

SILVERWOOD LAKE STATE RECREATION AREA

GENERAL DEVELOPMENT PLAN

Prepared By

MASTER PLANNING BRANCH

FEBRUARY 1970

1st Revision

OCTOBER 1971

2nd Revision

JUNE 1972

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

OBSOLETE NOTE  
ATTACH TO  
1970 PAGE ii and  
1971 TITLE PAGE

**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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# 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, M.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  
BACK GROUND  
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*

This report was prepared 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

Revised October 1971 by

Bob Hines  
Jim Gilbertson

Associate Landscape Architect  
Assistant Landscape Architect

Revised June 1972 by

Bob Hines  
Jack Chatfield

Associate Landscape Architect  
Associate Landscape Architect



## EXPLANATION

As the work on Silverwood progressed many things changed. In an attempt to reflect the situation as it now exists, we have updated the revised General Development Plan of 1971.

The method we used was to strike the obsolete information or figures of the 1971 revision so that they could still be read and type the new information above. This method is similar to that used in changing Legislative bills.

Until recently it was understood that the U. S. Forest Service would administer state constructed recreation facilities at Silverwood. It was intended that the Forest Service, through a land exchange, would assume ownership of State recreation lands at Silverwood. In April of 1972 it became apparent that public interests might best be served through State rather than federal operation of recreation facilities. On May 26 of 1972 the State did assume operations of the interim recreation facilities located at the Silverwood Lake Dam. (The interim facilities will remain in operation until June of 1973 when the first permanent recreation facilities will be ready for public use.) The State Park and Recreation Commission at its June 9, 1972 meeting officially classified Silverwood Lake as a State Recreation Area.

At this writing the two agencies are conducting joint studies which will resolve the question of permanent operation and maintenance of facilities. The statements and revisions that appear within this plan are based on the assumption that recreation facilities will be operated and maintained by the State Department of Parks and Recreation. Should the administration of these facilities be assumed by the federal government (U. S. Forest Service) rather than the State, it may be necessary to further modify certain elements within this plan.

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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, <sup>biking</sup> horseback riding, family camping, group camping, group picnicking, water skiing and environmental interpretation.

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 1,200,000 recreation days per year will be generated while the instantaneous capacity of the park will be approximately 10,000 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

Silverwood Lake was classified a 'State Recreation Area' on June 9, 1972.

#### 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.

The recreation facilities will be operated and maintained in accordance with policies, rules, regulations and orders of the California State Park and Recreation Commission and the State Department of Parks and Recreation.

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

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\* 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>
--	-------------	-------------	-------------

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>
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Two to Four Hour Travel Time Zone

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.

#### **at that time, was to**

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, biking and environmental interpretation.

One of the basic concepts set forth by the Forest Service in the planning for Silverwood Lake <sup>was</sup> is that all day use would occur below the relocated Highway 138 and all overnight use above. Under State operation this concept is revised to permit overnight use in the Mesa Area below Highway 138.

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.

is one a  
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. Five group picnic areas are proposed for Miller Canyon. Three areas will accommodate groups of 80 people each and the other two 48 people each. Each group will consist of a group size barbeque stove, food preparation tables, picnic tables, drinking water, garbage containers, and an asphalt pad.

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, biking and hiking; environmental interpretation.

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 trail users will be provided along old Highway 138 just above the bluff from the picnic area. The native trees provide the necessary shade.

Toilets with a recirculating system such as monomatic, etc., 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 an existing spring and concrete storage tank for the beach area and from the C.L.A.W.A. storage tank for the rest of the area.

Seeley Creek which is in the Miller Canyon 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, 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 trail head parking will be located at the upper end of Miller Canyon. At

the lower end (Beach Area) a turnaround and parking for 3-4 buses and 2-3 cars will be provided for group use only.

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.

The beach area is at the lower end of Seeley Creek Area where the river meets the lake. The trail system beginning at Miller Canyon leads to the beach and Sawpit Canyon. A meadow area adjacent to the stream, studded with large oaks and pines, will be a favorite spot for the casual picnicker or hiker.

The main facility of this area is the East Beach development backed up by two group picnic areas 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, stoves will be on paved pads in two designated areas only. There will be a food preparation table, picnic tables, water and garbage containers at each group site.

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 small parking area is terraced along a gentle slope 1/4 of a mile from the beach at the terminus of the old Highway 138. A floating comfort station will be provided 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 138 at Cleghorn Cove through the Lower Mesa area a distance of approximately 1.6 miles.

An existing service road will be used jointly by the Crestline-Lake Arrowhead Water Agency as access to their pumping plant, the Department of Water Resources, and the Department of Parks and Recreation 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 90 family picnic units will soon be constructed in the meadow area. A loop road will be provided around the meadow so the meadow can be irrigated and 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.

#### 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 area 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 ~~restaurant~~, bait and tackle shop, fuel dock near the launch ramps and a snack bar at the <sup>Sawpit</sup> South Beach complex. This beach will be the main swimming area with approximately 1,000 linear feet of beach frontage for approximately 1,000 sunbathers and swimmers. A paved plaza, outdoor eating area, seating alcoves, comfort station, dressing-rooms, and lifeguard stands <sup>Sawpit</sup> 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.

#### BOATING

The maximum number of boats on Silverwood Lake, at any one time, will be approximately 300. The parking lot behind the six-lane launching ramp will park 179 cars with trailers and 16 single cars. The launching ramp and about one-half of this parking has already been constructed with D.N.O.D. funds. The marina facility is planned to accommodate 100 boats.

Sizing boating facilities is a difficult task. Usually boating facilities are primarily related to the size of the lake. Other factors influencing design quantities are:

- A. Surface acres at high pool (3354 foot elevation - 995 acres)
- B. Surface acres at low pool (3312 foot elevation - 700 acres)
- C. Drawdown schedule (high pool spring - low pool fall)
- D. Conformation of lake surface.
- E. Other uses
- F. Restricted areas (safety of boaters and swimmers)
- G. Estimated types of boating use (fishing, skiing, rowing, etc.)
- H. Areas available for parking trailers.
- I. Marina facilities
- J. Boater demand
- K. Turnover rate of boaters
- L. Extra cars per boat

At Silverwood, there is limited space for parking. The sizes of land fill at sawpit had to be reduced because the quantity of material available from the tunnel excavation did not meet the preconstruction estimates. In order to design a balanced facility, we decided to eliminate the overflow parking for boat trailers. This was initially planned to be in the middle of the picnic area.

The number of launching lanes was not changed. A boat retrieval rate of 6 minutes per boat is considered average. This would mean 10 boats/land/hour or 60 boats/ramp/hour, or 200 boats /3.5 hours. Thus the entire lake could be emptied of boats in 3.5 hours assuming no other boats launched. If other boats launched it would mean more boats to be retrieved and a slower rate of retrieval.

If we had cut the quantity of lanes to four, or fifty parking spaces per lane, it would take 5 hours to retrieve all boats. Five hours was considered too long, given the facts that brisk winds come up almost every afternoon during the main boater season at Silverwood.

The total number of boats on the lake at any one time will be approximately 300 or 3-1/3 acres/boat at high pool or 2-1/3 acres/boat at low pool. Boats will be excluded from areas around swimming beaches and intake structures. Ski boats will be restricted to a ski area for fast boating.

The marina capacity has been reduced by 20 at the request of the U. S. Forest Service. ~~The-U-S-F-S-will-work-out-concession-agreements-with-the-concessionaire.~~  
The lake might be able to handle more non-motor and small fishing boats, which would have to be docked at the marina. This will have to be determined after the reservoir is full and operational patterns are known.

Near the boat ramps will be a comfort station with a fish cleaning facility.

Sawpit

Seventy-eight picnic units in the South Beach complex with 287 parking spaces are proposed for this area.

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 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-four (74) picnic units with 88 parking spaces 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 the South Beach. An open play area of approximately 1½ 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 the wildlife enhancement area. 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 the West Fork Group Campground, ~~the Upper Mesa Campground, the Nature Area (fish and wildlife enhancement area)~~. The Lower Mesa Area ~~and the West Fork Family Campground~~ will be served by the main kiosk in the Lower Mesa Area.

fire station

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~~.

A Highway 138

#### 1. Upper Mesa Area

~~The U. S. Forest Service intends to have a concessionaire develop this 50 acre site as a class "A" pull-through trailer campground with electrical, sewer and water hookups.~~

The United States Forest Service had originally proposed to have a concessionaire develop 53 trailer campsites in the Upper Mesa Area. The sites would have electric, sewer and water hookups. In 1971, The Forest Service decided that they would abandon plans (at least temporarily) for the development of the trailer camp. Among the factors that led to this decision was the questionable economic feasibility of operating just 53 units. The terrain would limit further expansion. Also at the present time, there are several proposals for the development of large trailer parks within 5 miles of Silverwood Lake.

At this time, the State Department of Parks and Recreation does not propose any development for the Upper Mesa Area. The area is limited in size and at this particular location most types of recreation development would have a negative visual impact as viewed from Highway 138. Also, before any public recreation facilities are developed in this area the question of direct access to Highway 138 needs to be resolved.

## 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 340 cars will be provided and 220 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.

Of the 220, 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 and biking 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.

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.

With this approach the instantaneous carrying capacity of the recreation area will be:



5,460 people - day use

740 people - overnight use

A generous portion of the available space is allocated to day-use. Of the 5,460 day-use visitors, 840 will be in the Lower Mesa Area which is designated for day-use only under the Forest Service concept. When we consider this ratio of use together with the following factors, there appears to be reason to question the Forest Service concept.

- A. The Lower Mesa Area is located on a bluff 140 feet above high elevation. The area does not permit a good relationship between picnic site and water activities. The Lower Mesa Area will be the last of the picnic areas to fill with visitors - it will be the least used day-use area.
  
- B. The flat terrain in the Lower Mesa Area lends itself to economical campground construction. Little, if any, road frontage need be sacrificed because of parking spur grade problems. (Picnic sites can be developed on steeper terrain with only a slight increase in cost - not so with campsites.)
  
- C. The Lower Mesa Area (approximately 20 acres) will support about 140 picnic sites or about half this many well-spaced campsites. Access and utilities are already provided to the area. Conversion from picnic to camping use, providing individual sewer and water hookups are not installed, will not involve changes in the basic utility system.

- D. There is a shortage of campsites in the San Bernardino Mountain area and the climate at Silverwood Lake will attract camping use during all seasons of the year. Over a full year of use it is likely that the Lower Mesa Area, if developed for camping, will serve a greater number of people than if developed for picnic use.

The Department of Parks and Recreation will develop the Lower Mesa Area for camping rather than picnic use. The campground will be of the conventional Class "A" type. There will be approximately 75 campsites. Parking spurs will be of the 12' x 40' dimension to allow one car and one vacation trailer or two cars at each site. Waste water disposal sinks will be provided at strategic locations. Each of three 200 series combination buildings will have hot water showers. Coin-operated washing and drying machines will be provided at one of the buildings. These will be concession operated and maintained.

Because of summer heat and the high fire hazard, the turf areas and the landscaping originally to be provided in the day-use area will be retained. The general design of the area will permit people to flow from campsites through natural corridors to the rim overlook without the necessity of crossing traffic.

### 3. Nature Area

The wildlife enhancement area begins adjacent to upper Mesa and extends down Highway 138. 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 153 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 250 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.~~

The 1970 General Development Plan indicated that 153 family campsites would be developed in this area. Recent site studies indicate that the terrain will limit the development to a maximum of 100 campsites. Considering this factor

together with the high cost of providing an access road and utilities to the area, plus the expense of developing irrigated green belts for fire hazard reduction, there remains some question as to the feasibility of the development. The Department of Parks and Recreation will not recommend this facility be constructed without further study. The campground will be deleted from the 1973-74 Capital Outlay Budget.

## 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, and feeder streams ~~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 <sup>three</sup> 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 parking area and a ~~comfort station~~ combination building is 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 <sup>and irrigated grass</sup> planting will be necessary. This facility will be designed to serve family camping and picnic use and group picnic use when not in demand for group camping.

#### 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. There will be approximately 110 150 picnic units in this area.

The access road into the Cleghorn Cove and the North Beach will follow an existing firebreak where the trees have all been eradicated. There will be parking for 183 and 21 cars with trailers 220 cars in this area.

Lying halfway 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.

The outstanding attraction at Cleghorn Cove will be the ~~North~~ Beach. Second in size to ~~South~~ Beach it will accommodate approximately 800 swimmers and sunbathers. Behind the beach on the existing 20% slopes, picnic units will be terraced under the oak clumps and tall brush.

Lifeguard service will be provided at the sand beach. Emergency procedures will be coordinated by 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 near the beach.

To construct the ~~North~~ Beach, the existing slopes will be graded 6% - 10%. Washed sand will be imported and spread over the beach to a depth of 12 inches.

The ~~U-S-Forest-Service~~ public contact station and office will be located in the Lower Mesa Area. This site was chosen in order to provide adequate vehicle stack-up space.

~~Just-west-of-the-interchange-will-be-a~~ A public sanitation disposal station for the convenience of the trailer and camper owners will be constructed near the contact station.

#### 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.

In  
The-Forest-Service-may-see-the-need-in the future, for floating picnic-ski  
may be utilized  
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 7 units at Chamise,with-one-floating comfort-station, 37 units at the Live Oak Area,with-two-floating-comfort stations and 16 picnic units with-one-floating-comfort-station at Sycamore Landing. Two floating comfort stations with 4 water closets each will be provided in the vicinity of these picnic sites.

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

### 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.

## DEVELOPMENT STAGING

Staging: In the 1970 General Development Plan the Silverwood facilities are divided into five stages of development. The staging of development will depend upon the Department's staffing and planning capabilities and therefore is subject to change. It is the intent of the Department at this time to complete the development in three stages as indicated under the ~~the~~ ~~Facilities Summary~~ ~~included in this appendix:~~ essentially of public use facilities below:

### STAGE I

- A. Main recreation area access road.
- B. Sawpit day-use area
- C. Chamise, Live Oak and Sycamore landing boat-in picnic areas.

(Stage I now under construction - scheduled for public use beginning June 1973)

### STAGE II

- A. Cleghorn day-use area
- B. Miller Canyon day-use area

(Stage II now funded - bids received for construction of beaches at both day-use areas - scheduled for public use beginning June 1974)

### STAGE III

- A. Mesa campground

B. West Fork group campground

(The budget request for Stage III is currently being prepared. Assuming funding approval the development is scheduled for public use beginning June 1975)

FUTURE STAGES

The West Fork family campground has been omitted from the first three stages of development. If it is determined that this is a feasible and desirable facility, it will be constructed in a final stage of development. Also, it is expected that it will be necessary to provide additional interpretive facilities at Silverwood Lake in a final stage of development. The requirements for such facilities are currently being reviewed by the Department.

Note: Recreation area administrative facilities are currently funded. These facilities are scheduled to be constructed by the winter of 1973. Marine service facilities for the recreation operation (1973-74 F.Y. budget) are scheduled to be complete by the summer of 1974.

Concession facilities at the Sawpit Canyon day-use area are scheduled to be ready for use in the summer of 1973.

VISITATION AND CARRYING CAPACITY

Since the time the General Development Plan was printed much of the project has been planned in greater detail and the capacities for individual use areas differ from the earlier estimates. Facilities for the <sup>three</sup> ~~first two~~ stages of the development are now firm and these areas will accommodate ~~about 22%~~ less visitors than

that projected in the 1970 plan. While-detailed-planning-has-not-yet-been started-on-the-third-and-final-stage-of-development-it-is-anticipated-that-there will-be-a-reduction-of-facilities-equal-to-or-greater-than-that-indicated-in-the earlier-stages.

At Silverwood the instant carrying capacity will be predicated upon the number of cars or cars with trailers that can be parked at one time. Relatively few people will come to Silverwood by other means, i.e. bus, foot, horseback, bike, etc. Taking into consideration turn-over rates and seasonal use pattern, the daily and annual visitor attendance can be projected from the instant carrying capacity.

Changes in the instant carrying capacity are indicated below. Each double parking space (10' x 40') suitable to accommodate one car with boat trailer, is counted as one space.

Phase I - Sawpit Canyon Area (parking spaces)

	<u>1970 GDP</u>	<u>NOW</u>
Parking adjacent to boat ramp	200	195
Marina concession	130	83
Upper meadow picnic area	119	120
Beach area	308	287
Sawpit Creek	<u>120</u>	<u>82</u>
PHASE I TOTALS	<u>877</u>	<u>767</u>

Note: Drawings within the 1969 General Development Plan indicated 140 overflow parking spaces not included in above figures. However, overflow parking was not considered in the attendance projections listed within the narrative portion of the General Development Plan.

Phase II - Cleghorn and Miller Canyon Areas (parking spaces)

	<u>1970 GDP</u>	<u>NOW</u>
Miller Canyon group picnic area	95	66
Miller Canyon trailhead	75	54
Miller Canyon other (picnic & overlook)	95	0
Cleghorn picnic area	<u>257</u>	<u>200</u>
PHASE II TOTALS	<u>522</u>	<u>320</u>
PHASE I AND II TOTALS	1,399	1,097

Phase III (parking spaces)

	<u>1970 GDP</u>	<u>NOW</u>
Lower Mesa picnic area	342	0
Upper Mesa trailer campground (concession)	53	0
West Fork family campground	155	0
West Fork Group campground	184	90
Lower Mesa family campground	0	76
PHASE III TOTALS	<u>734</u>	<u>166</u>

TOTALS

	<u>1970 GDP</u>	<u>NOW</u>
Phase I	877	767
Phase II	522	320
Phase III	734	166
PHASE I, II, & III TOTALS	<u>2,133</u>	<u>1,253</u>
Total Phase I, II, & III day use	1,741	1,087
Total Phase I, II, & III overnight	392	166

Using an average of 4.3 people per car (per U. S. Forest Service recreation use information March 1971, San Bernardino National Forest) and a turnover factor of 2.0 for day-use facilities, the daily carrying capacity for all facilities at Silverwood Lake is estimated at ~~13,000~~ 10,000 people. This will generate approximately 1,200,000 ~~1,500,000~~ recreation days per year.

COST OF DEVELOPMENT

The preliminary cost estimate for the full development (made in 1969 by the Department of Parks and Recreation) was \$6,671,000. This figure was based on 1969 price levels. 6.8 million dollars have been earmarked for the project from the Recreation and Fish and Wildlife Enhancement Bond Act Funds. The Department of Parks and Recreation has indicated to the U.S. Forest Service that under present funding capabilities no additional funds can be expected for the development of facilities at Silverwood. The first stage development is estimated to cost \$2,900,000 and the second stage is estimated at \$1,615,000 for a total of \$4,515,000. This leaves \$2,285,000 remaining for the third phase development. All indications are that this remaining sum will be less than enough to carry out the scope of the third phase development as outlined herein.

The current cost estimate for development of the three (3) stages of facilities as outlined herein is as follows:

STAGE I	\$2,900,000
STAGE II	1,773,000
STAGE III	<u>1,000,000</u>
Sub Total	\$5,673,000
Ramps & Docks (DNOD)	158,000
Off-site Sewer	<u>402,000</u>
TOTAL	\$6,233,000

FACILITIES SUMMARY

STAGE I

Sawpit Canyon

TYPE OF FACILITY

Proposed

Day Use

Picnic Units . . . . .	241
Swimming Beach . . . . .	1
Picnic & Beach Parking Spaces . . . . .	495
Boat Launching Ramps (6 Lanes) . . . . .	1
Fish Cleaning Facility . . . . .	1
Car/trailer Parking Spaces . . . . .	195
Trails (in miles) (paved) . . . . .	3.5
Marina Concession Parking Spaces . . . . .	83

Other Areas

Miscellaneous Facilities

Contact Station . . . . .	1
Service Yard & Administrative Area . . . . .	1

Boat-in Areas

Day Use

Boat-in Picnic Units (3 areas) . . . . .	60
Ski-beach . . . . .	1

STAGE II

Cleghorn Cove

TYPE OF FACILITY

Proposed

Day Use

Picnic Units . . . . .	110
Parking Spaces . . . . .	220
Swimming Beach (300 L.F.) . . . . .	1
Lifeguard Stands . . . . .	2
Foot Trails (in miles) (paved) . . . . .	1.4
Contact Station. . . . .	1

Miller Canyon Area

Day Use

Group Picnic Sites . . . . .	5
Swimming Beach . . . . .	1
Hiking and Biking Trails (in miles) (paved). . . . .	1.8
Parking Spaces . . . . .	120
Foot Bridges . . . . .	3
Contact Station . . . . .	1



STAGE III

West Fork Group Camp

TYPE OF FACILITY

Proposed

Overnight Use

Group Camp Areas . . . . .	3
Group Camp Units . . . . .	90
Parking Spaces . . . . .	90
Cooking Shelters . . . . .	3
Trails (in miles) (paved) . . . . .	1.0

Lower Mesa Family Campground

Overnight Use

Camp Units . . . . .	76
Parking Spaces (12' x 40' spurs) . . . . .	76
Trails (in miles) (paved) . . . . .	1.7

MISCELLANEOUS FACILITIES

Marine Service Area . . . . .	1
Bike and Hike-in Camp Units . . . . .	7