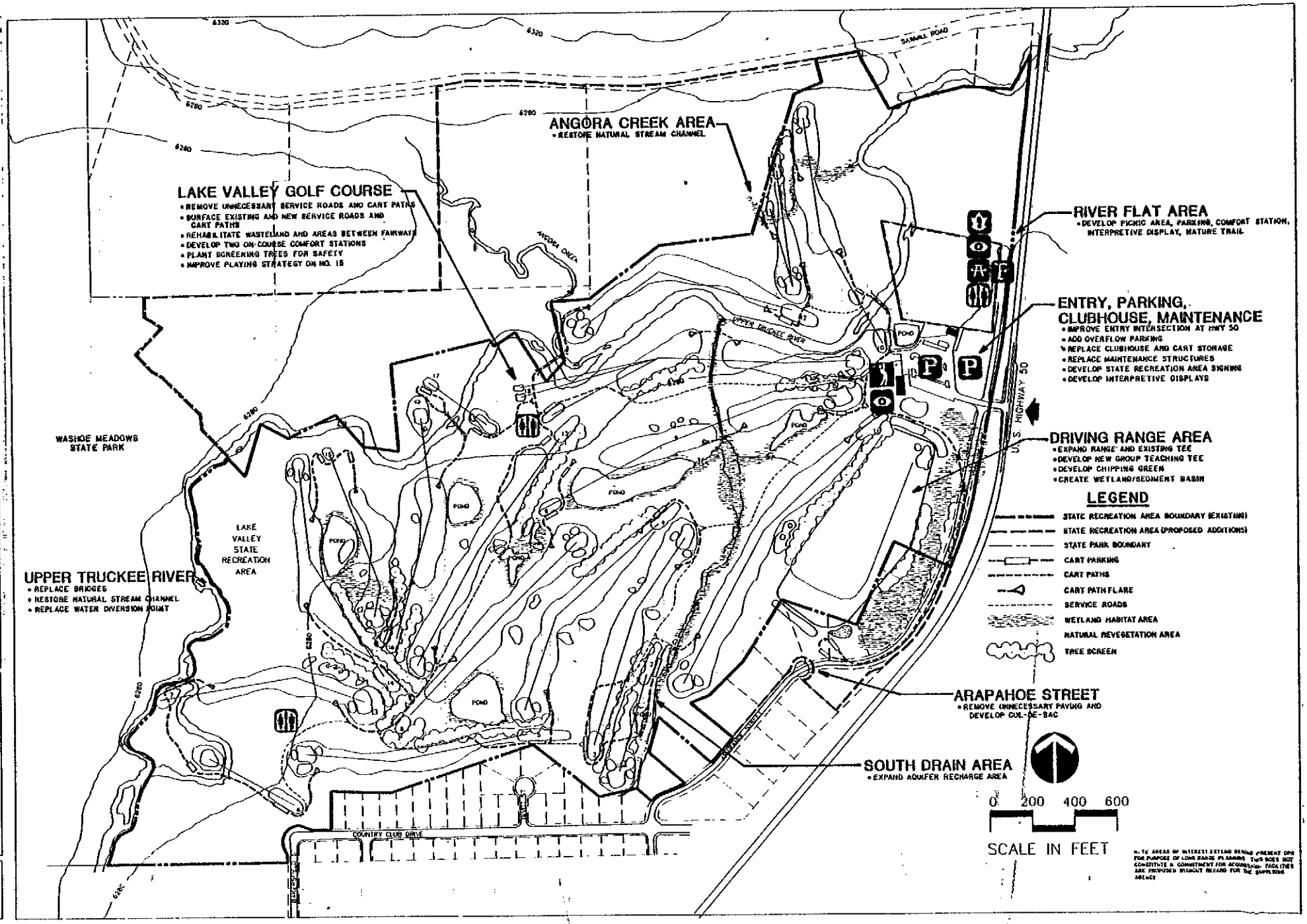
The sequence of implementing the general plan should be based on both the benefit of protecting resources and the improvement of recreation opportunities.

The following facilities and development actions are listed by phases in order of priority, from highest to lowest (items within each phase are not prioritized):

Phase I:
- Entry road - signing
- Comfort stations
- Cart paths
- Service roads
- Revegetation areas
- Bridge replacement
- River restoration
- Oxbow rehabilitation
- Screening trees
- Old highway paving removal (River Flat area)
- Water diversion point

Phase II:
- Clubhouse replacement
- Picnic area
- Interpretive trail
- Interpretive displays and materials
- Cart paths
- Service roads
- Revegetation areas
- Bridge replacement
- Fairway revegetation
- Driving range expansion
- Wetland - sediment pond

Phase III:
- Maintenance area replacement
- Cart paths
- Revegetation areas
- Wetland rehabilitation
- Angora Creek
- Hole 15 revision



MAP 7

23874

LAKE VALLEY STATE RECREATION AREA

FACILITIES PLAN

GENERAL PLAN - FACILITIES ELEMENT

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

APPROVED

DATE

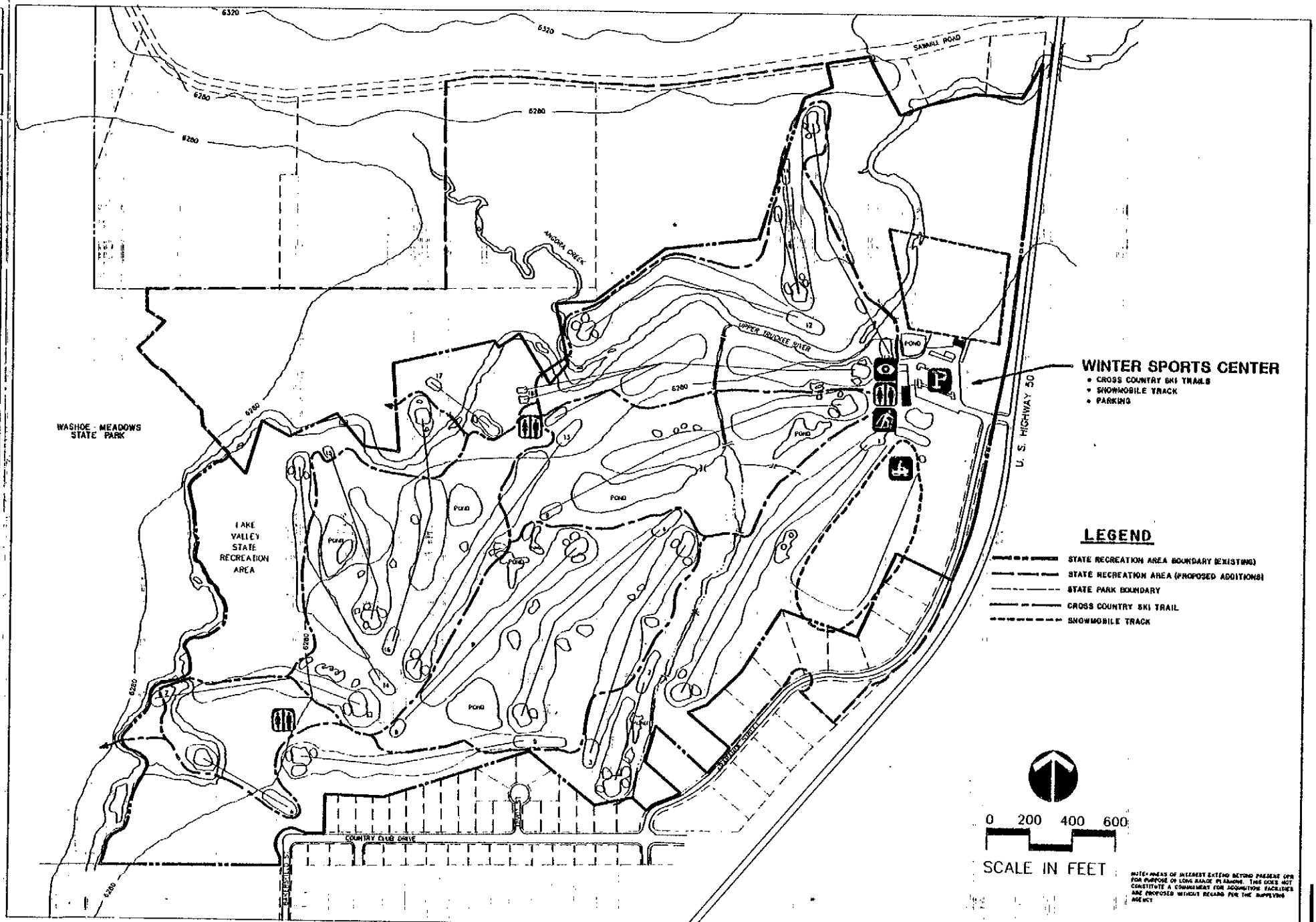
ADDITIONS

DATE

DESIGNED

DRAWN

CHECKED



MAP 8

DRAWING NO. 23875

LAKE VALLEY STATE RECREATION AREA

WINTER USE PLAN

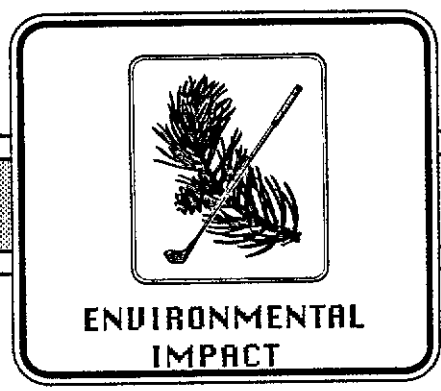
GENERAL PLAN - FACILITIES ELEMENT

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

APPROVED _____ DATE _____

REVISIONS | DATE

DESIGNED | DRAWN | CHECKED


ENVIRONMENTAL
IMPACT

ENVIRONMENTAL IMPACT ELEMENT

The Environmental Impact Element predicts the environmental effects that would result from implementation of the general plan. Together with the other elements of the general plan, it constitutes an Environmental Impact Report (EIR) as required by the California Environmental Quality Act (CEQA).

The general plan describes the long-term plans and policies for a State Park System unit in a generalized way. This element focuses on the likely effects of these generalized plans and policies, suggests mitigation measures, and considers alternative actions.

As the department's annual budget and the concession contract allow, specific development proposals will carry out the general plan. The department will document the environmental effects as required by CEQA and the state CEQA guidelines.

Summary

Class I Impacts: Unavoidable Significant Environmental Impacts

Implementation of the general plan should cause no unavoidable significant adverse impacts on the environment.

Class II Impacts: Mitigable Significant Environmental Impacts

* Expansion and regrading of the driving range.
* Risk of accidents in the use and storage of chemicals.

Class III Impacts: Adverse But Not Significant Impacts

* Construction of three small comfort stations.
* Impact on natural plant communities by visitor use, fire suppression, and accidental introduction of exotic species.
* Possible slight increase in light and glare.
* Possible slight increase in traffic.
* Possible slight decrease in air quality.

Class IV Impacts: Beneficial Environmental Impacts

* Vegetative rehabilitation of natural areas.
* Native animal habitat improvement.
* Creation of wetlands/sediment pond.

* Stabilization of streambanks; replacement of bridges.

* Improvement of recreational opportunities through better facilities and interpretation.

* Development of a complete management program for the section of the Upper Truckee River within the state recreation area.

Project Description

The general plan summary gives the overall description of the project. Various elements provide more detail (e.g., the Resource Element describes the natural and cultural setting, and determines management policies for natural and cultural resources; the Facilities Element describes facility development plans). Other aspects of the unit's environment are described in the following section.

Environmental Impacts and Mitigations

The proposed golf course management plan will have a mitigating effect on many of the following factors.

Geology and Soils

Existing Conditions

The geologic hazards most likely to affect the unit include seismic shaking from fault activity along the Sierra Nevada frontal fault or related systems, liquefaction of saturated soils in response to seismic shaking, and ashfall from a volcanic eruption in the Mono-Long Valley area.

Groundwater levels are very high in the meadows, making the soils extremely vulnerable to compaction and disturbance, and subjecting low-lying areas to seasonal flooding. The erosion hazard is moderate except in disturbed areas such as the banks of the Upper Truckee River, where erosion may be severe.

Impacts

A strong earthquake could damage structures and injure staff and visitors.

Severe streambank erosion could continue without implementation of sound stabilization methods.

Proposed Mitigations

A complete management plan for the section of the Upper Truckee River on State Park System land -- including control of bank erosion -- is presented in the Resource Element.

Air Quality

Existing Conditions

The bowl shape of the Lake Tahoe basin and the frequent occurrence of temperature inversions make the area susceptible to serious air pollution. Automobile exhaust emissions, smoke, dust, and naturally produced terpenes react with sunlight to produce photochemical smog. Concentrations of emitted pollutants are highest during the summer and fall because of those seasons' stable atmospheric conditions and the low level of inversion. The resulting smog irritates the eyes and has the potential for adversely affecting human health. It is damaging to some plants, and it obscures the scenery by reducing visibility.

Impacts

There will not be a significant decrease in air quality from this project.

Proposed Mitigations

None.

Hydrology

Existing Conditions

A portion of the Upper Truckee River, which is the major inflow to Lake Tahoe, defines the western boundary of Lake Valley State Recreation Area; however, the unit contains less than one percent of the 324-square-mile Lake Tahoe watershed.

Destructive flooding in the region has occurred. Recently, residential and urban encroachment on the floodplain has increased both the likelihood of flooding -- because of the increase of impervious surfaces -- and the potential for loss of life and property damage.

Water quality problems in the Lake Tahoe basin are another consequence of urban/suburban development. Eroding streambanks of Angora Creek and the Upper Truckee River, and herbicides, pesticides, and fertilizers used for the golf course, may contribute to the nutrient influx that encourages eutrophication and algal blooms in Lake Tahoe. Fertilizer application for the golf course is based on the current best practices tested and prescribed by the Lahontan Regional Water Quality Control Board. Recent water quality testing by that agency found no excessive concentrations of fertilizer in waters draining the project site.

Existing bridges adversely affect stream dynamics with poorly designed abutments and center span supports.

Impacts

Streambank erosion and chemicals from the golf course could continue to degrade the water quality of the Upper Truckee River and, therefore, of Lake Tahoe.

Proposed Mitigations

If new structures are located within the 100-year floodplain, they should be protected to above-flood level or designed to minimize the effects of immersion. Impervious surfaces and denuded areas could be redesigned or rehabilitated to minimize runoff and erosion.

Replacement bridges could eliminate impacts to stream dynamics through appropriate design and construction.

Preparation of a complete management program for the section of the Upper Truckee River on State Park System land is proposed in the Resource Element. The program would include a stream management sensitivity zone, river management plan, a natural resource management element of the golf course management plan, and a water quality monitoring program. Preparation and implementation of the complete management program would be done in consultation with the Tahoe Regional Planning Agency and with the Lahontan Regional Water Quality Control Board.

Vegetation

Existing Conditions

Nearly 200 vascular plant species have been identified in the unit. Approximately 90 percent are native to California. The three native plant communities are the lodgepole pine forest, sedge meadow, and willow riparian scrub. Introduced golf course turf and associated facility landscaping constitute the remainder of the vegetation in the unit. No rare and/or endangered plant species listed by the state and federal governments and the California Native Plant Society are known to occur at Lake Valley State Recreation Area.

Impacts

Natural plant communities could be further impacted by visitor use, fire suppression, and accidental introduction of exotic species.

Proposed Mitigations

Vegetation restoration and management could increase the number and distribution of native plant communities. Specific policies are included in the Resource Element sections on streambank management and golf course management.

Wildlife

Existing Conditions

The five terrestrial biotic communities within the state recreation area are: middle mountain forest, streamside woodland, middle mountain meadow, freshwater area, and the golf course turf. In all these communities, birds are the most abundant and conspicuous of the animal species. Three state and federally listed endangered or threatened animals, including two mammals and one bird,

may occur in the unit. There are also eight sensitive species -- candidates for listing -- that may be present in the unit. (See the Resource Element for the listing of endangered, threatened, and sensitive animal species.)

The Upper Truckee River, Angora Creek, and the nine artificial ponds of the golf course constitute the freshwater biotic community. A variety of aquatic invertebrates and amphibians inhabit the ponds; the streams support these species plus populations of native and introduced game fish. Cattle grazing in the past and urban development more recently have reduced the suitability of the river as a spawning area for trout species from Lake Tahoe. Sediment from unstable streambanks, channel construction, erosion control projects, and chemicals used for golf course maintenance may have contributed to habitat degradation. Dogs from adjacent residential areas have been observed running loose and chasing wildlife in the unit. Beaver have degraded the riparian area.

Impacts

Implementation of the general plan will not increase adverse impacts on wildlife.

Proposed Mitigations

The proposed management program for the Upper Truckee River would include components to enhance wildlife habitat both in the stream management sensitivity zone and in the golf course area.

Noise

Existing Conditions

Ambient noise sources are: the nearby residential areas, overhead air traffic to and from Lake Tahoe Airport, and highway traffic on State Highway 50. Noise generated on the site includes vehicle sounds in the parking lot and golf carts and turf grooming equipment on the golf course.

Impacts

There will not be a noticeable change in sound levels from this project.

Proposed Mitigations

None.

Light/Glare

Existing Conditions

Parking areas and structures for the golf course are sources of light and glare.

Impacts

Additional development may slightly increase the sources of light and glare.

Proposed Mitigations

None.

Potential Hazards

Existing Conditions

Routine care of the golf course requires use of various chemicals (fertilizers, pesticides, herbicides) for maintenance of the turf.

Impacts

Storage and use of chemicals for the golf course may present a risk in the event of an accident.

Proposed Mitigations

A safety plan could be developed to regulate the types of chemicals as well as their storage and use. In case of accident, the plan would specify means to prevent contamination of water courses and identify agencies that should be notified.

Traffic

Existing Conditions

Primary access to the unit is off State Highway 50. According to the California Department of Transportation, the 1986 average daily traffic (ADT) estimate is 13,800 vehicles for the segment of highway adjacent to the SRA. Peak month ADT is 19,700. During peak hours, traffic flow is 1,800 per hour. Visitor attendance figures for the SRA for 1986 and 1987 give an ADT estimate of 176 (summer use period). This is 1.3 percent of the traffic along State Highway 50.

There are no traffic lanes provided for eastbound traffic to turn left into the SRA. Westbound traffic must slow to exit the highway on a right turn into the SRA.

Impacts

No significant increase in traffic volume will occur as a result of this plan.

Proposed Mitigations

Turn lanes could be developed at the entry road intersection with State Highway 50.

Water and Sewage/Wastewater

Existing Conditions

Potable water and sanitary sewer services are provided by the South Tahoe Public Utility District. The current and reserve capacities of these utilities exceed the needs of the state recreation area.

Impacts

If additional services were needed in the future, they could be provided by the utility district with no significant difficulties.

Proposed Mitigations

None.

Cultural Resources

Existing Conditions

No cultural resources were identified at the unit. Landscape modification, such as earth moving and grading for the construction of the golf course, could have buried Native American and Euroamerican resources.

Impacts

Possible future modifications of the golf course could expose or damage underground cultural sites and artifacts.

Proposed Mitigations

Any major landscape modifications to the golf course will require monitoring by an archeologist. If resources are located, mitigation measures must be determined to minimize any negative impacts.

Esthetic Resources

Existing Conditions

The natural beauty of the Lake Tahoe basin is enjoyed as a surrounding backdrop by visitors using the golf course and winter sports facilities. The significant scenic features are the Upper Truckee River corridor through the unit, and Twin Peaks to the north. Negative features are: the air transportation corridor for the Lake Tahoe Airport, sights and sounds of State Highway 50 and nearby residential areas, and utility lines along portions of the state highway and the Upper Truckee River.

The golf course facilities and parking area give the impression of a commercial development. The golf course structures and paved areas are fully visible from the highway and contrast with the natural scenic qualities of the area.

Impacts

Replacement of the existing golf course structures could further detract from the area's scenic values if they are not sensitively designed.

Proposed Mitigations

Utility lines could be laid underground whenever possible. Architectural styles, building materials, and colors that are compatible with the natural environment could be incorporated by design. Appropriate landscaping of the golf course facilities, and particularly the parking area, could improve the appearance of the unit as viewed from the highway.

Recreation Resources

Existing Conditions

The primary feature of the unit is the popular 18-hole championship golf course. The course is often filled to capacity much of the day during its May through October operating season. Mid-summer brings trout fishing on the Upper Truckee River. Winter seasonal activities include snowmobiling and Nordic skiing. The snowmobile track is located on the golf course driving range. The parking lot is the trailhead for skiers, who have access to adajcent Washoe Meadows State Park and U.S. Forest Service lands.

Some passive recreation activities (e.g., photography, birdwatching, nature study) occur on the site.

Impacts

The proposed general plan would improve facilities of the existing golf course. Visitation to the site for passive recreation may increase slightly as the public becomes aware of the site's classification as a state recreation area.

Proposed Mitigations

Interpretive programs and public facilities would meet the demand for alternative recreational activities at the state recreation area. Future development of Washoe Meadows State Park would also be helpful in meeting expanding demands for public parklands.

Effects Not Found To Be Significant

Should the proposed general plan be implemented with the mitigation measures recommended in the policy sections and the Environmental Impact Element, there should not be significant adverse effects involving the following aspects of the local environment: geology and soils, air quality, hydrology, vegetation, wildlife, noise, light and glare, potential hazards (risk of upset), traffic, water and sewage/wastewater, cultural resources, esthetic resources, and recreation resources.

Significant Effects That Cannot Be Avoided

Implementation of the general plan should cause no unavoidable significant adverse effects on the environment.

Relationship Between Short-Term Uses and Long-Term Productivity

The long-term management of Lake Valley State Recreation Area has largely been determined by previous acquisition and classification actions. The specific purposes and restraints of these actions are found in the Resource Element. In brief, the statutory purpose for the acquisition of 777 acres of land (by the Wildlife Conservation Board in 1984) was to protect the watershed, particularly the Upper Truckee River flowing into Lake Tahoe. Also, by statute, the property was transferred to the Department of Parks and Recreation to be "operated and maintained...in a manner which promotes its environmental and recreational values."

In March 1987, the State Park and Recreation Commission classified the property as two separate State Park System units: Washoe Meadows State Park (approximately 608 acres) and Lake Valley State Recreation Area (approximately 169 acres). The general plan for this unit is consistent with the statutory purpose of the acquisition of the land, and with the classification approved by the State Park and Recreation Commission. The Declaration of Purpose balances the objectives of continuation of the golf course use with the restoration of the ecologically sensitive Upper Truckee River.

The short-term uses of the state recreation area, under these management objectives, will protect and enhance both the recreational and the ecological resources for the public's benefit. They will not affect any future productive uses.

Growth-Inducing Impacts

The proposed improvements to Lake Valley State Recreation Area will continue to provide public recreational opportunities to the people of the Lake Tahoe basin communities and the rest of California, at the same time protecting the important watershed. The general plan proposals will not induce new growth in the area.

Cumulative Impacts

Implementation of the general plan will not have any appreciable environmental impact in the area. Slight increases in traffic, air pollution, or light and glare could be offset by water quality improvements, stream zone management, enhanced recreational opportunities, and rehabilitation of vegetation and wildlife habitat.

Alternatives

No Project

This alternative would produce no new facilities, no major modifications to existing facilities, and no resource protection measures in the state recreation area. The consequences of "no project" would be to maintain the golf course in its current configuration, with its current facilities, and to continue golf course operations and winter recreation activities. The "no project" alternative also would preclude the implementation of resource protection programs designed to reduce or eliminate existing environmental problems with water quality and streambank stabilization.

Restoration to a Natural Condition

Another alternative is restoration of the entire unit, including the existing golf course, to a natural condition. Restoration would require removal of the golf course and its facilities, including structures, paths, turf, nonindigenous trees, traps, and ponds. This would be followed by recontouring to reestablish a natural configuration approximating the site's original topography. River terraces and benches, remnant oxbow channels, and low wetland areas would be re-created. The site would be stabilized with plantings and reseeded with native species to protect unstabilized soil and to encourage the successful restoration of the site by natural processes.

Restoration could increase wildlife habitat, regeneration of native plant communities, and water quality protection. The risk of flooding might be somewhat decreased with the removal of impervious materials, and the potential damage to property could be reduced. Traffic and circulation impacts might be decreased. Recreational activities different from those currently available could accompany the return to a natural condition; on the other hand, elimination of the golf course would deprive the community, and the people of the state, of a popular and long-standing recreational resource. Scenic values could be enhanced by the removal of structures and paving not needed for visitors' convenience. Restoration would have negligible effects on air quality, noise, light and glare, and cultural resources.

This alternative would be consistent with the purpose of the 1984 acquisition of the land, but it would be inconsistent with the classification by the State Park and Recreation Commission in 1987, which called for the continuation of the golf course.

Organizations and Individuals Contacted In Preparation Of The Environmental Impact Element

U.S. Army Corps of Engineers, Sacramento District - Robert W. Junell, Chief, Regulatory Unit 2; Walter Yep, Chief, Planning Division

Tahoe Regional Planning Agency - Jean Shaffer, Principal Planner

El Dorado County, Department of Transportation - Bill Pearson, Associate Civil Engineer

South Tahoe Public Utility District - James R. Cofer, General Manager

State of California:

Lahontan Regional Water Quality Control Board - O. R. Butterfield, Executive Officer

Department of Transportation, District 3 - Brian J. Smith, Chief, Environmental Branch; Jeannie Baker; Jim Brake, Traffic Operations Branch

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