DEL VALLE RESERVOIR STATE RECREATION AREA

GENERAL DEVELOPMENT PLAN

Prepared By

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DEL VALLE SUMMARY

Recreation is one of the primary project purposes of Del Valle Reservoir. The Department of Parks and Recreation has exercised its authority (Davis-Dolwig Act) to design, construct, and obtain an operating agency subject to approval of the Department of Water Resources.

The Del Valle Reservoir is located in central Alameda County, approximately five miles south of the City of Livermore.

The freeway systems make it easily accessible for the four and one-half million people within fifty miles of the site.

Del Valle Reservoir lies in a natural setting with approximately 715 water surface acres at recreation pool* and approximately 2730 acres of land available for land based facilities and public open space.

The General Development Plan proposed in this publication will provide 450 picnic sites, 4600 lineal feet of sand and gravel swimming beach, 1200 day use parking spaces, an equestrian center and assembly area, 21.4 miles of riding and hiking trails, 4 boat launching lanes with 170 car/trailer parking spaces, 210 family campsites, 102 primitive camps, 4 group camps, and two equestrian camps.

The recreation facilities will be constructed in five stages (Stage I being that which is either existing or under construction). The State of California will construct Stages I, II, III and IV with the recreation operating agency being responsible for Stage V. The total cost of the facilities is estimated to be $4,300,000.

The East Bay Regional Park District will be the operating agency for this unit of the State Park System.

*Recreation Pool - The benefits attributed to the recreation purpose of Del Valle Reservoir account for 51% of the justification for its construction. Because of this, Department of Water Resources has established that the maximum recreation pool or conservation pool (704 elevation) will be attained by June 1 of each year and retained through Labor Day until approximately 1985.

INTRODUCTION

LOCATION AND ACCESS

Lake Del Valle is located in central Alameda County, approximately five miles south of the City of Livermore in the Arroyo del Valle. This location is on the periphery of the metropolitan San Francisco Bay Area, with a population of more than four and one-half million people within fifty miles of the site.

Freeway systems make the Livermore area easily accessible from the San Francisco Bay area, the Central Valley and the Santa Clara Valley. A relocated county road provides easy access to the recreation area from Livermore.

ACQUISITION

Del Valle Dam and Lake Del Valle are features of the South Bay Aqueduct, which is a part of the State Water Project. They were added as features of the South Bay Aqueduct by order of the Director of Resources on October 14, 1958.

A total of 3,445.6 acres have been acquired for all project purposes. Of this total 3,397.3 acres was a portion of the summer cattle range owned by the Patterson family. The remaining lands were purchased from Alameda County (44.9 acres) and Schenley Distillers Corporation (3.4 acres).

Construction of the dam began in April of 1966 and was completed in November of 1967. The primary functions of the reservoir are aqueduct regulation, flood control and recreation. The benefits attributed to the recreation purpose of Lake Del Valle accounted for 51% of the justification for construction of the feature.

Potential areas for further acquisition exist downstream of the dam. Lands already owned by the State in the vicinity of the Del Valle pumping plant could, with the addition of lands owned by Alameda County and Livermore Area Recreation and Park District (LARPD) make a substantial addition to the recreation potential of the area. The LARPD presently operates a small park with 12 campsites and 24 picnic units on the property that they own.

DAM AND RESERVOIR FEATURES

Del Valle Dam is an earth fill structure about 220 feet high and 880 feet long at the crest. At the spillway crest elevation of 745 feet. Lake Del Valle has a potential surface area of 1,060 acres. This coincides with the maximum flood control elevation, an elevation which seldom, if ever, will be reached. The pool of the most concern to

recreation is the conservation storage pool, or recreation pool, of 40,000 acre feet at the elevation of 704 feet. The water surface area at this elevation is about 715 acres and forms a lake five miles in length with a shoreline of 16 miles.

The reservoir operation plan to be effective through 1985 will have the reservoir at maximum conservation pool by the first of June.

Surface evaporation will reduce this level approximately 2 feet by the first of September thus providing a nearly stable recreation pool during the major portion of the recreation season. The minimum pool for the period through 1985 is 20,000 acre feet or elevation 668 and would be reached by the last of November. An operation plan for the period beyond 1985 will be based upon the water requirements of the South Bay Aqueduct at that time.

Water is supplied to Lake Del Valle by runoff from the Arroyo del Valle and its tributaries, and from the South Bay Aqueduct. The Del Valle pumping plant and a branch pipeline to the dam supplies water from the aqueduct to the lake. Outlet works release water to the stream channel for flood control and to satisfy downstream water rights.

Flood control storage will be utilized only during times of high runoff in Arroyo del Valle, and the water stored will be released in a short time, depending on flood operation criteria. The dam was designed to allow a flood surcharge of 19.6 feet above the spillway crest elevation. Studies indicate that flood control storage capacity must be reserved for the period November 1 through April 1. Federal participation for flood control was authorized in the United States Flood Control Act of 1962; thus flood control regulation in Lake Del Valle is subject to approval of the Secretary of the Army. Due to the flood control aspects of the reservoir, structures between the elevation of 704 and 745 should be built to withstand infrequent flooding.

SITE PHYSIOGRAPHY

The Arroyo del Valle is a relatively narrow drainage flowing from southeast to the northwest. It contains running water until mid-summer after which the water sinks below the surface. Numerous drainages which flow into the Arroyo del Valle are dry most of the year. Most of the springs of the area have been developed for cattle watering purposes.

The terrain is rugged with land suitable for recreation development scarce near the dam and in the first three mile stretch above the dam. Small isolated areas exist but are of insufficient size to warrant extensive development. The major areas of suitable recreation land are to be found at the upper end of the reservoir

where a series of flat or gradually sloping areas are located. Some are without shade producing cover but others contain park like stands of oak and pine.

The geological formations around the reservoir are known as the Panoche Formation (characterized by sand, sandstone, and shale) on the southwestern side of the reservoir, and the Livermore Gravels Formation (a group of gravels, sands and clays over a broad flood plain) on the northeastern side with alluvial deposits in the Arroyo del Valle bottom. Two faults within the area are the Williams Fault along Rocky Ridge and the Valle Fault near the upper end of the reservoir. Both faults are post-Cretaceous. Several landslides, both active and potentially active, were mapped in a geological study made by the Department of Water Resources in 1964.

The natural vegetation of the area is typical of the inner coastal foothills. The Arroyo bottom and north facing slopes support heavy stands of Live Oak, Blue Oak, Sycamore and Digger Pines with scattered Buckeye and Elderberry. The south facing slopes support the same type of cover but in thin stands confined generally to the bottom and the sides of the canyons. On some of the more accessible lands, the trees have been removed and the growth of grass for livestock grazing has been encouraged.

The climate of the Livermore Valley area is typical of Central California inner valleys and may be described as semi-arid with relatively hot, dry summers and cool moist winters. Spring and fall are quite comfortable and are the most picturesque periods of the region. More than eighty percent of the annual rainfall, average 15.3 inches, occurs from November through March. Day time temperatures often reach 100 degrees with recorded temperatures ranging from 19 degrees to 113 degrees Farenheit.

CLASSIFICATION

This unit is known as Lake Del Valle State Recreation Area. Provisions have been made in the plan for picnic areas, camping areas, swimming beaches, boat launching facilities, marina/sailing center, equestrian facilities and riding and hiking trails.

MANAGEMENT PLAN

The State Department of Parks and Recreation is charged with the responsibility of operating recreation facilities at state water projects; however, it is encouraged to contract with other public agencies to discharge this responsibility.* Operation of the recreation facilities at Del Valle Reservoir have been discussed with officials of the Livermore Area Recreation and Park District (LARPD), Alameda County and with

*Water Code Section 11900-11925, the "Davis-Dolwig Act"

the East Bay Regional Park District (EBRPD). Officials of both LARPD and EBRPD indicated an interest in the project. A definite committment was received for the LARPD Board of Directors in resolution number 45, dated March 1, 1960 stating that it wished to be the operating agency of the recreation facilities at Lake Del Valle. The EBRPD reserved submitting its application to avoid competing against the Livermore agency. On September 17, 1965, the State Park Commission authorized the Department of Parks and Recreation to negotiate an agreement with the Livermore agency to insure operation of all recreational facilities at Del Valle Reservoir. On February 11, 1970 LARPD withdrew its application to be the operator of the facility. On July 1, 1970 EBRPD took over operation of the unit under an interim operating agreement. A fifty (50) year operating agreement is presently being processed between EBRPD and the State.

Although fish and wildlife enhancement is not a project purpose, a warm water fishery at Del Valle is necessary. Fish species that can survive in the reservoir are blackbass, bluegill and catfish. Trout have also been planted with apparent success. Operation of this fishery is the responsibility of the State Department of Fish and Game.

NEED

Del Valle Reservoir is located within the one-to-two hour travel time zone of the San Francisco Metropolitan Complex, 1/the second most populous area within the State. It is also within the one-to-two hour travel time zone of the Stockton Metropolitan area and the two-to-four hour travel time zone of the Sacramento and Fresno Metropolitan areas.

Existing and projected populations* of these metropolitan centers are:

	1970	1980	2000
San Francisco-Oakland San Jose Metropolitan Complex	4,306,600	5,054,600	6,822,600
Stockton	291,900	339,000	445,100
Sacramento	621,500	727,300	958,500
Fresno	413,700	453,900	552,600

*Department of Finance

The recreation demand for residents of these metropolitan centers is increasing faster than the population growth. The San Francisco Metropolitan Complex, which will exert the greatest pressure on this area, is expected to realize a 46% population increase between 1960 and 1980. During this same twenty year period, the recretion demand is expected to increase 67% or 1.45 times the population growth.

The new facilities needed from all suppliers to meet existing and future recreation demands of these metropolitan centers within their respective travel time zones of Del Valle Reservoir include:

One-to-two hour travel time zone	1970	1980	2000
San Francisco-Oakland-San Jose Metropolitan Complex			
camp units	2850	3010	5740
picnic units	-471(surplus)	-31(surplus)	2049
boat access parking	-664(surplus)	-354(surplus)	586

1/ Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara and Solano Counties.

** This unit is considered a regional type park and will be operated by the East Bay Regional Park District. Regional deficiencies focus on the day use activities. The boating access provided meets the minimum requirements to make this fresh water lake accessible to the public.

	1970	1980	2000
Stockton Metropolitan Area			
camp units	100	160	280
picnic units	13	53	133
boat access parking	9	19	59
Two-to-four hour travel time zone			
Sacramento Metropolitan Area			
picnic units	157	277	607
boat access parking	-17(surplus)	33	193
Fresno Metropolitan Area			
picnic units	96	146	306
boat access parking	17	47	127

The proposed constant water level during the summer season will enhance the recreational attraction of this unit.

THE PLAN FOR DEVELOPMENT

Lake Del Valle is a long, narrow body of water with three distinct basins connected by two narrow channels. The two downstream basins and the connecting channels have steep side slopes with very few areas suitable for development. This limits accessibility to these areas, making them most useful for primitive type developments for hike-in or boat-in users. The upstream basin is the shallowest of the three basins and it is around this basin that most of the developable land is located.

For ease of identification the lands around Lake Del valle are broken down into eight areas. The Conejo, Mendenhall, Venados, Arroyo Mocho and Cedar Mountain areas are located on the northeasterly shore and the Punta Vaca, Ardilla and Rocky Ridge areas along the southwestern shore. County roads provide access to some of these areas with trails and fire roads providing access to others. A riding and hiking trail will eventually traverse the entire shoreline, thus connecting all areas.

PLANNING HISTORY

The plan presented in this report is somewhat different than those of earlier planning studies. In the early planning stages (1962-63) a plan evolved which had extensive day use, boating and concession developments in the Conejo, Mendenhall, Venados and Arroyo Mocho areas. Three of these areas, the Conejo, Mendenhall and Venados are quite steep and have limited development potential.

To provide access to this recreation development a road beginning at Arroyo Road in the vicinity of the county sanitarium downstream of the dam and proceeding along the northern side of the reservoir to a connection with the new county road at the eastern end of the reservoir was proposed. Engineering studies indicate that to construct this roadway within the confines of the project boundaries would have required very steep grades in the 10% to 17% range in many places. With additional acquisition it would have been possible to lessen grade problems; however, additional acquisition was not approved. Consideration of this plan and road was dropped in 1964 due to extensive costs that would be involved in acquisition and construction of the road, and the fact that the new Del Valle County road would have the capacity to serve the visitor attendance.

In December of 1966 the Department of Water Resources published Bulletin 117-2, the Recreation Development Plan for Del Valle Reservoir. This report reflected development proposals necessitated by a water operation schedule with extreme water surface fluctuations. It became desirable to create sub-impoundments or swimming lagoons to enable visitors to swim in areas independent of reservoir fluctuations. The construction of these swimming lagoons were criticized from the standpoints of increased development cost and public health.

Bulletin 117-2 also chose the Venados area as the site for initial boating facilities, primarily due to its location in relation to the low conservation pool elevation of 638 feet. Boating facilities in this location had two serious drawbacks: (1) difficult and costly access problems, and (2) inadequate developable area for car-trailer parking.

The development plan supported by Bulletin 117-2 has been invalidated by an improved operating schedule for water releases, one which enhances the recreation function to at least 1985. This improved operating schedule will have Lake Del Valle at the maximum conservation pool of 40,000 acre-feet (elevation 704 feet) by June 1 of each year. This storage, less surface evaporation, will be retained through Labor Day, after which it will be reduced to a low of 20,000 acre-feet by the end of November.

The development proposals contained in this report were made possible by the new operating schedule and reflect a concentration of development in the upper or southeasterly end of the Lake. It is here that the major portion of the developable land is located and where access is much easier. By concentrating the recreation facilities in this area it will not only become a less costly development but will also leave a large portion of the reservoir in a near natural state.

A brief description of the eight areas around Lake Del Valle and a discussion of the rationale behind these developments follows. The Arroyo Mocho area on the northern shore and the Rocky Ridge area on the southern shore of the upstream basin will supply initial boating, day use and camping developments.

The Cedar Mountain and Venados areas will be the next to be developed with administrative, equestrian and primitive facilities. Future development of other areas will depend upon availability of development funds and public demand.

ARROYO MOCHO AREA

The Arroyo Mocho area on the northern shore of the upstream basin was chosen as the area for initial development by reason of easy access and good developable lands. Access is from the relocated Del Valle County Road which passes through the eastern side of the area. A road used for construction of the boat ramp will be improved to provide access from the county road to the recreation developments.

A large, gently sloping shelf of approximately 60 acres provides one of the most developable areas on the reservoir. Some tree cover exists, primarily in the drainages, with most of the area covered by grasses and perennials as modified by livestock grazing. Developments for the area are primarily day use oriented and include boating, picnicking and swimming.

1. Boating Facilities

The boating facilities are located near the western end of the area and include a marina/sailing center, 4 lane boat ramp and a 170 car/trailer parking area. The marina/sailing center will include a small portable concession, boat berthing for approximately 60 boats, crane hoist launch facility, small boat storage building, and a boating center building. The marina area will also be the starting point of the proposed motor launch (see 2.).

This site was selected for the boating facilities for four reasons:

a. Relationship to the low pool elevation of 668.

b. Satisfactory gradient for a boat ramp.

c. Water in the marina location at low pool.

d. Less costly and much easier access than site originally selected in the Venados area.

The size of the boating facility was determined by the number of boats that Lake Del Valle could support. By assigning an area of 3 acres per boat for a safety factor and applying it to the size of the lake, 715 surface acres at the high conservation pool, we came up with a capacity of approximately 240 boats. After subtracting the 60 boats in the marina we are left with approximately 180 boats which can be launched at the boat ramp. Studies have shown that each launching lane can launch 50 boats per day, therefore, a four lane boat ramp has been constructed.

Courtesy boat docks at the boat ramp and at the sail boat launching facility and a comfort station nearby are provided for the boaters convenience.

2. Motor Launch Facility

A motor launch will provide access to areas around the lake which lack automotive access. The launch will operate on a scheduled basis providing both water transportation and a concession service. The schedule could vary depending upon season of the year and day of the week. The concession service would handle camper and picnic supplies as well as a bait concession for fishermen. The launch will originate at the marina in the Arroyo Mocho area where its concession service can be resupplied after each trip up the reservoir.

3. Day Use Facilities

A major swimming and picnicking development will also be located in the Arroyo Mocho area. A beach of approximately 100,000 sq. ft. and 900 lineal feet of water frontage will be capable of handling 1250 people

(80 sq. ft. per person) at the high conservation pool elevation of 704 feet. A promenade, turfed areas for sunbathing and free play, and a children's play zone (with swings, slides, etc.) are located adjacent to the beach. A paved plaza with a visitor services structure and comfort station/dressing room facility will be located on an elevated area behind the beach. The elevated position (elevation of 723 feet) of this plaza is to lessen the potential flooding conditions made possible by the flood control purpose of the reservoir. Another paved plaza with a comfort station/dressing room facility is located near the children's play area. Some grading will be required to obtain the desired uniform 7% slope for a suitable beach development. Sand will be imported and spread over the beach area and children's play zone.

Approximately 200 picnic units will be located within the area primarily along the shoreline and in the tree covered drainages. Until landscaping has had a chance to mature to the shade producing stage it may become desirable to construct ramada shade structures for some sites.

In the easternmost drainage of the area a small inlet occurs creating the opportunity for a small wading lagoon. This type of development will no doubt require reshaping after each winter season. However, with a near level pool for most of the recreation season it should obtain considerable use, making the additional maintenance worthwhile.

Parking for 800 cars, softball fields, turfed play areas and riding and hiking trails are also planned for the area. 600 parking spaces will be paved with an additional 200 spaces being turf for overflow parking during heavy use periods. Landscaping will be required to soften the impact of the paved parking areas and to create landscape buffers.

ROCKY RIDGE AREA

The Rocky Ridge area is located on the southern side of the upstream basin opposite the Arroyo Mocho area and is one of the more scenic areas at Lake Del Valle. It contains a very desirable combination of vegetation, terrain, location and exposure for both day use and camping developments. Vegetation consists primarily of oak and digger pine, benefited by many north facing slopes. A series of flats ranging from near lake level to over 150 feet above the water surface of the lake offer a variety of development opportunities.

Proposed developments for this area include: a day use area with beach and picnic facilities, approximately 210 family campsites located in the eastern portion of the area (Digger Pine Flats) and 100 on three flats in the western portion, a group camp on a plateau behind the day use area and riding and hiking trails.

Access is from the Del Valle County Road by way of a bridge over the Arroyo Del Valle at the upper end of the lake. The old Arroyo county road goes below this bridge and through much of the area before dropping

into the reservoir. This road will be utilized for access to the eastern camping area and as a trail under the bridge to provide a connecting link between camping and day use facilities.

1. Day Use Facilities

A major swimming and picnic development is proposed near the heart of the Rocky Ridge area on a site containing a desirable combination of slope and vegetative cover for this type of use. It will feature a beach with approximately 1,600 lineal ft. of water frontage at the high pool elevation of 704 feet. Approximately 110,000 sq. ft. will be sand, backed by a turfed promenade area of 90,000 sq. ft. Two paved plazas, one with a visitor services structure and a comfort station/dressing room facility and the other with a comfort station/dressing room facility, are located on the bluff immediately behind the beach. The elevated location of these plazas is to lessen potential flooding conditions mentioned earlier. Grading and shaping will be required to create the above water portion of the beach as well as the desirable 7% slope for the underwater portion. Sand will be imported and spread over the beach area.

A small beach with 300 lineal ft. of water frontage is proposed for an area to the west of the above mentioned beach. This beach area will have 1 comfort station, 20 picnic sites, walkways and landscaping and will be constructed in conjunction with the Rocky Ridge (west) camping development due to its proximity to that facility.

Immediately behind the beach is a large gently sloping area on which the picnicking, parking and turfed play areas will be located. Much of this area is open and grass covered with some areas of good tree cover. The tree covered areas will be supplemented by additional plantings to accommodate approximately 150 picnic units. Approximately 4.2 acres of turf will be installed for such uses as free play, blanket picnicking, sunbathing, etc. An access road and approximately 400 car parking spaces will be located near the back of this gently sloping shelf. Additional tree plantings will be installed in this area to create landscape buffers and to soften the impact of the paved parking area. An overflow parking area already exists near the bridge which crosses the Arroyo Del Valle. This area was created with excess spoil material from the county road construction.

2. Digger Pine Flats Campground

The first camping development to be constructed at Del Valle will be located in a large tree-studded flat of approximately 50 acres at the eastern or upper end of the project adjacent to the confluence of the high waterline and the Arroyo Del Valle streambed. The area is covered with several impressive digger pines and many oak and sycamore trees.

The main channel of the Arroyo Del Valle stream delineates two sides of the flat with a small bluff and Lake Del Valle forming the other sides. The flat is bisected by a secondary stream channel which contains water

until mid to late May. The presence of several other grass-filled channels across the upper portion of the flat suggests that the stream has changed course many times over the years.

The Recreation Plan published by the Department of Water Resources as Bulletin 117-2 designated this area as a golfing facility. The flat is capable of providing either a regulation 9-hole par 36 course or an 18 hole pitch and putt course. Additional information indicates it is doubtful that a golfing facility in this location would be successful economically in the foreseeable future. Since the flat is one of the more developable and accessible areas at Lake Del Valle the camping potential should be given first priority. If at a future time a golfing facility is proven feasible it might then be considered.

The flat is capable of handling approximately 110 campsites which will be developed to State Park Class A standards with surfaced roads, flush toilets, hot showers, piped drinking water and campsites with table and stove. Access to the site is from the new county road which parallels its southern side.

A campfire center capable of seating 200 persons will be located near the western end of the campground. This site affords good access, good relationship to lake, close proximity to a restroom facility and pleasant environs.

3. Rocky Ridge Campground

Near the western end of the Rocky Ridge area there exists a series of three shelves that are flat to gently sloping. Two of these areas are separated from the lake by steep hillsides while the third and largest slopes up at a 7% to 8% grade from the conservation pool elevation of 704 feet to an elevation of approximately 800 feet. All three areas contain good oak tree cover although in some places plantings to supplement existing material would be desirable.

Access is a major consideration in the development of this area. Two drainages must be crossed and bridges are recommended due to possible scarring of their steep side slopes. Wood timbers and rocks indigenous to the area should be incorporated into the bridge design. Since this access will serve only one area a low speed narrow road will be adequa

The Department of Water Resources Bulletin 117-2 suggested that a bo facility and an equestrian facility be developed in this area. Sin boating facility should handle the boating needs at Lake Del Valle boating facility was eliminated. The equestrian facility was re to the Cedar Mountain area for three prime reasons: (a) the tr flats of the Rocky Ridge area are more adaptable to camping wi wide open flats of the Cedar Mountain area are better suited tion of riding arenas, stables, rental barns, etc.; (b) to downwind location for stables, corrals, etc., from other r

areas, and (c) increased traffic demands of an equestrian center would require a wider more sophisticated access road and, therefore, one which would do more damage to the area through which it passes.

This study proposes development of a camping facility for the area equipped with improved roads, chemical toilets, piped drinking water and sites with table and stove. An interesting campground layout is made possible due to changing levels, thus diminishing the visual impact of 100 campsites upon the area. Most sites have views of the lake with many having spectacular views of the surrounding countryside from vantage points nearly 100 feet above the lake.

An alternate use for the area is group camping if the demand for that kind of camping becomes greater.

4. Rocky Ridge Group Camp

A group camp area will be located approximately 800 feet from the lake on an elevated grassy plateau behind the day use area. The site is isolated from other use areas by topography and vegetation making it well suited for group camp use.

Access to the area is provided by an existing fire road. This road is too steep for conventional automobiles to negotiate, thus limiting its use to foot traffic or four-wheel drive vehicles. Automobile parking for people using the area is supplied by the nearby day use parking area. Access from the riding and hiking trail which encircles the reservoir is also possible as it passes through the area.

The major portion of the plateau is a gently sloping grassy meadow. This meadow will be used as an assembly area and for free play activities. An occasional mowing of part of the meadow may be desirable.

The camping facility for 80 people will be located near the eastern end of the plateau where a small grouping of oaks provide good shade conditions. A structure providing water, cooking, eating area and a meeting place with protection from the elements will be provided. A comfort station will be provided a short distance away.

The close proximity by trail to the swimming facilities in the day use area is a desirable feature of the area.

CEDAR MOUNTAIN AREA

The Cedar Mountain area is located at the upper end of Lake Del Valle along the eastern boundary of the Del Valle project. The area has a number of flat developable grass covered shelves, most of which have sparse tree cover.

Access is from the relocated Del Valle County Road which passes through the area. An existing dirt road also passes through part of the area providing access to the county road for private property owners to the east of the park. This road will be retained for this purpose as well as to provide access to recreation and administrative developments. It will be paved from the county road to the equestrian center and the administrative facility. The remainder of the road which is located within the park property will be maintained approximately as is, with only necessary minor improvements.

Proposed developments for the area include an administrative center, an equestrian center, group camps and the water and sewage treatment facilities.

1. Administrative Center

A shelf located adjacent to and on the eastern side of the county road will be the site of the park administrative center. The site affords excellent visual surveillance of the upper basin of Lake Del Valle from a vantage point 140 feet above the lake. The site is also centrally located between the major activity areas of the Arroyo Mocho and Rocky Ridge areas.

Facilities to be provided will include: a park office, a paved service area, 1 maintenance building, 1 metal storage building, gasoline dispensing facility, water and sewage treatment facilities and a park residence. Some landscape plantings will be required to create buffers and to enhance the appearance of the area.

2. Equestrian Center

An equestrian center will be located on a large grass covered flat on the eastern side of the county road north of and 100 feet in elevation above the upper end of Lake Del Valle. Access from the county road is supplied by the road serving adjacent property owners. The center will provide equestrian facilities such as horse rentals, pony rides for children, horse boarding barns, riding arena, parking area and riding and hiking trails for park users.

Those activities such as horse rentals and pony rides will receive more frequent public use and will, therefore, be located near the front entrance. Boarding barns will be located near the back of the area providing more privacy and protection for those housing their horses here. The central portion of the area will be devoted to a show arena and a holding corral. Bleachers, a comfort station and a temporary snack bar will be located next to the show arena for rodeos or horseshows that would take place there. Approximately 170 car parking spaces will be provided for those using the equestrian center facilities. The equestrian center is an integral part of the riding and hiking trail which encircles Lake Del Valle.

A flat which overlooks the equestrian center from a hilltop to the east will supplement the needs of the center. A pleasant aura is created on this hilltop from cooling breezes blowing off of the lake as well as from clusters of shade producing oak trees. The site will be developed as an equestrian camp and assembly area including such facilities as a corral, hitching rails, a comfort station, a barbeque pit and eating tables. Access is afforded from the road serving adjacent property owners as it passes along one side of the flat.

3. Cedar Mountain Group Camp

The Cedar Mountain group camping facility is located on the eastern side of the Del Valle county road on a high plateau 250 to 280 feet above the surface of the lake. The site overlooks the upper basin of Lake Del Valle yielding wonderful vistas of the area.

An access road to the site will be constructed from the road serving adjacent property owners. It will be a narrow road with very few improvements because of infrequent vehicular use.

Three separate camping areas with capacities ranging from 70 to 110 persons and a combined capacity of 280 persons will be provided. Each camping area will be equipped with a small parking area, a comfort station and a structure containing piped water, cooking and eating facilities.

Additional facilities which will be used jointly by all three camps include a campfire center and a play field/assembly area. The campfire center will seat 300 persons and be located in a small draw above the camping area. The configuration of this site is a natural for this type of facility. The play field will be located in an open meadow-like area which is approximately 200 feet by 350 feet in size. This area will be irrigated and mowed. Swimming facilities at either the Arroyo Mocho or the Rocky Ridge area are approximately a one mile hike away from the camp.

The camping facilities can be developed satisfactorily without altering the landscape, although some tree planting and minor grading will be desirable.

THE VENADOS AREA

The Venados area is located near the mid-point and on the northern shore of the reservoir. The terrain is generally quite steep, although a series of flat developable areas exist. The ridge tops and south facing slopes are generally grass covered with sparse stands of oak. Thicker oak cover exists in the drainages, especially those where the configuration provides relief from the hot southern exposure.

Access will be provided by boat, launch or riding and hiking trails as major road building is not feasible. Boat docks to facilitate launch access will be provided in two areas. Service vehicles or fire fighting equipment will gain access on the trail system.

Proposed developments for the area include a day use area with beach and picnic facilities, an equestrian camp and 50 primitive family camps.

1. Day Use Facilities

The largest place in the Venados area with developable terrain is a gently sloping shelf midway between the middle and upper basins of the lake. A swimming and picnic development is proposed for this area which will be unique in comparison to the other day use areas on the lake. Its unique feature is the lack of vehicular access. The complete tranquility of being isolated that many people desire will not be possible just by eliminating the intrusion of the automobile, but it is a giant step in this direction.

Most users of the area will gain access from the Arroyo Mocho boat ramp facility approximately 1-half mile to the east. Three forms of access possible are: a 3/4 mile hike along the riding and hiking trails, private boat or motor launch. A docking facility will be provided and will be a regular stopping place for the motor launch.

The beach will have an area of approximatly 30,000 sq. ft. and a water frontage of 600 lineal feet and will be capable of handling 370 people (80 sq. ft. per person) at the high conservation pool elevation of 704 feet. The beach will be graded at a 7-1/2% slope to a low elevation of 692 and sand imported to cover the area to a depth of 12 inches. Lake drawdown for other operation purposes will make this beach unusable from mid-September to mid-May.

A pathway will run the length of the beach tying into the riding and hiking trail and paths to the nearby picnic facilities. Facilities will include: 60 picnic sites; a turfed area of approximately 2 acres for sunbathing, blanket picnicking, etc.; a combination comfort station-dressing room and a comfort station; and a small corral for horsemen using the area.

Tree planting will be required to supplement what few trees presently exist in the area.

2. Equestrian Camp

An equestrian camp for 50 people will be developed on a small plateau about 50 feet above the water surface and just east of the middle basin of the lake. The slope between the plateau and the lake is very steep, and isolates the area from lakeside activities but affords a vantage point from which it is possible to enjoy the scenery of the lake. Access is provided by the riding and hiking trail which passes through the area.

The camp consists of three areas; the sleeping area for sleeping bags and small tents in a group of small oaks, a central eating area overlooking the lake, and a small corral. A comfort station in the form of either chemical or vault toilets will be provided as well as piped water to the eating area and the corral.

3. Venados Primitive Campground

The Venados primitive camping development is on the northern shore of the middle basin of Lake Del Valle. Generally, this area is quite steep though places exist along the shoreline and on a peninsula that have developable lands capable of handling about 50 primitive type campsites. Some oak tree cover exists, predominately on the peninsula.

Access to the area is provided by the riding and hiking trail, private boats and the motor launch. A docking facility will be provided and will become a regular stop for the motor launch.

The Recreation Plan published as D.W.R. Bulletin 117-2 designated this area as the site for the boating facilities. As mentioned earlier, these facilities were moved to the Arroyo Mocho area due to easier and less costly access, and an improved operating schedule for water releases from Lake Del Valle.

A beach area will be developed for the campers swimming pleasure. It will be a gravel beach since it will be steeper (10% slope) than what is desirable for sand beaches. Gravel beaches tend to lessen beach erosion problems.

The developable terrain is generally confined to three places thus breaking the 50 campsites into areas of 20 units, 11 units and 19 units. Each area will be provided with a comfort station (chemical toilets) and a water supply. All 50 campsites will be equipped with a table and a stove.

Grading requirements are minimal and are required only for shaping the beach area, campsite pads and camp trails. Due to the lack of vegetative cover over much of the area, a tree planting program will be required to make the area more desirable for camping.

ARDILLA, CONEJO, MENDENHALL, AND PUNTA VACA AREAS

The basic concept for the development of the Ardilla, Conejo, Mendenhall and Punta Vaca areas is to retain their natural and unspoiled beauty. They will be used to best advantage as primitive picnic or camp areas with man-made structures such as roads, overhead power lines, etc., being excluded from the area.

Access will be afforded by boat or by a riding and hiking trail which will encircle the lake. The width of this trail will be restricted to 3 feet in several places, due to steep terrain. Extreme care will be used in trail construction to prevent any tree loss and to minimize cut and fill banks.

Developable areas are small and isolated but slope and tree cover make those that exist desirable to people cruising the shoreline or using the trails in search of solitude and scenic attractiveness. Five areas, one each in the Ardilla, Conejo and Punta Vaca areas and two in the Mendenhall area, are capable of handling small developments. Each area provides easy access to and from the lake with three of the areas containing a suitable area for a small beach. Tables will be provided at all five sites ranging from 8 at the smallest to 20 at the largest. Due to extreme fire hazard during the summer months, fires will be restricted to specific sites, thus requiring 4 or 6 parties to use one stove.

The Conejo and Mendenhall areas contain high promontories from which there are magnificent views of the reservoir and surrounding countryside. These sites will be developed as vista points with access from the riding and hiking trail. The Conejo site was considered at one time to be developed as the overlook for the Del Valle Dam construction. This site provides vistas of not only the reservoir lands, but also of the downstream Arroyo del Valle and Livermore Valley areas.

RIDING AND HIKING TRAILS

The concept of retaining much of the Lake Del Valle State Recreation Area project lands in a near virginal state makes it a natural for the development of riding and hiking trails. A trail system of nearly 22 miles will completely encircle the lake with spur trails providing connecting links from all developed areas. Some of these trails already exist as fire roads or ranch roads constructed by the former owner. Those trails to be constructed will generally be of sufficient width to permit service vehicles and fire fighting equipment to use them. However, due to the steep terrain in certain areas, some sections of the trail will have a maximum width of 3 feet.

The trails will travel to and through areas of aesthetic interest with an attempt to take advantage of long vistas whenever possible. Three areas, one each in the Venados, Mendenhall and Conejo areas, are designated as vista points. Three areas are on high promontories which afford scenic vistas and are of sufficient size to permit small groups to stop, rest, and enjoy the view.

Future trail connections to other nearby areas are being considered. One extension could go from the vicinity of Del Valle Dam downstream along the Arroyo Del Valle to the Shadow Cliffs Regional Parks with connection to the cities of Livermore and Pleasanton. Another possible extension is up over Rocky Ridge on the southern side of Lake Del Valle and into the San Francisco Water District lands and Sunol Valley Regional Park. The Shadow Cliffs and Sunol Valley Regional Park are both units of the East Bay Regional Park District, the agency which will also operate the recreation facilities at Lake Del Valle State Recreation Area.

CONCESSIONS

Concession development will augment the facilities provided by the State and the EBRPD. They include:

Arroyo Mocho Area

1. Marina equipped with approximately 60 boat berths, rental boats, fueling station, bait shop, and snack bar. Will include an on-shore service and storage area and a boating center building.

2. Beach concession to include a snack bar and beach equipment rental.

Rocky Ridge Area

1. Beach concession to include snack bar and beach equipment rental.

Cedar Mountain Area

1. An equestrian center including boarding and rental barns, pony rides, tack room, riding arenas, corral, parking, etc.

Other

1. Launch concession to include camper, picnic and fishing supplies for boat-in and hike-in areas.

2. Mobile concession vehicle with camper supplies and also to supplement permanent facilities during high park visitation periods or for special events such as rodeos at the equestrian center.

These services make it possible for the park visitor to remain within the park environment throughout his visit and to minimize traffic in and out of the park.

UTILITIES

To develop the desired recreation features at Lake Del Valle, utility services consisting of electrical, water, sewerage, telephone and gas will be required.

1. Electrical and telephone

Electrical and telephone service to adjacent property owners to the east of the park already exist. Extension of these services into the park will not be difficult. Pacific Gas and Electric has indicated that they will supply 480 volt 3 phase service to a designated point within the park at no cost to the State. Beyond this point the lines will be run in underground ducts to eliminate their intrusion upon the natural environment.

2. Water

Three alternatives have been considered as a source of water:

a. Build a plant and treat South Bay aqueduct water from the reservoir.

b. Install wells and treat water as needed.

c. Obtain supply from Hetch Hetchy aqueduct.

The first alternative seems to be the most logical. A source (the lake) is already available through the allocation of water for recreation needs. Construction of an intake structure treatment plant and storage facilities will be required. A feasibility study is being made to determine the best method to implement this alternative; i.e., single intake-single system, multiple intake-single system, single intake-dual system or multiple intake-dual system.

The second alternative has been studied. However, since there are very few wells in the area which give satisfactory service, it follows that the quantities of water obtainable from this source may be limited.

The third alternative of obtaining water from the Hetch Hetchy aqueduct has been discarded. Contacts in 1962 with the San Francisco Water District, the owners of the Hetch Hetchy, indicated that they looked unfavorably upon cross-connections to the aqueduct. They also pointed out that Del Valle Reservoir is outside of the San Francisco Water District's service area.

3. Sewerage

Five alternatives for sewerage were considered:

a. Export all raw sewage or treated effluent to existing treatment plant at Livermore. (Two routes were studied.)

b. Septic tank and leach fields.

c. Raw sewage lagoons and evaporation ponds.

d. Treatment plant on state property with export to adjacent property for irrigation of grazing areas.

e. On-site treatment with extended aeration plant.

The first alternative would be the most expensive. A sewage collection system to a centrally located pumping facility within the park as well as a lengthy sewer main and possibly additional pumping stations between the park and the City of Livermore would be required. It is anticipated that there would be some local opposition to this alternative.

Alternate No. 2, septic tank system, is not acceptable to the Regional Water Quality Control Board or Alameda County Health Department because of possible bacteriological problems in the reservoir. Leached septic tank effluent would probably carry most of its nitrogen content into the reservoir since soil generally does not remove the nitrogen from sewage.

The quantity of sewage anticipated at Lake Del Valle State Recreation Area would require approximately 15 acres of evaporation ponds should Alternate No. 3 be pursued. The slopes around Lake Del Valle are quite steep and to develop an area of this size would require extensive earth moving and high cost. An area of this size would also be difficult to conceal and therefore have a considerable visual impact upon the area.

A treatment plant on State property with export of effluent to adjacent property has some merit. However, easements, maintenance and additional construction cost across private properties as well as time required for negotiations with property owners are drawbacks to this alternative.

Alternate No. 5 is the least expensive of all methods studied. The green belt created from this form of irrigation disposal would enhance an otherwise barren area and provide a fire break along one boundary of the park. The irrigation rate would be such that no runoff would be created with only enough water for plant growth. Also, nearly all nutrients in the irrigated effluent would be used for plant growth, thereby locking them up in the biological chain. Sludge from the plant would be trucked to a disposal site outside of the basin. This method of disposal would prevent any appreciable increase in nutrients in the reservoir and is the alternative recommended for use at Lake Del Valle State Recreation Area.

4. Gas

Gas requirements will be supplied by the use of Liquid Petroleum Gas. L.P.G. storage tanks will be screened and inconspicuously located with a concealed distribution system.

SPECIAL CONSIDERATIONS

Operation Schedule

The Department of Water Resources has established that Lake Del Valle can be operated until approximately 1985 in such a manner that the maximum conservation pool of 40,000 acre feet (elevation - 704 feet) will be attained by June 1st of each year. This storage, less surface evaporation of approximately 2 feet, will be retained through Labor Day. After Labor Day storage will be reduced to 20,000 acre feet (elevation of 668 feet) by about mid-November. This provides a nearly stable pool of water over much of the recreation season.

After 1985, the Department of Water Resources will reexamine the operation schedule for the lake to make it consistent with the needs of all project demands at that time. The Department of Parks and Recreation will have to keep informed during this reexamination process to make sure that the 51% of the total benefits at this reservoir that have been allocated to recreation can be realized.

The Hetch Hetchy Aqueduct

The Hetch Hetchy Aqueduct crosses beneath Lake Del Valle. This aqueduct which originates in the Sierra's in Yosemite National Park is owned by the San Francisco Water District (SFWD). It helps meet the water needs for the City of San Francisco and was built around 1930.

Prior to the construction of Del Valle Dam and the subsequent filling of Lake Del Valle there was a service adit known as the Valle Shaft on land now inundated by the lake. This shaft was plugged by the Department of Water Resources during construction of the dam. DWR agreed to provide SFWD with a new site for a service adit in the event a new aqueduct tunnel is constructed. The DWR has also provided a spoil site for tunnel excavated material.

This construction could affect both the environmental quality and the recreational desirability of the area. Therefore, the Department of Parks and Recreation must keep informed and have a voice in the plans of the SFWD facilities expansion in this area.

Del Valle Advisory Committee

The East Bay Regional Park District has created an advisory committee of local citizens interested in the quality of recreational developments at Lake Del Valle. The committee is made up of people with varied interests. Their duty is to appraise EBRPD of the interests and desires of the local citizenry in regards to the operation and development of Lake Del Valle.

Del Valle Committee (Quiet Lake Group)

A number of Livermore citizens very concerned with the development of Lake Del Valle have formed a group known as "The Del Valle Committee on the Development of the Del Valle Reservoir and Recreation Area." Their biggest concern has been that this project be developed compatibly with the environment of the area. The State is also concerned with this problem and has considered it in planning the Lake Del Valle recreation facilities. The State is concerned as well with the needs of all recreationists that will be using Lake Del Valle.

One of this group's major efforts has been to promote a "Quiet Lake Petition" in an effort to ban all power boats and off-road vehicles at Del Valle. Their concerns for this effort are noise pollution, erosion, safety, water pollution and enforcement.

Entrance Station

EBRPD is negotiating with Alameda County to acquire control of the portion of Del Valle Road which passes through the project lands. This would make it possible to provide one entrance station which will control all access to the recreation area. Present plans would require a minimum of three entrance stations.

Del Valle Road is a public road and several local property owners use this road as the only means of access to their properties. However, EBRPD has contacted a number of these owners who have indicated that they would not be adverse to this situation as long as they have reasonable access to their lands.

Regulations for Boating Use

Due to the configuration of Lake Del Valle as well as possible conflicting uses, regulations governing the use of its water surface will be desirable. Various types of regulations such as speed limits, motor size limitations, restricting boating to certain areas or restricting various types of boating activities to certain time periods.

The State imposed temporary regulations at Lake Del Valle when it was opened to the Public on April 1, 1970. Section 4550.1 of the California Administrative Code states that: a. No person shall operate a power boat (on Lake Del Valle) in excess of 10 miles an hour; and b. No person shall waterski, provided that the District Superintendent may authorize the same in connection with a special event.

COST OF FULL DEVELOPMENT

The total cost of development of the Del Valle Reservoir State Recreation Area is $4,300,000.* The price of equipment and materials now being used to operate the unit are not included (exclusive of the boating facility) as some initial facilities were provided by the East Bay Regional Park District.

*This figure is a preliminary estimate by the Department of Parks and Recreation based on General Development level planning studies. It represents current 1971 price levels. Additional detailed planning and design by Parks and Recreation and cost estimating by the Department of General Services, Office of Architecture and Construction, will result in more accurate cost estimates for individual capital outlay projects staged from the General Development Plan.

FACILITIES SUMMARY

Type of Facility

Day Use

Picnic Units - Arroyo Mocho Area	200 units
Picnic Units - Rocky Ridge Area	170 units
Picnic Units - Venados Area	60 units
Picnic Units - Ardilla Area	20 units
Sand Swimming Beach - Arroyo Mocho Area	900 l.f.
Sand Swimming Beach - Rocky Ridge Area	1,900 l.f.
Sand Swimming Beach - Venados Area	600 l.f.
Gravel Swimming Beach - Ardilla Area	200 l.f.
Picnic and Beach Parking - Arroyo Mocho Area	800 spaces
Picnic and Beach Parking - Rocky Ridge Area	400 spaces
Equestrian Center	1
Equestrian Assembly Area	1
Riding and Hiking Trails	21.4 miles
Vista Points - Venados, Mendenhall and Conejo Areas	3

Boating Use

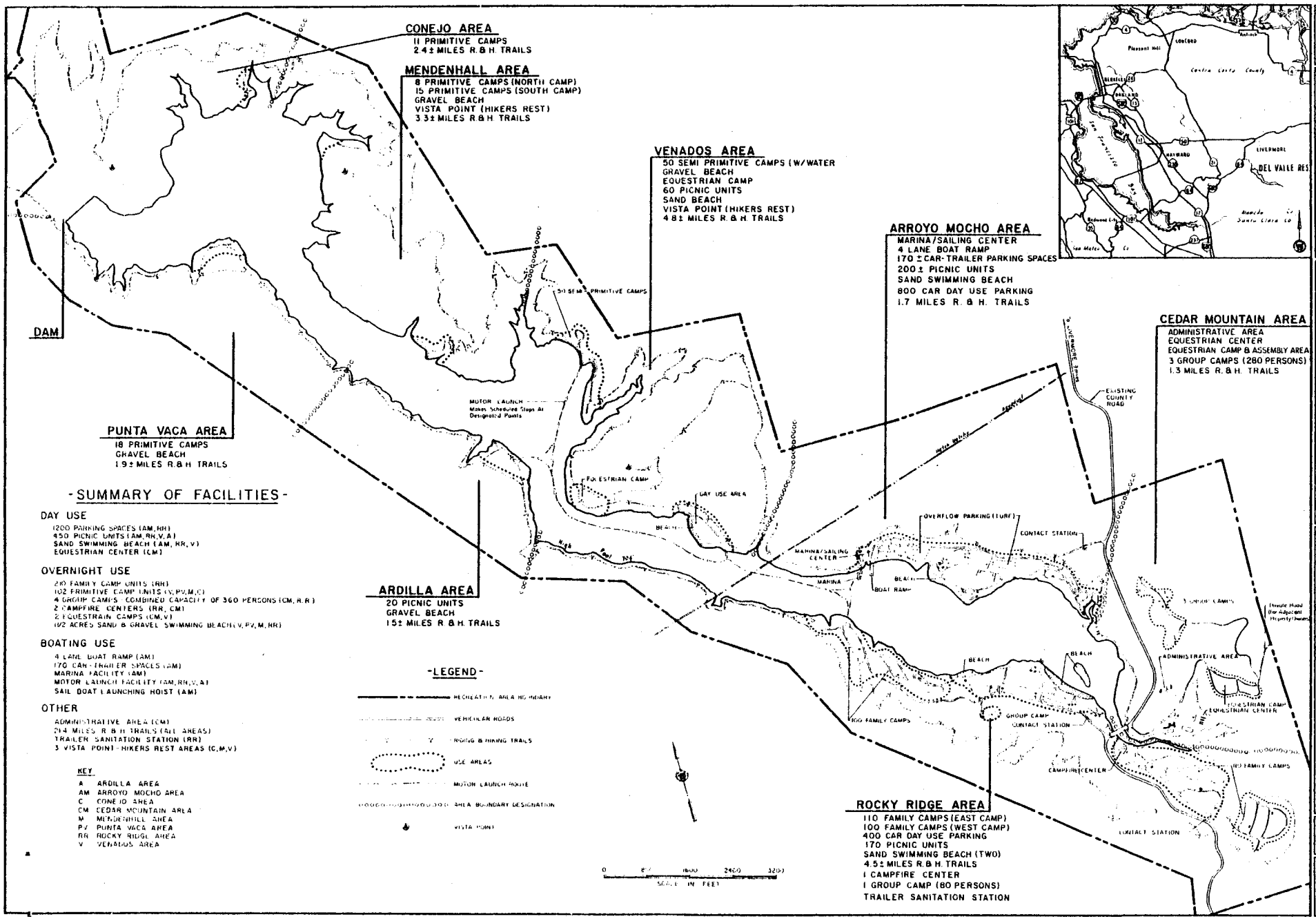
Boat Launching Ramp (Arroyo Mocho Area)	4 lanes
Sail Boat Launching Hoist (Arroyo Mocho Area)	1
Courtesy Dock (Arroyo Mocho Area)	2
Car/Trailer Parking (Arroyo Mocho Area)	170 spaces
Marina/Sailing Center (Arroyo Mocho Area)	1
Small Docking Facility (Rocky Ridge Area)	1
Motor Launch Facility	1
Courtesy Docks (Downlake Areas)	5

Overnight Use

Family Campsites - Rocky Ridge Area	210 units
Primitive Camp Units - Venados Area	50 units
Primitive Camp Units - Mendenhall Area	23 units
Primitive Camp Units - Conejo Area	11 units
Primitive Camp Units - Punta Vaca Area	18 units
Group Camps - Cedar Mountain Area (280 persons)	3 camps
Group Camp - Rocky Ridge Area (80 persons)	1 camp
Equestrian Camp - Cedar Mountain and Venados Areas	2 camps
Gravel Swimming Beach - Rocky Ridge, Punta Vaca, Mendenhall and Venados Areas	1,400 l.f.

Administrative

Administrative and Service Area - Cedar Mt. Area	1
Contact Stations	3


CONEJO AREA
11 PRIMITIVE CAMPS
2.4± MILES R.&H. TRAILS
MENDENHALL AREA
8 PRIMITIVE CAMPS (NORTH CAMP)
15 PRIMITIVE CAMPS (SOUTH CAMP)
GRAVEL BEACH
VISTA POINT (HIKERS REST)
3.3± MILES R.&H. TRAILS
VENADOS AREA
50 SEMI PRIMITIVE CAMPS (W/WATER
GRAVEL BEACH
EQUESTRIAN CAMP
60 PICNIC UNITS
SAND BEACH
VISTA POINT (HIKERS REST)
4.8± MILES R.&H. TRAILS
ARROYO MOCHO AREA
MARINA/SAILING CENTER
4 LANE BOAT RAMP
170 ± CAR-TRAILER PARKING SPACES
200 ± PICNIC UNITS
SAND SWIMMING BEACH
800 CAR DAY USE PARKING
1.7 MILES R.&H. TRAILS
CEDAR MOUNTAIN AREA
ADMINISTRATIVE AREA
EQUESTRIAN CENTER
EQUESTRIAN CAMP & ASSEMBLY AREA
3 GROUP CAMPS (280 PERSONS)
1.3 MILES R.&H. TRAILS
DAM
PUNTA VACA AREA
18 PRIMITIVE CAMPS
GRAVEL BEACH
1.9± MILES R.&H. TRAILS
ARDILLA AREA
20 PICNIC UNITS
GRAVEL BEACH
1.5± MILES R.&H. TRAILS
ROCKY RIDGE AREA
110 FAMILY CAMPS (EAST CAMP)
100 FAMILY CAMPS (WEST CAMP)
400 CAR DAY USE PARKING
170 PICNIC UNITS
SAND SWIMMING BEACH (TWO)
4.5± MILES R.&H. TRAILS
1 CAMPFIRE CENTER
1 GROUP CAMP (80 PERSONS)
TRAILER SANITATION STATION
50 SEMI PRIMITIVE CAMPS
MOTOR LAUNCH
Makes Scheduled Stops At Designated Points
EQUESTRIAN CAMP
DAY USE AREA
BEACH
MARINA/SAILING CENTER
MARINA
BOAT RAMP
OVERFLOW PARKING (TURF)
CONTACT STATION
EXISTING COUNTY ROAD
ADMINISTRATIVE AREA
3 GROUP CAMPS
(Private Road For Adjacent Property Owners)
EQUESTRIAN CAMP
EQUESTRIAN CENTER
100 FAMILY CAMPS
GROUP CAMP
CONTACT STATION
CAMPFIRE CENTER
110 FAMILY CAMPS
CONTACT STATION
DEL VALLE RES
LIVERMORE
HAYWARD
OAKLAND
Pleasant Hill
Concord
Antioch
Contra Costa County
Alameda County
San Francisco
San Mateo Co.
Redwood City
-SUMMARY OF FACILITIES-
DAY USE
1200 PARKING SPACES (AM,RR)
450 PICNIC UNITS (AM,RR,V,A)
SAND SWIMMING BEACH (AM, RR, V)
EQUESTRIAN CENTER (CM)
OVERNIGHT USE
210 FAMILY CAMP UNITS (RR)
102 PRIMITIVE CAMP UNITS (V,PV,M,C)
4 GROUP CAMPS - COMBINED CAPACITY OF 360 PERSONS (CM, R.R.)
2 CAMPFIRE CENTERS (RR, CM)
2 EQUESTRIAN CAMPS (CM,V)
102 ACRES SAND & GRAVEL SWIMMING BEACH (V, PV, M, RR)
BOATING USE
4 LANE BOAT RAMP (AM)
170 CAR-TRAILER SPACES (AM)
MARINA FACILITY (AM)
MOTOR LAUNCH FACILITY (AM, RR, V, A)
SAIL BOAT LAUNCHING HOIST (AM)
OTHER
ADMINISTRATIVE AREA (CM)
21.4 MILES R.&H. TRAILS (ALL AREAS)
TRAILER SANITATION STATION (RR)
3 VISTA POINT-HIKERS REST AREAS (C,M,V)
KEY
A ARDILLA AREA
AM ARROYO MOCHO AREA
C CONEJO AREA
CM CEDAR MOUNTAIN AREA
M MENDENHALL AREA
PV PUNTA VACA AREA
RR ROCKY RIDGE AREA
V VENADOS AREA
-LEGEND-
RECREATION AREA BOUNDARY
VEHICULAR ROADS
RIDING & HIKING TRAILS
USE AREAS
MOTOR LAUNCH ROUTE
AREA BOUNDARY DESIGNATION
VISTA POINT
0
800
1600
2400
3200
SCALE IN FEET
DESIGNED
DRAWN
CHECKED
DATE
REVISIONS
REVISION
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
APPROVED
DATE
LAKE DEL VALLE
GENERAL DEVELOPMENT PLAN
DRAWING NO
11472
SHEET NO
1
OF
1

APPENDIX A

Development Cost Estimates
(by stages)

Features		Cost
Stage I (Existing)		
A.	Boating Facility (4 lane launch ramp and 193 car/trailer parking)	$190,000
	Stage I Total	$190,000
Stage II (1971-72 F.Y.)		
A.	Utilities (Sewer, Water and Electric)	$320,000
B.	Arroyo Mocho Day Use Development	450,000
C.	Rocky Ridge Day Use Development	110,000
D.	Rocky Ridge Camping Development (East Area)	260,000
E.	Venados Day Use Development	60,000
	Stage II Total	$1,000,000
Stage III (1972-73 F.Y.)		
A.	Continuing Utilities Development	$250,000
B.	Administrative and Service Area	100,000
C.	Continuing Development - Rocky Ridge Day Use	600,000
D.	Continuing Development - Rocky Ridge Camping (Campfire Center)	50,000
	Stage III Total	$1,000,000
Stage IV (1973-74 F.Y.)		
A.	Continuing Development - Rocky Ridge Camping	$250,000
B.	Equestrian Center	100,000
C.	Trail Development - Downlake Areas	30,000
D.	Rocky Ridge Group Camp	50,000
E.	Venados Primitive Camp	70,000
	Stage IV Total	$500,000
Stage V (Future by E.B.R.P.D)		
A.	Rocky Ridge Camping Development (West Area)	$240,000
B.	Ardilla Boat-in Day Use Area	60,000
C.	Continuing Development - Venados Day Use Area	80,000
D.	Mendenhall Primitive Camping	60,000
E.	Cedar Mountain Group Camps	120,000
F.	Conejo Primitive Camp	15,000
G.	Venados Equestrian Camp	15,000
H.	Cedar Mountain Equestrian Camp	20,000
I.	Continuing Devel. - Arroyo Mocho Day Use	150,000
J.	Punta Vaca Primitive Camp	50,000
K.	Continuing Devel. - Venados Primitive Camp	30,000
L.	Continuing Devel. - Rocky Ridge Day Use	70,000
	Stage V Total	$910,000
	TOTAL DEVELOPMENT COST (All 5 Stages)	$4,300,000

Stages I, II, III & IV by State of California
Stage V by Recreation Operator (E.B.R.P.D.)

A P P E N D I X B

Staging of Development

Stage I (Existing)

A. Boating Facility (Arroyo Mocho Area)

The boating facility consists of a four lane boat launching ramp, 170 car/trailer parking area, a courtesy boat dock, chemical toilets and a water supply.

Stage II (1971-72 F.Y.)

A. Utilities

A sewage treatment plant and disposal system, water treatment plant and storage facilities, electrical service, telephone service and liquid petroleum will be installed to initial development areas with main lines being sized for future development.

B. Arroyo Mocho Day Use Development

This development to include 4,000 lineal feet of access road, a contact station, 600 car parking, sand swimming beach, 2 comfort station-dressing rooms, sail boat launching facility, 150 picnic units, grading and drainage, landscaping, irrigation and 8,800 lineal feet of trails.

C. Rocky Ridge Day Use Development

This development to include a contact station, 1,000 lineal feet of access road, 100 car parking, grading drainage and 20,000 lineal feet of trails.

D. Rocky Ridge Camping Development

Development of the eastern camping area or Digger Pine Flats Area with a contact station, 6,200 lineal feet of access road, 65 camp spurs, 3 combination buildings, a trailer sanitation station, grading and drainage and landscaping.

E. Venados Day Use Development

Development of a swimming beach, boat dock and 15,200 lineal feet of trails.

Stage III (1972-73 F.Y.)

A. Continuing Utilities Development

Extension of utilities service.

B. Administrative and Service Area (Cedar Mt. Area)

Includes a park office, a paved service area, a park security residence, maintenance building, metal storage building, gasoline dispensing facility, grading and drainage and landscaping.

C. Continuing Development - Rocky Ridge Day Use

This continuing development to include an additional 300 car parking, swimming beach, 2 comfort station-dressing rooms, 1 comfort station, 1 visitor services building, small docking facility, 150 picnic units, landscaping, grading and drainage, irrigation, and 5300 L.F. of walkways.

D. Continuing Development - Rocky Ridge Camping Development

This development provides a campfire center with a seating capacity of 200 persons.

Stage IV (1973-74 F.Y.)

A. Continuing Development - Rocky Ridge Camping

Continuing development of the Digger Pine Flats camping area with an additional 4,600 lineal feet of access road, 45 camp spurs, 2 combination buildings, grading and drainage and landscaping.

B. Equestrian Center (Cedar Mountain Area)

Participation with a concessionaire to provide an equestrian facility with horse rental facilities, pony rides, boarding barns, show arena with bleachers and comfort station, working arena, corral, 170 car parking area, landscaping and drainage.

C. Trail Development - Downlake Areas

Development of 60,000 lineal feet of trails and 3 trail side vista points.

D. Rocky Ridge Group Camp

Development of 800 lineal feet of gravel access road (10' width), 1 cooking/eating structure, comfort station, water supply, grading and landscaping.

E. Venados Primitive Camping Development

This primitive camping facility to include a gravel beach, 30 camp sites, chemical toilets, water supply and landscaping.

Stage V (Future by E.B.R.P.D.)

A. Rocky Ridge Camping Development (West Area)

Development of western Rocky Ridge camping area to include 8,000 lineal feet of access road, 100 camp spurs, 5 comfort stations, landscaping, and grading and drainage.

B. Ardilla Boat-in Day Use Area

Development of 20 picnic sites, gravel swimming beach, boat dock and chemical toilets.

C. Continuing Development - Venados Day Use

Continuing development of this area will include a comfort station-dressing room, comfort station, small corral, and landscaping.

D. Mendenhall Primitive Camping

Development of two primitive camp areas; one with 8 camp sites and chemical toilets and the other with 15 camp sites, chemical toilets, boat dock and a gravel swimming beach.

E. Cedar Mountain Group Camps

Development to include 4,000 lineal feet of gravel access road (10 feet width), camp fire center, 3 cooking/eating structures, chemical toilets, water supply, grading and landscaping.

F. Conejo Primitive Camp

To include 11 primitive camp sites, chemical toilets and landscaping.

G. Venados Equestrian Camp

Development to include a central eating and cooking facility, corral, water and chemical toilets.

H. Cedar Mountain Equestrian Camp

Development to include a central eating and cooking facility, corral, water and chemical toilets.

I. Continuing Development - Arroyo Mocho Day Use

Expansion of the Arroyo Day Use Area with an additional 200 car parking, 2 comfort stations, 50 picnic units, landscaping and grading and drainage.

J. Punta Vaca Primitive Camp

Development of 18 primitive type camp sites, gravel swimming beach, boat dock and chemical toilets.

K. Continuing Development - Venados Primitive Camp

Expansion of the Venados Primitive Camp with an additional 20 camp sites and landscaping.

L. Continuing Development - Rocky Ridge Day Use

Develop the small beach to the west of the major beach development with 300 lineal feet of beach, 1 comfort station, 20 picnic units, walkways and landscaping.