

SILVERWOOD LAKE STATE RECREATION AREA

GENERAL DEVELOPMENT PLAN

STATE OF CALIFORNIA – THE RESOURCES AGENCY
DEPARTMENT OF PARKS AND RECREATION

Memorandum

To : Mr. William Penn Mott, Jr.
Director

Date : March 25, 1970

Subject: General Development
Plans

From : Department of Parks and Recreation

I am transmitting to you copies of the General Development Plans that have been prepared in both narrative and graphic form in accordance with our new planning procedures for the following parks:

- Bolsa Chica State Beach
- Malibu Lagoon State Beach
- Old Sacramento State Historic Park
- Point Mugu State Recreation Area
- Silverwood Lake State Recreation Area

These are being forwarded to you for your review and approval so that we may report to the Legislature the completion of a number of General Development Plans. In your earlier review of the report for Point Mugu you indicated the need for detailed information regarding staffing, attendance and operation costs for each of the stages of development. This information is still being prepared by the Operations Division for the attached reports. When it is available, it will be added to these reports as an additional appendix, so that it will not in any alter the text of the report itself.

I am also including a letter for your signature indicating approval of the plans as a suggested method of formalizing the approval of these reports.

for Richard A. May
 James E. Warren, Chief
 Planning and Development Division

Attachments

BACKGROUND
 3 PAGES
 ON APPROVAL
 OF 1970
 GDP REPORT
 FOR
 SILVERWOOD
 LAKE

Mr. James E. Warren, Chief
Planning and Development Division

May 19, 1970

General Development Plans

Please refer to your letter of March 25 signed by Dick May, subject General Development Plans. I have reviewed the report and have the following comments to make:

1. Old Sacramento SHP: I do not feel that the report is as complete as it should be with regard to the historical information. More information should be provided to completely justify our development program as well as our interpretive program. Our development should be related to the urban renewal and comments made on their plan, etc. The report should give more emphasis than it now contains to the relationship of our projected urban renewal. The report does not go into the program that we have in mind relative to trains as a part of Old Sacramento. I think this should be given considerably more emphasis, and an inventory of the trains that are now available should be included in the report, as well as a more detailed description of what we intend to do insofar as the train display is concerned.

I suggest that you contact Denny Ampach, H.D., if you need additional information in order to give this particular phase of the Old Sacramento State Historic Park development the emphasis that I believe it should have.

I also feel that the report should include reproductions of the sketches which Bob Uta has showing the elevations of the various buildings and the street scenes so that people will have a better idea of the proposed rehabilitation and redevelopment of the area.

Lastly, I would like to suggest that the costs for development be shown in more detail. It would be desirable if we could show cost estimates building by building, rather than lump sum as now appears in the report.

2. Bolsa Chica State Beach: It seems to me that within the report there should be a brief discussion of the condition of the area when the state purchased this property. As I recall, the area was called "Tin Can Beach". We spent a considerable sum of money removing the tin cans and the quantity removed is a rather impressive figure. I would think that this ought to be a part of the report.

The cost figures should be in more detail. I believe we have this information. I find it difficult to adjust the beach attendance figures at Bolsa Chica with those at Malibu. I would think that the attendance at Bolsa Chica would be equal to that of Malibu. How did we develop figures that seem to indicate that Bolsa Chica would have less attendance? Also, the revenue figures for Bolsa Chica seem low to me. I wondered how they related to Huntington Beach, for example.

May 19, 1970

Shouldn't we also discuss the question of temporary development, particularly in view of the uncertainty of highway location, the development of the lands easterly of the existing highway, and the possibility of the sea water conversion plant, etc. It seems to me we should discuss the whole area in relationship to our planning and indicate why it is necessary that all of the planning in the area be integrated so that the development of the State beach refers to the private development and vice versa.

Page 11 - Paragraph entitled "Safety and Control". I would prefer that the sentence start out as follows: "A fence or suitable barricade for public safety . . ."

Page 13 - Paragraph entitled "Staging of Development". I would like to see the first sentence which discusses the need for total development of the area developed a little more fully rather than just making a simple statement. It seems to me that we could indicate that the opportunity for full development could take place provided the utilities, roads, and so forth were put in and certain other facilities built by the State with the balance of the facilities constructed by concession contracts. Nowhere in the report do I recall your mentioning this kind of opportunity and I think the report should cover this subject.

3. Malibu Lagoon State Beach: Construction cost breakdown should be in greater detail, more description of the house and its history and how we intend to use it. It seems to me that the report would be much more effective if there were photographs both of the exterior and interior of the house so that people could understand the significance of this particular building. Also, it seems to me greater emphasis should be placed on the history of this area and a more complete paragraph or section on this subject. Also, I think the revenue section needs to be given more attention. It doesn't seem to me that we really have estimated the total revenue potential of the development. It seems to me that on this controlled park area, with the intensity of use that we expect in this area, that we might very well have a 25¢ per person charge to come to the area, either for swimming or to go through the house. My feeling is that the revenue potential is much higher than you have indicated in the report. In other words, it seems to me that this park surely will operate on more revenue than the expenses for operation. I think that our figures ought to indicate this potential. Also, should we not discuss in the report the possibility of Los Angeles County taking on the responsibility of the lifeguarding in this area as a coordinated effort.

4. Silverwood Lake: I have no comments.

5. Point Mugu: I have no comments.



William Penn Hott, Jr.
Director

Mr. John H. Knight, Chief
Operations Division

August 25, 1972

Lake Silverwood
Plan Revisions

Plans for Lake Silverwood are now being revised to provide for the operation by our department. Previously the U. S. Forest Service was planning to operate Lake Silverwood.

We are now in the process of designing an administration facility for a revised location.

I am enclosing a print of the proposed revisions for the General Development Plan with the revision circled in red. These changes have been discussed with the District office and they believe them to be desirable.

Please reply promptly if you concur with the revisions shown so we can inform Department of Water Resources of our changed plans and get on with our development program. Please contact George Rackelmann if you desire additional information.

ORIGINAL SIGNED BY

JAMES E. WARREN

James E. Warren, Chief
Design and Development Division

Enclosure

JEW:GOR:lk

INFERRED
APPROVAL
BACKGROUND
FOR AMEND-
MENT 2
Circled Oct 1972

JRW *lk*

lk

November 28, 1972

Mr. Marshal J. Brecht
1510 S. Pomona Avenue, Apt. B12
Fullerton, California 92632

Dear Mr. Brecht:

The attached revised General Development Plan is in response to your request for information on the Silverwood Lake Recreation Development.

The estimated dates of completion for the facilities is as follows:

June 1973 - Sawpit Canyon day-use area and main access road (now under construction).

June 1974 - Cleghorn and Miller Canyon day-use areas.

June 1975 - Mesa and West Fork campgrounds.

To operate the completed development there will be resident facilities for seven full-time and twenty seasonal employees.

I hope the information herein covers all your questions. Thank you for your interest and good luck on your project.

Sincerely,

Respectfully signed by

H. Lee Warren

H. Lee Warren, Supervisor
Project Development Section

HLW:RWH:ejh
Attachment

SURNAME

Bob Hines 11/28

SILVERWOOD LAKE STATE RECREATION AREA

GENERAL DEVELOPMENT PLAN

Prepared By

MASTER PLANNING BRANCH

FEBRUARY 1970

Ronald Reagan
Governor
State of California

N. B. Livermore, Jr.
Secretary for Resources

William Penn Mott, Jr.
Director
Department of Parks and Recreation

James E. Warren
Chief
Planning and Development Division

This report is under the supervision of:

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by

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Additional Assistance

from

DEPARTMENT OF WATER RESOURCES
SAN BERNARDINO COUNTY PARK DEPARTMENT
UNITED STATES FOREST SERVICE

Re. SILVERWOOD LAKE SRA GENERAL DEVELOPMENT PLAN
Approved by Director William Penn Mott Jr. on May 19, 1970
Amendment 1 (Revision) approved by Mott circa Oct 1971
Amendment 2 (Revision) approved by Mott in Jun 1972

Note: The original 1970 General Development Plan report, and the first revision in 1971, are both obsolete. The second revision in 1972 includes all prior text, including deletions shown with strike-through text.

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SUMMARY

In Southern California demand for outdoor recreation opportunities is accelerating at a rate three times greater than the population increase. The provision of recreation facilities has not kept up with these recreation demands.

Silverwood Lake, one of four reservoirs proposed as part of the State Water Project in Southern California, will provide an opportunity to meet a portion of the water associated recreation facilities deficiency in Southern California. Boating will be among the most popular uses of the lake. With a lake of only 995 surface acres at high pool and a 42 foot drawdown it will not be possible to make much of an impact on the total deficiency of boating, but a body of fresh water should be a welcome sight indeed.

A great deal of consideration has been given to the proposed concept of a recreation area that is compatible with the management concepts of the U. S. Forest Service. The U. S. Forest Service, who will gain control of the land upon completion of the construction of the recreation facilities, will become the operators of the park.

Silverwood Lake lies in a natural setting in the heart of the San Bernardino Mountains compatible with the development planned. Of the total acreage acquired for both water projects and recreation purposes, 435 acres have suitable slopes and cover for intensive recreation facilities. The 435 acres are composed of several separate geographic areas. The facilities in these various areas will provide a range of water associated activities including boating, fishing, swimming, picnicking, hiking, horseback riding, family camping, group camping, and group picnicking.

Capital cost for development is estimated to be \$6,671,000. Operation, maintenance, and replacement costs will bring the total cost for the first decade, 1970 to 1979 to \$15,269,000. An average annual use of approximately 2,188,000 recreation days per year will be generated while the instantaneous capacity of the park will be approximately 18,500 people per day.

INTRODUCTION

Location

Silverwood Lake State Recreation Area is located in San Bernardino County at the base of the north slope of the San Bernardino Mountain range which extends along the southern edge of the Mojave Desert. The desert communities of Hesperia and Victorville lie only 10 minutes and 30 minutes, respectively, to the north of the project. The City of San Bernardino, located at the base of the southern slopes of the mountain range, is only 30 minutes from the site and downtown Los Angeles is less than 2 hours away at average driving speeds.

The project lies in the transition zone of chaparral covered desert foothills to tree covered mountain slopes within the San Bernardino National Forest.

The mean annual temperature is 60 degrees Fahrenheit. Freezing conditions occur occasionally during the winter and summer temperatures sometimes reaching 100 or more degrees Fahrenheit.

Acquisition

Silverwood Lake is one of four major reservoir projects in Southern California being constructed as part of the State Water Project. Like many of the other features of the State Water Project, recreation has been specified as one of the primary project purposes.*

In accordance with provisions of the Water Code**, properties for recreation purposes were acquired at the same time as land for other features. The total acquisition for project purposes includes about 4,840 acres, of which approximately 2,431 acres were acquired for recreation purposes only. About 995 acres of the total project area is water surface.

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

** Section 346

Of the total land within the project, 3,480 acres were U. S. Forest Service lands; only 1,360 were privately owned. Since the recreation features of the project will be operated by the Forest Service, the private lands for recreation at the project were acquired by the State initially and then deeded to the Forest Service in exchange for Forest Service lands of equal value to be added to other state parks throughout the State.

Classification

It is assumed that Silverwood Lake will be classified as a State Recreation Area by the State Park and Recreation Commission*. Naturally, the plan for development focuses around water oriented recreation. However, efforts have been made in the plan to diversify the types of recreation experiences available to take full advantage of this site in an area of the State where there is a chronic shortage of water-associated, outdoor recreation facilities. Provisions have been made in the plan for 556 picnic units and related parking, 3 group picnic units, a 6-lane boat launching ramp with parking, 208 camp units, 4 group camp units, 167 boat-in picnic units, 3 swimming beaches, one boat-in ski beach, and riding and hiking trails. Associated public services generally include a marina, restaurant, bait and tackle shop, laundromat, snack bar and general store.

When fully developed, the Silverwood Lake State Recreation Area is designed to accommodate about 18,000 people per day.

Management Plan

In accordance with the Memorandum of Understanding, dated March 1, 1968, between the U. S. Forest Service and the Department of Water Resources, Section VII-D states the Forest Service shall operate and maintain the recreation facilities on National Forest lands in accordance with National Forest regulations and policies at no cost to the State.

* Resources Code 5001.5 (Paragraph D)

NEED

SILVERWOOD LAKE

Silverwood Lake lies on the fringe of the Los Angeles metropolitan complex (Los Angeles, Orange, Riverside and San Bernardino counties) and within easy reach of the San Diego, Santa Barbara and Bakersfield metropolitan complexes.

The projected population* for these metropolitan centers is:

	<u>1969</u>	<u>1980</u>	<u>1985</u>
Los Angeles, San Bernardino, Riverside Metropolitan Complex	9,553,200	12,730,400	14,152,900
San Diego Metropolitan Area	1,297,200	1,689,400	1,898,700
Bakersfield Metropolitan Area	340,000	427,100	466,500
Santa Barbara Metropolitan Area	254,900	363,600	411,800

The recreation demand for the residents of these metropolitan areas is increasing faster than the population growth. For example, while the population of the Los Angeles complex will increase approximately 67% between 1960 and 1980, the recreation demand of its residents is expected to increase 92%, or 1.37 times the population growth during the twenty-year period.

The new facilities needed from all suppliers to meet the existing and future recreation demands of these metropolitan areas within their respective travel time zones from Silverwood Lake include:

	<u>1970</u>	<u>1980</u>	<u>2000</u>
<u>Zero to One Hour Travel Time Zone</u>			
Los Angeles-San Bernardino-Riverside Metropolitan Complex			
Camp units	3,678	4,618	7,658
Picnic units	8,388	14,068	28,158

* Department of Finance

Riding trails (miles)	388	578	1,040
Hiking trails (miles)	272	-607	1,246
Marina slips	6,113	13,603	28,503
Boat access parking spaces	8,572	11,822	18,272

	<u>1970</u>	<u>1980</u>	<u>2000</u>
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Two to Four Hour Travel Time Zone

San Diego Metropolitan Area

Camp units	502	902	1,602
Picnic units	541	751	1,341
Riding trails (miles)	15	325	499
Hiking trails (miles)	-232 (excess)	-72 (excess)	15
Marina slips	588	938	1,668
Boat access parking spaces	316	466	786

Bakersfield Metropolitan Area

Camp units	11	11	181
Picnic units	84	164	284
Riding trails (miles)	-28 (excess)	26	60
Hiking trails (miles)	-131 (excess)	-51 (excess)	-10 (excess)
Marina slips	38	48	148
Boat access parking spaces	30	60	120

	<u>1970</u>	<u>1980</u>	<u>2000</u>
<u>Two to Four Hour Travel Time Zone</u>			
Santa Barbara Metropolitan Area			
Camp units	228	248	418
Picnic units	206	226	366
Riding trails (miles)	11	35	55
Hiking trails (miles)	-29(excess)	35	69
Marina slips	194	254	414
Boat access parking spaces	97	117	187

Water-oriented recreation areas are in high demand throughout the state and especially in Southern California where there is a critical deficiency of such areas. Silverwood Lake has potential for high density recreation development and when coupled with the attractiveness of a freshwater lake in such a beautiful setting should assure heavy use from the recreation seeking residents of the Los Angeles metropolitan complex as well as vacationers visiting southern California.

THE PLAN FOR DEVELOPMENT

DEVELOPMENT RATIONALE

The initial development plan proposed by the Department of Parks and Recreation created a recreation area within a forest environment that would encompass a great variety of experiences for many types and ages of people. The normal day use period would be extended into the evening with scheduled on-going programs. Various types of overnight facilities would have been constructed to serve the varied wants of visitors.

In this plan, the following facilities would have been constructed: A lodge with housekeeping cabins, amphitheater, youth hostel, craft shop, ecological educational facility, nature center, child day-care center, service station, group picnic area, recreation halls, children's play areas, active sports area with courts, play pools, turfed play areas, horse staging area with connecting riding trails and on-trail picnic and camp sites.

The U. S. Forest Service will be the operator of Silverwood Lake State Recreation Area. And as such the planning staff of the San Bernardino National Forest did not feel this area should be developed to the extent proposed by the State. Through coordination efforts, it was mutually agreed that the planning would follow the traditional rustic Forest Service type of development. Therefore, this General Development Plan is based on the concept of providing non-urban recreation facilities appropriate for a forest environment.

This climate and elevation, coupled with the scenic values inherent in the surrounding National Forest, provide a pleasant relief from the pollution factors of noise, smog, traffic, and congestion plaguing the metropolitan centers. Public recreation facilities have been developed here to offer the

urban dweller an environment which will bring him in contact with the clean air and native flora and fauna indigenous to this area. By concentrating the recreation facilities, vast areas will be left untouched to provide the visual contact of open space, as well as opportunities for active recreational pursuits, within a balanced program of recreation development. Its main forms of recreation will be swimming, picnicking, boating, fishing, camping and hiking.

One of the basic concepts set forth by the Forest Service in the planning for Silverwood Lake is that all day use would occur below the relocated Highway 138 and all overnight use above.

When locating camping and picnicking inside a densely covered forest environment of this kind, fire hazard becomes acute. Steps are being considered to help reduce the fire potential such as selective clearing, removal of combustible dead wood in and around the use areas and peripheral irrigation systems. In the general development planning the Forest Service requested wherever possible to encompass the development with the access road, which would also serve as a fire break.

There are two areas designated as wildlife enhancement areas. The wildlife development will consist mainly of water guzzlers, feed plots, ramadas, and plantings to encourage wildlife into the area. The basin supports a wide variety of wildlife. Fishing now exists mainly from plantings of catchable size trout during spring flows. Fish and Game will continue to stock the stream as well as periodic plantings in the lake. There will also be some natural upstream movement of trout from the lake.

The majority of the recreation development is proposed along the southern end of the reservoir primarily because 98% of the land with desirable slopes, with the necessary tree cover, occurs there. The development proposed along the two forks of the Mojave River is limited in scope in order to preserve the delicate ecologies existing there. A brief description of the various areas followed by a discussion of the rationale behind each development will be given in a progressive order going from east to west and then to the north of the project.

MILLER CANYON AREA

The Miller Canyon development site is located on the old flood plain of the east fork of the west fork of the Mojave River. The area possesses many of the aesthetic features that will make it one of the favored areas. It has a year-round stream (except in years of drought), tree-lined natural sand beaches, and grassy areas. There are large pine and oak trees scattered through the open spaces with dense brush and changes in the topography producing a variety of open spaces.

Considerable day use will be generated at Silverwood Lake because of its close proximity to metropolitan areas. Group picnicking is one of the day use activities that is deficient in the San Bernardino Mountains. Three group picnic areas are proposed for Miller Canyon. Of the three, one unit will accommodate a group of 50 people and will be less sophisticated. The other two units will accommodate groups of 75-100 people and will be designed and constructed with consideration given to details and aesthetics. They consist of two concrete terraces facing opposite directions, two group size barbeque stoves, raised redwood decks with overhead shade structure and tables and screen dividers between the two units. An open play field will be provided for use by all three groups.

The area lends itself to group use for several reasons:

1. The isolation from other types of incompatible uses.
2. The small size of the area (about 6 acres).
3. The confined and well defined space due to the 30-40 foot bluffs on two sides.
4. The related activities in the general vicinity such as fishing, wading, hiking.

Every opportunity was taken to assure that the impact of the facilities and cars would not detract from the natural beauty of the area. Parking is provided at the site for group units only. Parking for the family picnic area and the Seeley Creek trail system will be provided along old Highway 138 just above the bluff from the picnic area. The native trees provide the necessary shade. Tan bark ground cover with tables and a stove will be the extent of facilities provided in the use area.

Chemical or vault toilets will be provided initially. There is a possibility in the future of tying into the Crestline Sanitation District sewer line with a spur line that would also serve the nearby State Division of Forestry's Pilot Rock conservation camp.

The potable water supply will come from a source upstream on Seeley Creek.

SEELEY CREEK

Seeley Creek area could be classed among the most scenic areas at Silverwood Lake. Very early in the planning it was agreed by the Parks and Recreation planning staff and the Forest Service that this area should be preserved in its natural state. The extent of the development would be a nature/hiking trail system, to include a portion of the California Riding & Hiking Trail system,

an observation deck and stream crossing at the scenic overhanging rock, and a pedestrian swinging cable bridge across Seeley Creek Box Canyon. To prevent any service roads into the area, toilet facilities and parking areas will be located at the upper end of Miller Canyon and at the lower end (Burnt Mill Area). At two locations along old Highway 138, 10 car parking areas will be provided for hikers and sightseers.

Seeley Creek is a very picturesque canyon because of the sheer walls of the granite formations and the cascading effect of the stream. The creek is fed by springs year-round except during very dry years. The canyon can be a pleasant surprise to the hiker due to the nature of the canyon opening. Most visitors would overlook its hidden beauty unless it were signed and a trail directed to it.

Fishing will continue to be one of the main uses of the East Fork of the West Fork of the Mojave River. The Fish and Game Department will continue its program of stocking catchable size trout during sufficient flows of the stream.

BURNT MILL AREA

The Burnt Mill area is at the lower end of Seeley Creek Area where the river meets the lake. The trail system up to Miller Canyon begins at Burnt Mill. A meadow area adjacent to the stream, studded with large oaks and pines, will be a favorite spot with 20 picnic units for the casual picnicker or hiker.

The main facility of this area is the East Beach development backed up by 18 picnic units terraced on the hillside under the spread of a group of sycamores or under the protection of a dense mass of scrub oaks. Because of the dangerous fire hazard, no stoves or fires will be allowed at this area.

A beach was selected at this location for four reasons:

1. The existing slope of the terrain was suitable for beach development.
2. With a minimum of grading necessary the cost to develop a beach will be reasonable.
3. In the overall planning of recreation developments at Silverwood Lake a diversity of experience was sought. Thus, this beach would offer a much different experience because of its size and remote location. It is the only walk-in beach, the smallest in size, and the only beach in this area of the lake.
4. This beach will provide direct access for those coming only for day use from the local Arrowhead-Crestline Area.

A 75 car parking area is terraced along a gentle slope 1/4 of a mile from the beach at the terminus of the old Highway 138. This parking will also serve the hikers of the Seeley Creek area. Toilet facilities will be provided at the parking area and at the beach.

An existing jeep road to a spring fed Forest Service water storage tank can be upgraded for a service road. Water from the spring can be used for the potable water supply for the picnic area. The road would also serve as a fire break in case of an accidental fire.

SAWPIT CANYON AREA

Sawpit Canyon, chosen for its many ideal conditions, is destined to be the center attraction and the most intensive development of the whole project.

This piece of land, approximately 65 acres, is divided into three distinct areas each possessing its own individual characteristics and individual ecologies thus indicating a different kind of use.

The major access to Sawpit Canyon Recreation Area will be from the diamond interchange on Highway 738 at Cleghorn Cove through the Lower Mesa area a distance of nearly 2.2 miles.

A service road under construction will be used jointly by the Crestline-Lake Arrowhead Water Agency as access to their pumping plant, the Department of Water Resources to service the outlet works, and the U. S. Forest Service as a fire road and emergency exit in case of fire in the Sawpit Area.

1. The Meadow Area

The meadow has two kinds of ecologies. The upper portion beginning at the old pioneer Hewit property is a grove of large 80 foot deciduous oak trees with a dense forest of young pine trees on the eastern portion. Below this grove of oaks is a grass covered meadow surrounded by a few large spreading oaks and other immature pine forests. The picnic area lends itself to a less than normal density of 10 units per acre. A total of 42 family picnic units and 45 boat-in units is proposed for the meadow area. The boat-in units are proposed in this area because suitable slope on the shore will allow boaters to beach their boats. A loop road will be provided around the meadow so the meadow can be preserved as a green open space. The picnic units will be situated along the edge of the bluffs under the tree cover commanding tremendous views of the lake.

Many feel the historic significance of the house and its architecture, which possesses a sense of beauty and proportion, is worth the effort of saving it for a worthwhile use. Providing, of course, that the remodeling and renovation necessary to convert it into something useful such as a country store, museum, or even a child day care center proves financially and structurally feasible.

2. The Sawpit Land Fill Area

Directly below the meadow is a land fill created from the spoils of the approach channel to the project outlet tunnel. The Department of Water Resources constructed the fill to specifications established by Parks and Recreation. The free form shape of the fill was designed to blend with the natural topography and still serve several needed functions such as, the boat launching ramps, the marina cove, the main swimming beach and most important of all - flat land for parking cars and boat trailers. Without this fill area we would be forced to park cars and trailers in the meadow are above. This man-made area will be one of the few areas requiring any landscaping.

The major portion of the public services will develop in this area. This will include a marina with an exclusive restaurant, bait and tackle shop, short order cafe, fuel dock, possibly a dry boat storage near the launch ramps and a snack bar at the South Beach complex. This beach will be the main swimming area with approximately 1,000 lineal feet of beach frontage for approximately 1,500 sunbathers and swimmers. A paved plaza, outdoor eating area, seating alcoves, comfort station, dressing-rooms, first aid-lifeguard stations will also be included in this South Beach complex. These facilities will be tied together by a promenade walk and turfed areas accented with specimen trees.

Sawpit Canyon area is the main area where landscaping is needed because of the land fill. The Department of Fish and Game has requested that all landscape proposals be coordinated with its personnel so that the use of plants which are beneficial to wildlife can be considered. Landscaping should also include proposals for transplanting existing trees from the surrounding areas where it would not alter the future effectiveness of that area.

The size of the lake is the guiding factor which determines the number of launching lanes, boats in the marina, and rental boats.

The number of boats the lake could support was determined by using an area of two acres per boat for a safety factor and applying it to the mean surface acreage when the drawdown is half way. This is the point during the summer season at which the drawdown is the greatest. In order to keep a minimum of two acres per boat it must be figured from the smallest body of water and during the heaviest use period. As the area increases from the mean the concessionaire can rent more boats or more boats can be launched. Thus, using approximately 800 surface acres and 2 acres per boat, approximately 400 boats can be on the lake at any one time.

The breakdown of boating use is as follows:

Marina	75 Boats
Marina Rental Boats	<u>45 Boats</u>
	120 Boats

The assumption has been made that 85% of the 120 marina boats (102 boats) will be in use on any one day of the weekend. Deducting the 102 marina boats from the total capacity, 400 boats, will allow approximately 300 boats to be launched on one day.

During the increase of surface acres as the lake rises, the concessionaire will then rent more boats. The number of boats that can be launched will be controlled only by the available parking.

Through studies and observations it was determined that each launching lane can launch 50 boats per day - mainly because most boaters arrive within a given space of time and leave generally the same time. Therefore the proposed 6-lane ramp can launch approximately 300 boats per day. Behind the boat ramps a 200 car and

trailer parking area is proposed and the remainder of parking will be on the turf area in the meadow above. The marina facilities will have a 130-car paved parking area, and an overflow turf parking area for 70 cars. Accommodation docks will be provided for the convenience of the passengers. Near the boat ramps will be a comfort station with a fish cleaning facility.

A total of 168 picnic units in the South Beach complex with 308 parking spaces, an additional 20 walk-in picnic units are proposed for this area. The main picnic area with 98 picnic units will be placed adjacent to the beach in a dense grove of tall manzanita and oak brush.

An additional 50 picnic units will be placed near the shore around the boating cove. This area will have an exciting environment because of the activity and views of the marina, the sail boats and lake.

Part of these picnic units should have concrete slabs, privacy screens and ramada shade structures. Trees will be planted in this area to provide shade in the future.

3. Sawpit Creek Area

Sawpit Creek is a totally different ecology with sycamore and other trees clustered along the spring fed creek. The stream, having changed course several times during its history, has created a pleasing landscape. Seventy-five (75) picnic units are located along the drainage and on a hillside covered with dense native oaks. By the end of the summer season, the water will have receded out of this area down to to the South Beach. An open play area of approximately $1\frac{1}{2}$ acres will be graded out on the existing cleared grassy meadow.

MESA AREA

The proposed development for this region of the project includes the Upper Mesa, the Lower Mesa, the U.S. Forest Service Administration site, and one of the nature areas.

This area lies above a 125 foot bluff along the west arm of the lake. The land rises on a gentle slope of about 3 - 5%. There are two major open spaces, one confined by dense brush and a change in the topography, and the other confined by the edge of the bluff and masses of brush.

Twelve to fifteen foot manzanita and multi-trunked oaks comprise most of the larger plants. The California flannel bush, because of its profusion of colorful blossoms, makes it one of the most prominent examples of vegetation in the area.

The mesa has been split into two unconnected areas. Upper Mesa and Lower Mesa, by the State Division of Highways recent relocation of State Highway 138. The Division of Highways stated that this was the only alignment design acceptable for expressway standards with no grades over 4%. The U. S. Forest Service tried at the public hearing held in San Bernardino to stop their action, but to no avail. This severance of the land into two separate areas has created higher recreation development costs due to longer access roads, and more important, has divided a major use area. The Division of Highways could not allow an "on grade" crossing for access to the Upper and Lower Mesa areas along this section which bisects the mesa because of future plans to upgrade Highway 138 to expressway standards.

Vehicle access from the west side of the diamond interchange will serve three areas, the Upper Mesa Campground, the Nature Area (fish and wildlife enhancement area), and the Forest Service Administration Area. A 15 car parking area

adjacent to the campground and a trail system are the only development planned for the Nature Area.

The Forest Service Administration and Operations Center will be located a quarter of a mile above the campground on a sloping knoll. The choice of this site was mainly for seclusion from the public, security, safety and also because of the relationship to Highway 138 in case of emergency. A secondary access would be a connecting road to the campground.

1. Upper Mesa Area

The U. S. Forest Service requested that this 50 acre site be designed as a class "A" pull-through trailer campground with electrical, sewer and water hookups. There will also be two comfort stations not more than 800 feet apart. The dense vegetative cover will make it feasible to carve out all roads, parking spurs and use areas, leaving enough native vegetation for screening purposes between units.

2. The Lower Mesa Area

The Lower Mesa recreation development consists entirely of day use facilities. This area is slightly larger than the Upper Mesa and contains two open meadow areas which will be retained as natural open space.

Parking for 500 cars will be provided and 225 picnic units will be located by opening a network of spaces within the dense brush. The spaces will be large enough to allow open play areas to be developed with the picnic units tucked under the shade of the tall brush.

Approximately twenty (20) picnic units will be placed along the north edge of the bluff. A long continuous ramada will be constructed covering all the units. The function of the ramada will be mainly for shade, and also a space frame to contribute some architectural detail to the park. These units will be among the

few picnic units with a view of the lake. A hiking trail with overlook points at strategic locations will also be routed along the bluff.

Vehicle access to the Lower Mesa and also the Sawpit Canyon Area will be from the east side of the diamond interchange.

3. Nature Area

The wildlife enhancement area begins adjacent to upper Mesa and extends down the canyon to the lake below the Lower Mesa Area. A trail system will connect the picnic areas, nature area, shoreline and canyons to make them easily accessible to the public.

WEST FORK AREA

This area is located on the western perimeter of the reservoir boundary and is divided into two distinct ecological and physiographic areas. The southern piece of land rises abruptly above the West Fork of the Mojave River and flattens out into a plateau covered heavily with sagebrush manzanita, wild plum and several species of oaks.

1. West Fork Family Campground

There is a need for more overnight use than will be supplied by the 208 units proposed at Silverwood Lake according to all the available studies, but suitable land is at a minimum on this project. This plateau is the only area where a family campground was feasible with regard to access, percent of slope, utilities, and tree cover. This campground site, while it offers very few views of the lake, does have a pleasing configuration of land which has resulted in an interesting campground layout.

The sites and parking will be developed by State park standards, but no showers will be provided. This is in accordance with the U. S. Forest Service campground standards and policies.

The area is partially bisected by a small canyon in which there will be a 600 seat campfire center with parking for 55 cars to accommodate people from other areas in the park who are not within walking distance. The Forest Service will organize and present evening programs.

2. West Fork Group Campground

The ecology of the West Fork Group Area is quite different than the area above it. This gentle sloping piece of river bottom land is sparsely covered in groupings of tree and brush masses. The river has deepened its channel sufficiently to contain the flash flooding that can occur in this climatic region.

The access road to the two West Fork Areas is also the Cleghorn Canyon County Road. There are a few private residences west of the park boundary, so this road must be kept open. At the two locations where the road crosses the river, concrete fords are proposed, primarily because bridges are not economical, and due to the heavy debris loads, culverts have not proven satisfactory. There will be very little public use of the campgrounds during the winter months and with the heavy flows normally lasting only a few hours the concrete fords should prove satisfactory.

This type of group area is in great demand all over the State and especially in Southern California. The group camps here are expected to be full every weekend of the recreation season.

This area seemed most suited to group use because of the arrangement of the open spaces and tree masses. This gives a variation of spaces to tie in with the

variation of the sizes of the individual group areas. There are four areas, each with a structure to provide cooking, eating and a meeting place with protection from the elements. There will be one 300 seat campfire center on a reservation basis or combined use when a general program is scheduled by the Forest Service. A recreation hall is proposed and would be rented for a minimal fee. A parking area and a comfort station are proposed for each group area.

These group areas will require little manipulation of the landscape in order to make them useful. Only selective clearing, pruning and grading along with some tree planting will be necessary.

CLEGHORN COVE

Cleghorn Cove is the land around the west arm of the lake. It begins at the base of the bluffs of the Mesa Area stretching up-river to the diamond interchange. Nearly all of the development of the day-use facilities are tucked in among the tall brush on the north side of the cove. Approximately 50 portable picnic units will be located along the shoreline of the lake in this cove and under the Forest Service operation will be moved down with the water as it fluctuates.

The access road into the Cleghorn Cove and the North Beach will follow an existing firebreak where the trees have all been eradicated. Parking for the 45 picnic units will be along the cleared area also.

Lying half way between the west end of the Lower Mesa and the Cleghorn Cove Area is a beautiful natural meadow. There are several springs which find their way across the meadow keeping the dense matted grasses green and the few large pines healthy. At the west end of this area where no trees exist, the sewage treatment plant will be graded into the hillside so only 1/3 of structures will show, screening plants will be used along east side of plant to assure that it does not detract from the quality of the meadow.

The outstanding attraction at Cleghorn Cove will be the North Beach. Second in size to South Beach it will accommodate approximately 1000 - 1100 swimmers and sunbathers before the water draws down too far and only about 800 when the lake is low. Behind the beach on the existing 20% slopes, 90 picnic units will be terraced under the oak clumps and tall brush. A 75 car and a 35 car parking lot will be graded into an area where the slopes are more suitable.

The lifeguard tower and first-aid station will be located on the beach in front of the terminus parking area. It will have telephone and patrol boat service with the South Beach. Each lifeguard stand at both beaches will have intercom telephones. In case of emergency at South Beach, the patrol boat or an ambulance can be dispensed on a second's notice. A comfort station dressing room facility will be centrally located on the beach.

The North Beach has two alternate possibilities of development. If the Department of Water Resources has excess material from the excavation of the approach channel for the reservoir, they will place the fill to rough grade for the beach according to the grading plans drawn by Parks and Recreation. Water Resources will charge the Department for the overhaul costs only. If they do not have enough material, the existing slopes will be graded into a 6% - 8% beach. In either case, washed sand will be imported and spread over the beach to a depth of 18 inches.

If the beach is constructed with fill then more parking and swimming area can be provided while at the same time creating a more aesthetic looking beach.

The U. S. Forest Service public contact station and office will be located near the east side of the interchange, but above the flood plain. This site was chosen because of its central location and visibility from the highway.

Just west of the interchange will be another contact station and a public sanitation disposal station for the convenience of the trailer and camper owners.

From the Cleghorn Cove Area, two fishing and hiking trails will lead to the Chamise boat-in area or the two vegetative retention areas (explained in number 2 of the following section).

CHAMISE, LIVE OAK AND SYCAMORE LANDING

The main body of the reservoir, where most of the boating will take place, is at the north end of the lake. As a major boating area, there should be boat-in areas within easy access to the shore. Statistics have shown that usually 55-65% of the boats will be on the shore. However, only a limited number of boat-in units are proposed, because of the steep slope and lack of tree cover.

The Forest Service may see the need in the future, for floating picnic-ski platforms to satisfy this need.

The Chamise, Live Oak and Sycamore areas are the only areas where development will take place. There will be only 6 units at Chamise with one vault toilet, 65 units at the Live Oak Area with three vault toilets and 16 picnic units with one vault toilet at Sycamore Landing.

The Sycamore Landing is the result of the combined efforts of the Forest Service and this Department working closely with Department of Water Resources in the excavation of the Cedar Springs Dam quarry. Sycamore Landing is a ski beach and picnic area created from the overburden which was stripped off the quarry site by the dam contractor. The use area will be sculptured with earth mounds and the entire area landscaped with trees and native grasses.

1. Cedar Springs Dam Quarry

Great concern was expressed by the Department that the usual massive quarry scar would not remain for everyone to see for years to come but that it should be excavated in such a way that it could be planted and eventually blend with its surroundings. Through the combined efforts of this Department, the Forest Service and the Department of Water Resources agreement was made to the following conditions:

- a. Quarry would be excavated according to the drawing presented to Department of Water Resources by the Department of Parks and Recreation.
- b. That the U. S. Forest Service would retain the right to make field inspections and suggestions to the project engineer concerning the excavation.
- c. The quarry would have 10-15 foot wide horizontal benches staggered vertically to disrupt a continuous line.
- d. That existing drainage problems be taken care of.
- e. That all topsoil would be stripped off and stockpiled to be replaced on the excavated beaches.

- f. The overburden would be stripped and placed adjacent to the quarry according to the plan submitted by Parks in order to create a boat-in area with a ski beach. (Sycamore Landing)
- g. The beaches will be landscaped with native plant materials (nursery stock) and other native seed collected from the site and applied by hydromulching.

Because of the hazard of falling debris, it was decided that the quarry would not be used for any specific recreation activity.

2. Vegetative Retention Areas

The Department of Fish and Game has designated four areas where trees and large vegetation existed as vegetative retention areas for fish habitat. During the reservoir clearing operation these areas were not cleared. In a fluctuating reservoir these areas create a hazard and, therefore, will be buoyed and speed limits enforced.

MISCELLANEOUS DEVELOPMENTS

FISHING ACCESS

Several pull-off parking areas along relocated Highway 138, west of the lake, will serve the hike-in fishermen and sightseers. Hiking trails are to be constructed from these parking areas to the trails around the lake.

CALIFORNIA RIDING AND HIKING TRAIL RELOCATION

The Department of Water Resources was obligated to relocate the California Riding and Hiking Trail because the existing trail will be inundated by the lake. The relocated R & H trail begins at the Cedar Springs Dam Overlook access road. It continues around the east side of the reservoir, eventually tying in with the Pilot Rock Road which was severed by the quarry excavation.

WATER AREA ZONING

It will become imperative that a water surface zoning be put into effect due to the saturation of many types of boating and the limited water surface. Speed zones in the two river arms and the straights toward the main body of the lake will be a 5-10 miles per hour zone.

Silverwood Lake State Recreation Area is destined to become one of the recreation spotlights of California. Because of its size in relation to the amount of land developed and the amount of water surface, the responsibility becomes more acute. The responsible protection of the environment from the pollution of the air, water, and land must be the concern of all. However, overcrowded conditions could be our worst enemy if we are indeed supposed to provide the park user with a pleasant, memorable experience unlike the city from which they may have come.

COST OF FULL DEVELOPMENT

The total cost of development of the Silverwood Project, for both the State and the private sector is \$6,671,000*. The initial purchase price of equipment to operate the project is not included as this will be operated by the U. S. Forest Service.

* This figure is a preliminary estimate by the Department of Parks and Recreation based on General Development level planning studies. It represents current 1969 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 & COST SUMMARY

STAGE I

Sawpit Canyon

TYPE OF FACILITY	<u>Existing</u>	<u>Proposed Additions</u>	<u>Total</u>
<u>Day Use</u>			
Picnic Units	0	250	250
Swimming Beach	0	1	1
Picnic & Beach Parking	0	680	680
Boat-in Picnic Units	0	42	42
Boat Launching Ramps	0	6	6
Courtesy Dock	0	2	2
Fish Cleaning Facility	0	1	1
Car/trailer Parking	0	300	300
Trails (in miles)	0	2.0	2.0
 <u>Concession Facilities</u>			
Marina (no. of slips)	0	100	100
Bait & Tackle Store	0	1	1
Restaurant	0	1	1
Snack Bar @ South Beach	0	1	1
General Store	0	1	1
Laundromat	0	1	1
 <u>Miscellaneous Facilities</u>			
Public Information Contact Station	0	1	1
Parking Spaces		30	30
U.S.F.S. Service Yard & Administrative Area		1	1

STAGE II

1. The West Fork Campground
2. The West Fork Group Camp
3. The Boat-in Picnic Areas

TYPE OF FACILITY	<u>Existing</u>	<u>Proposed Additions</u>	<u>Totals</u>
<u>Day Use</u>			
Picnic Units (Boat-in)	0	125	125
Campfire Center	0	1	1
Amphitheater	0	1	1
Parking Spaces	0	55	55
Cooking Structures (Group Camps)	0	4	4
Foot Trails (in miles)	0	3.8	3.8
Bridges	0	3	3
<u>Overnight Use</u>			
Family Camp Units	0	155	155
Group Camp Areas	0	4	4
Group Camp Units	0	109	109
Parking Spaces		225	225

STAGE III

Cleghorn Cove

TYPE OF FACILITIES	<u>Existing</u>	<u>Proposed Additions</u>	<u>Totals</u>
<u>Day Use</u>			
Picnic Units	0	196	196
Parking Spaces	0	246	246
Swimming Beach (1100 L.F.)	0	1	1
Control Tower	0	1	1
First Aid Station	0	1	1
Lifeguard Stands	0	1	1
Foot Trails (in miles)	0	1.0	1.0

STAGE IV

1. Upper Mesa Area
2. Lower Mesa Area

TYPE OF FACILITIES	<u>Existing</u>	<u>Proposed Additions</u>	<u>Totals</u>
<u>Day Use</u>			
Picnic Units	0	240	240
Parking Spaces	0	525	525
Nature Area	0	1	1
Trails (in miles)	0	1.8	1.8
Foot Paths (in miles) (paved)	0	1.0	1.0
<u>Overnight Use</u>			
Trailer Campground Units	0	53	53

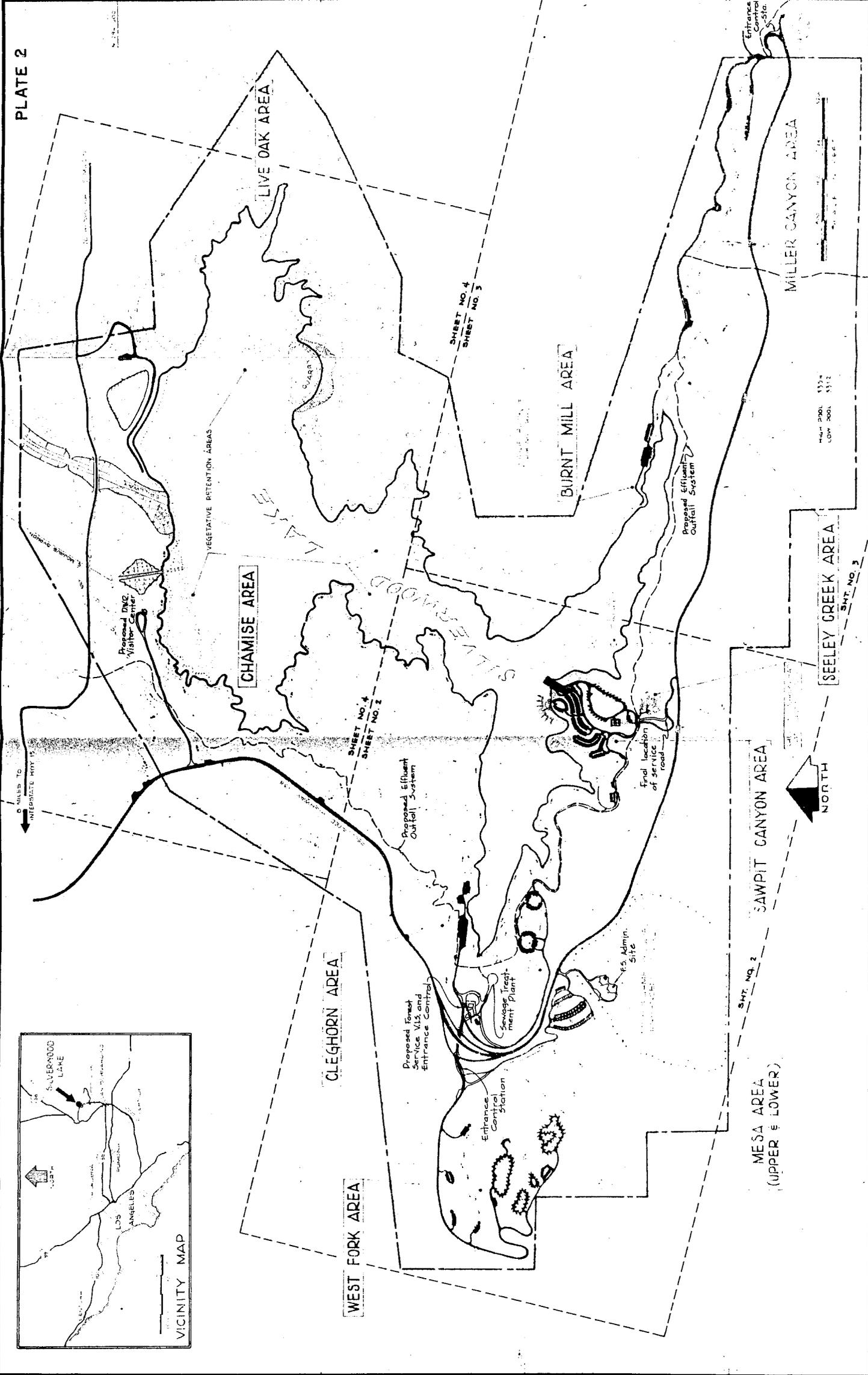
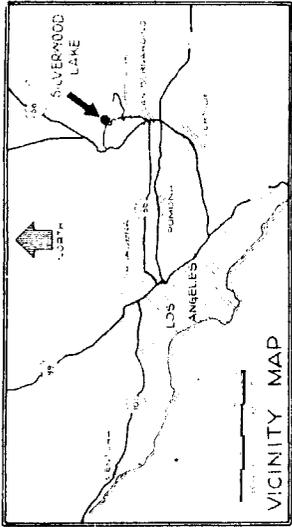
STAGE V

1. Miller Canyon Area
2. Seeley Creek Area
3. Burnt Mill Area

TYPE OF FACILITIES	<u>Existing</u>	<u>Proposed Additions</u>	<u>Totals</u>
<u>Day Use</u>			
Family Picnic Units	0	18	18
Group Picnic Units	0	3	3
Swimming Beach	0	1	1
Hiking Trails (in miles)	0	1.6	1.6
Parking Spaces	0	220	220
Foot Bridges	0	3	3
.....			
Development Costs	0	\$6,671,000	\$6,671,000
Estimated Yearly Operations Costs			8,600,000
Attendance (Per day)	0	18,190	18,190
Average Annual Recreation Use Estimate (in recreation days)	0	2,188,300	2,188,300

* Annual Revenue

* Not valid, because Silverwood will be maintained and operated by the U.S. Forest Service.



REVISIONS	BY	DATE	SCALE	1" = 500'	CONTOUR INT.	50 FT.
APPROVED	DATE	APPROVED	DATE	APPROVED	DATE	APPROVED
UNITED STATES FOREST SERVICE			APPROVED: <i>[Signature]</i> DATE: 10/1/72			
REGIONAL FORESTER			APPROVED: <i>[Signature]</i> DATE: 12/1/69			
DEPARTMENT OF PARKS AND RECREATION			APPROVED: <i>[Signature]</i> DATE: 2/1/72			
RESOURCES AGENCY OF CALIFORNIA			APPROVED: <i>[Signature]</i> DATE: 2/1/72			
SILVERWOOD LAKE			INDEX SHEET			
SHEET NO. 1			SHEET NO. SIX			



PLATE 3

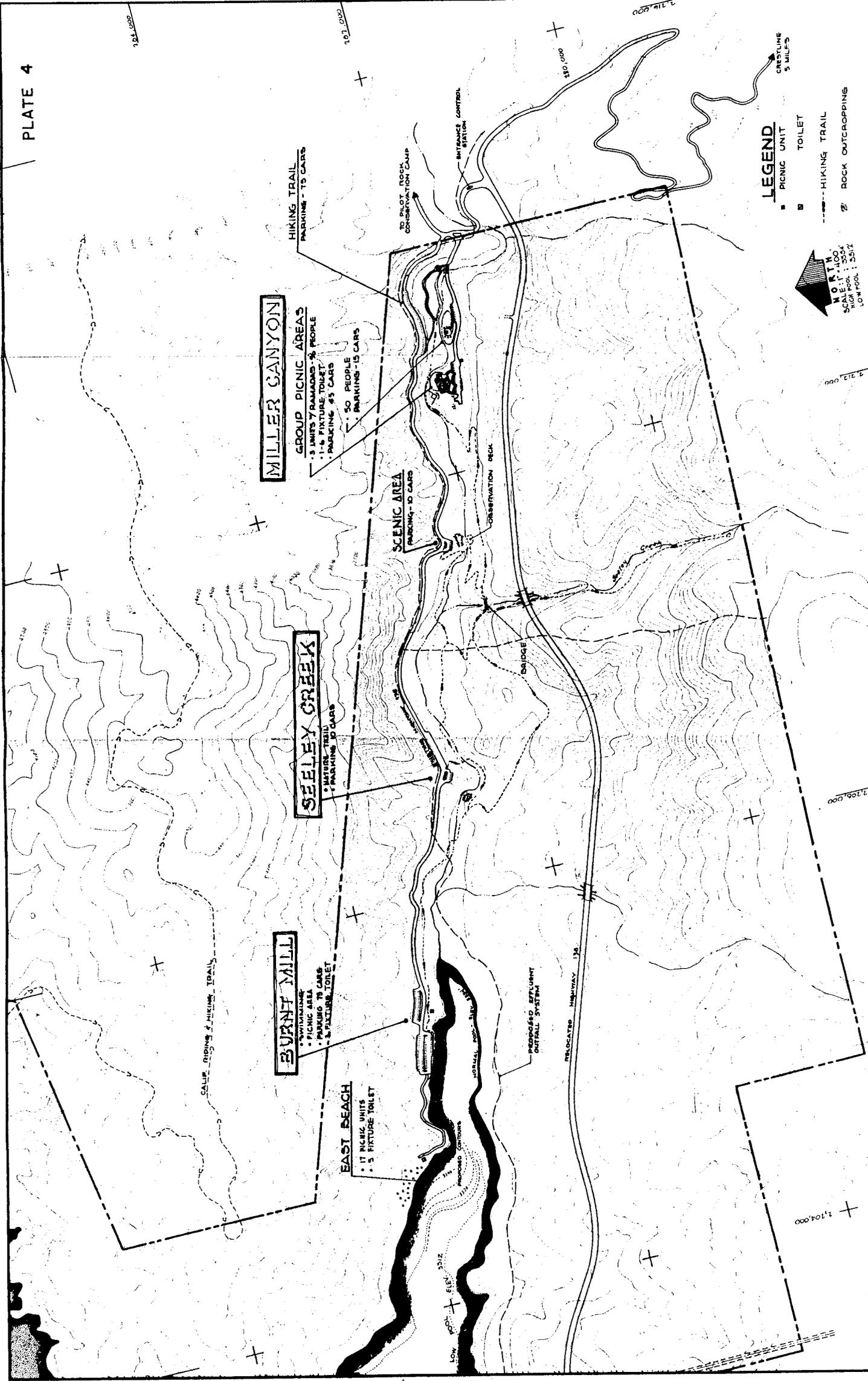
LEGEND

- COMFORT STATION
- TOILET
- PICNIC UNIT
- CAMP UNIT
- ★ GRASS-CAMP UNIT
- WALK-IN CAMP UNIT
- HIKING TRAIL

BY	DATE	SCALE 1" = 400'	CONTOUR INT. 10' & 20'	APPROVED BY	DATE 11/12/70	APPROVED BY	DATE 11/12/70
REVISIONS				APPROVED BY	DATE 11/12/70	APPROVED BY	DATE 11/12/70
				UNITED STATES FOREST SERVICE REGIONAL OFFICE APPROVED BY: [Signature] DATE: 11/12/70 APPROVED BY: [Signature] DATE: 11/12/70 NATIONAL FOREST			
				DIVISION OF FOREST SERVICE DEPARTMENT OF PARKS AND RECREATION DATE: 11/12/70			
				CALIFORNIA DEPARTMENT OF PARKS AND RECREATION DATE: 11/12/70			
				SILVERWOOD LAKE GENERAL DEVELOPMENT PLAN			
				SHEET NO. 6700 FILE NO. SIX OF FOUR			



HIGH POOL: 1,335'
LOW POOL: 352'

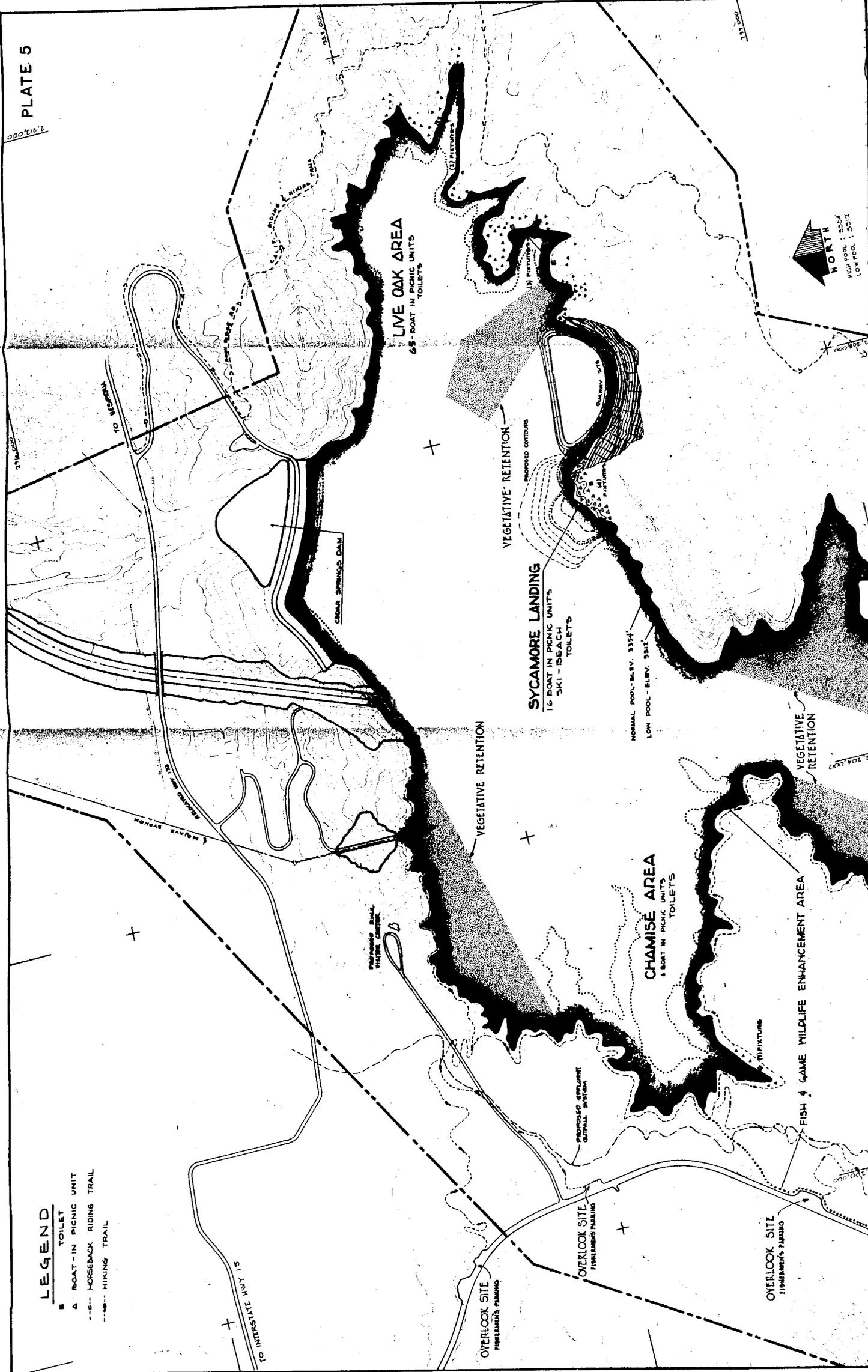


LEGEND

- PICNIC UNIT
- TOILET
- HIKING TRAIL
- ⊗ ROCK OUTCROPPING
- CENTERLINE
- 5 MILEPS

NORTH
 SCALE: 1" = 400'
 HIGH POINT: 3554'
 LOW POINT: 2552'

REVISIONS	DATE	SCALE 1" = 400' CONTOUR INT. 10' & 20'	BY	APPROVED	DATE
UNITED STATES FOREST SERVICE APPROVED: <i>[Signature]</i> DATE: 4/14/70 REGIONAL FORESTER			APPROVED: <i>[Signature]</i> DATE: 4/21/68 SUPERVISOR - SAN BERNARDINO NATIONAL FOREST		
DEPARTMENT OF PARKS AND RECREATION APPROVED: <i>[Signature]</i> DATE: 4/12/68			INDIANAS AGENCY OF CALIFORNIA		
DRAWING NO. 6,160 FILE NO.			SHEET 5 OF 10 DISTRICT SIX		
<h1>SILVERWOOD LAKE</h1> <h2>GENERAL DEVELOPMENT PLAN</h2>					



LEGEND
 ■ TOILET
 ▲ BOAT-IN PICNIC UNIT
 --- HORSEBACK RIDING TRAIL
 --- HIKING TRAIL

UNITED STATES FOREST SERVICE DEPARTMENT OF AGRICULTURE NATIONAL FOREST	APPROVED: <i>[Signature]</i> DATE: 10/2/20	APPROVED: <i>[Signature]</i> DATE: 10/2/20
	APPROVED: <i>[Signature]</i> DATE: 10/2/20	APPROVED: <i>[Signature]</i> DATE: 10/2/20
UNITED STATES FOREST SERVICE DEPARTMENT OF AGRICULTURE NATIONAL FOREST	DEPARTMENT OF PARKS AND RECREATION	DISTRICT SIX
COUNTY: 4 DRAWING NO.: 2700 FILE NO.:	COUNTY: 4 DISTRICT: SIX	SHEET NO. 4 OF FOUR

APPENDIX A

SILVERWOOD LAKE

Development Cost Estimates
(by stages)

Stage I. Sawpit Canyon

A. Access Road (from diamond interchange to sawpit) 2.2 +/- miles at \$286,000 =	<u>\$630,000</u>	\$ 630,000
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B. Utilities		697,000
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NOTE: This is the State's participation
into the Crestline Sanitation District's
Sewerage System.

Telephone	15,000	15,000
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C. Boating Facility		145,000
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D. Beach Development		235,000
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E. Park Roadways		52,000
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F. Picnic Facilities		294,000
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G. Concession Development	To be Developed by the Concessionaire	
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H. Public Information and Contact Station Cleghorn Cove and West Fork	40,000	40,000
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I. U.S.F.S. Service yard with trailer pads; Office and shops - site grading necessary	100,000	100,000
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J. Miscellaneous Components		<u>27,000</u>
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K. Estimated Total Cost		<u>\$2,285,000</u>
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STAGE II

- Includes: 1) The West Fork Campground
2) The West Fork Group Camp
3) The Boat-in Picnic Areas

1) WEST FORK CAMPGROUND

A. Campground Facilities 155 Family camp units	\$ 79,000
B. Utilities	368,000
C. Roads and Parking	273,000

2) WEST FORK GROUP CAMP AREA

D. Group camp facilities	66,000
E. Miscellaneous components	413,000

3) BOAT-IN PICNIC AREAS

(Chamise, Sycamore Landing and Live Oak)

F. Boat-in picnic units	21,000
G. Miscellaneous components	<u>24,000</u>
H. Estimated Total Cost	<u>\$1,244,000</u>

STAGE III Cleghorn Cove

A. Access Roads and Parking	\$ 75,000
B. Utilities	153,000
C. Lifeguard Facilities	39,000
D. Picnic Facilities	176,000
E. Miscellaneous Components	<u>50,000</u>
F. Estimated Total Cost	\$ 493,000

STAGE IV

- Includes: 1) Upper Mesa Area
2) Lower Mesa Area

1) UPPER MESA

A. Access Roads	\$ 40,000
B. Utilities	90,000
C. Trailer campground	55,000
D. Miscellaneous Components	<u>7,000</u>
E. Estimated Subtotal cost	\$192,000

2) LOWER MESA

A. Access Road (Constructed in Stage 1) Roads and Parking	\$ 80,000
B. Utilities	139,000
C. Picnic Facilities	202,000
D. Miscellaneous Components	<u>60,000</u>
E. Estimated Subtotal cost	\$481,000
F. Estimated total for Stage IV is	<u>\$673,000</u>

STAGE V

- Includes: 1) Miller Canyon Area
2) Seeley Creek Area
3) Burnt Mill Area

1) MILLER CANYON

A. Access Road (Existing Highway 138) Roads and Parking	\$ 54,000
B. Utilities	84,000
C. Picnic Facilities	67,000
D. Miscellaneous Components	<u>13,000</u>
E. Estimated subtotal cost	\$218,000

STAGE V.

- Includes: 1) Miller Canyon
2) Seeley Creek
3) Burnt Mill Areas

1) MILLER CANYON

A. ACCESS ROAD

There are 1,900 L.F. of 2-way minor road within Miller Canyon.

Parking area - 135 cars.*

B. UTILITIES

Water system (self contained); no electrical and no sewage system. Vault toilets are planned.

C. PICNIC FACILITIES

3 group picnic units

D. MISCELLANEOUS COMPONENTS

Clearing, clean-up, foot trails and bridges.

2) Seeley Creek Area

A. Parking area at Scenic Vista for 10 cars.

B. 8,200 L.F. of hiking trails.

C. Miscellaneous components such as an observation deck, bridge, suspension foot bridge, fire hazard reduction, and selective clearing.

* Access is by the existing Highway 138.

STAGE V (cont'd)

2) SEELEY CREEK AREA

A. Scenic area	\$ 11,000
B. Trails	6,000
C. Miscellaneous Components	<u>4,000</u>
D. Estimated subtotal cost	\$ 21,000

3) BURNT MILL AREA

A. Roads and Parking	\$ 8,000
B. Picnic Facilities	8,000
C. East Beach Grade and import sand	<u>54,000</u>
D. Estimated subtotal cost	\$ 70,000

E. Estimated Total for Stage V \$309,000

GRAND TOTAL

STAGE I	\$2,285,000	
STAGE II	1,244,000	
STAGE III	493,000	
STAGE IV	673,000	
STAGE V	<u>309,000</u>	
	\$5,004,000	\$5,004,000

1% of total for signs	<u>50,000</u>
Subtotal	5,054,000

10% Contingency	<u>505,400</u>
Subtotal	5,559,400

20% A&E costs	<u>1,111,880</u>
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GRAND TOTAL	\$6,671,280
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ROUNDED TO	<u>\$6,671,000</u>
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APPENDIX B

SILVERWOOD LAKE

Facility Development 1/
(by stages)

Stage I

Sawpit Canyon

A. ACCESS ROAD - 2.2 miles

The access road will include all the road from Diamond Interchange to Sawpit Canyon area. Lower Mesa will be served from this same road.

Underground utilities including the Crestline Sanitation District's main sewer line will be located within the R. O. W.

The road includes a bridge structure at Sawpit Creek.

B. UTILITIES

The water, electrical power, telephone, sewage treatment plant and disposal system must be installed initially to serve the Sawpit Canyon area. The main lines will be sized for future development.

C. BOAT LAUNCHING FACILITY

Construct launch ramp, 200 car trailer parking, landscaping accommodation docks and fish cleaning facility.

1/ See Appendix A for cost.

D. BEACH DEVELOPMENT

Grade and import sand on north and south beach. Construct promenade walk around beach. A comfort station, dressing room with lifeguard lounge, first aid station, and central plaza.

E. PARK ROADWAYS

Minor two-way roads within the Sawpit Canyon area amount to 3,500 L.F.; minor one-way road amount to 2,200 L.F.

F. PICNIC FACILITIES

The development of the 250 picnic units and 42 boat-in units will require 680 parking spaces and 11 comfort stations.

G. CONCESSION DEVELOPMENT

The concession development for this area can coincide with the other development. The concession facilities will be designed and constructed by the concessionaire and will include the following: marina, marina office, restaurant, snack bar, bait and tackle store, general country store, and laundromat.

H. U.S.F.S. PUBLIC INFORMATION AND COLLECTION STATION

There will be two collection points, one on either side of the Diamond Interchange and one information dissemination office located at entrance to Cleghorn Cove Area.

I. U.S.F.S. HEADQUARTERS AND MAINTENANCE AREA

This includes an office, garage, maintenance building,
grease rack, vehicle storage area and two trailer pads.

It will be located adjacent to Upper Mesa trailer camp.

J. MISCELLANEOUS COMPONENTS

Trails and bridges, selective clearing.

STAGE II

1) West Fork Campground; 2) Group Camp Area; 3) Boat-in Picnic Areas

1.) WEST FORK CAMPGROUND

A. CAMPING FACILITIES

Construct 155 family camp units and nine comfort stations.

B. UTILITIES

Water, electric power, telephone, and sewage hook-ups will
be made for complete area.

C. ROADS AND PARKING AREAS

2-way major road 6,700 L.F.

2-way minor road 4,800 L.F.

1-way roadway 7,000 L.F.

270 parking spaces and 137 parking spurs

2.) WEST FORK GROUP CAMP

D. GROUP CAMP FACILITIES

109 units including 4 cooking shelters. Variation in size and layout will accommodate a variety of groups.

E. MISCELLANEOUS COMPONENTS

Fire hazard reduction - selective clearing, foot trails and bridges concrete fords on roadways, campfire center and amphitheater, comfort stations and landscaping.

3.) BOAT-IN PICNIC AREAS (Chamise, Sycamore Landing and Live Oak)

F. BOAT-IN PICNIC FACILITIES

125 total boat-in picnic units

G. MISCELLANEOUS COMPONENTS

Tree planting at Sycamore Landing; foot trails

STAGE III

CLEGHORN COVE

A. ACCESS ROAD

2,300 L.F. of major two-way road and 700 L.F. of minor 2-way road and parking for 246 cars

B. BASIC UTILITIES

Connect water, electrical power, telephone and sewage system to main lines.

C. LIFEGUARD FACILITIES

Construct control tower and first aid station, lifeguard stands on beach with miscellaneous safety equipment.

D. PICNIC FACILITIES

196 family picnic units

E. MISCELLANEOUS COMPONENTS

Fire hazard reduction - selective clearing, foot trails, walkway around the beach, a comfort station-dressing room and 3 comfort stations.

STAGE IV - Upper and Lower Mesa

Upper Mesa Area

A. ACCESS ROADS

Major 2-way road 2,700 L.F.; 20 car parking area for nature area.

B. TRAILER CAMPGROUND FACILITIES

53 unit pull through Class A trailer campground and three comfort stations.

C. UTILITIES

Water, electrical power, telephone and sewage hook-ups
for each parking spur.

D. MISCELLANEOUS COMPONENTS

Fire hazard reduction, selective clearing and cleanup.

Lower Mesa Area

A. ACCESS ROAD - (constructed in Stage I)

Minor 2-way road within area is 3,300 L.F.; one-way road
is 400 L.F. with parking for 525 cars.

B. UTILITIES

Water, electrical power, telephone and sewage hook-up.

C. PICNIC FACILITIES

240 picnic units and 5 comfort stations

D. MISCELLANEOUS COMPONENTS

Fire hazard reduction, selective clearing, clean up,
foot trails, walkways, foot bridges, and landscaping.

3) Burnt Mill Area

- A. Parking area of 75 cars including grading; 1,000 L.F. of service road.
- B. Picnic facilities - 18 picnic units terraced on hillside above beach.
- C. Swimming Beach - grade and importation of sand.

GRAND TOTAL

Total costs for development including 1% for signs, 10% for contingency and 20% for A&E costs = \$6,668,970.