UNIT 534

BOLSA CHICA STATE BEACH

DRAFT GENERAL DEVELOPMENT PLAN
(not approved)

February 1970
BOLSA CHICA
STATE BEACH

GENERAL DEVELOPMENT PLAN

STATE OF CALIFORNIA - THE RESOURCES AGENCY
DEPARTMENT OF PARKS AND RECREATION
BOLSA CHICA STATE BEACH

GENERAL DEVELOPMENT PLAN

Prepared by

MASTER PLANNING BRANCH

FEBRUARY 1970

NOT APPROVED

AND SUBMITTED TO

This commitment

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
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.

[Signature]

James E. Warren, Chief
Planning and Development Division

Attachments
May 19, 1970

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

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 Ansprech, 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 Wata 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.
Shan'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 Nott, Jr.
Director
October 17, 1973

Weekly Check SB

Daily Pilot
Post Office Box 1560
Costa Mesa, California 92626

Attention Ms. Candy Pearson

Dear Ms. Pearson:

In response to your telephone call of October 16, 1973, we are sending you a copy of our reduced general development plan, drawing #12586, showing the facilities for which we applied to the California Coastal Control Zone Commission on October 15, 1973 for a permit to construct. As you are probably aware, this permit was denied.

The facility would have provided approximately 150 additional car parking and an additional permanent sanitary facilities.

Since the permit is denied, we have not at this time determined how we will proceed; however, the denial means there will be a delay of some months in providing these facilities for the public.

If we can help you with additional information, please feel free to request this from Mr. White of my staff at (916) 445-7257.

Sincerely,

ORIGINAL SIGNED BY

ROBERT F. UHTE

Robert F. Uhte, Chief
Design and Construction Division

K-3a/9

Enclosure

cc: Mr. R. Hines
JFT
This report was prepared under the supervision of:

Richard A. May . . . . . . . . . . . . . . . . Branch Manager
H. Lee Warren . . . . . . . . . . . . . . . . Supervising Landscape Architect

by

Project Manager

Emmett U. Blanchfield . . . . . . . . . . . . . . Senior Landscape Architect

Assisted by Planning Team

1 William P. Dougherty . . . . . . . . . . . . . State Park Ranger IV
2 Ross T. Henry . . . . . . . . . . . . . . . . Recreation Planner III
3 Eugene R. Junette . . . . . . . . . . . . . . . . State Park Ranger III
4 Kenneth L. Mitchell . . . . . . . . . . . . . Assistant Landscape Architect
5 Gregory L. Wapinsky . . . . . . . . . . . . . Assistant Landscape Architect
6 William A. Winders . . . . . . . . . . . . . . State Park Ranger V
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Summary</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTRODUCTION</strong></td>
<td>1</td>
</tr>
<tr>
<td>Location</td>
<td>1</td>
</tr>
<tr>
<td>Size</td>
<td>1</td>
</tr>
<tr>
<td>Acquisition</td>
<td>1</td>
</tr>
<tr>
<td>Potential Use</td>
<td>2</td>
</tr>
<tr>
<td>Summary of Facilities</td>
<td>3</td>
</tr>
<tr>
<td>Land Carrying Capacity</td>
<td>3</td>
</tr>
<tr>
<td><strong>NEED</strong></td>
<td>4</td>
</tr>
<tr>
<td>Population</td>
<td>4</td>
</tr>
<tr>
<td>Recreation Demand</td>
<td>4</td>
</tr>
<tr>
<td><strong>THE PLAN FOR DEVELOPMENT</strong></td>
<td>6</td>
</tr>
<tr>
<td>The Resource</td>
<td>6</td>
</tr>
<tr>
<td>Existing Situation at the Beach</td>
<td>6</td>
</tr>
<tr>
<td>Existing Parking Situation</td>
<td>6</td>
</tr>
<tr>
<td>Existing Improvements to be Retained</td>
<td>7</td>
</tr>
<tr>
<td>Existing Improvements to be Removed</td>
<td>7</td>
</tr>
<tr>
<td>Circulation.</td>
<td>8</td>
</tr>
<tr>
<td>Parking.</td>
<td>9</td>
</tr>
<tr>
<td>Promenade.</td>
<td>10</td>
</tr>
<tr>
<td>Sand Retention Wall</td>
<td>10</td>
</tr>
<tr>
<td>Sanitary Facilities and Dressing Rooms</td>
<td>10</td>
</tr>
<tr>
<td>Public Services</td>
<td>11</td>
</tr>
<tr>
<td>Child Play Areas</td>
<td>11</td>
</tr>
<tr>
<td>Overnight Facilities</td>
<td>11</td>
</tr>
<tr>
<td>Safety and Control</td>
<td>11</td>
</tr>
<tr>
<td>Planting.</td>
<td>12</td>
</tr>
<tr>
<td>Utilities.</td>
<td>12</td>
</tr>
<tr>
<td>Maintenance Facilities</td>
<td>12</td>
</tr>
<tr>
<td>Staging of Development</td>
<td>13</td>
</tr>
<tr>
<td><strong>COST OF FULL DEVELOPMENT</strong></td>
<td>14</td>
</tr>
<tr>
<td><strong>OPERATION</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>SPECIAL CONSIDERATIONS</strong></td>
<td>17</td>
</tr>
<tr>
<td>Proposed off-shore island for nuclear desalting plant and connecting causeway</td>
<td>17</td>
</tr>
<tr>
<td>Bolsa Bay Harbor development proposals</td>
<td>18</td>
</tr>
<tr>
<td>Abandonment of Pacific Coast Highway</td>
<td>19</td>
</tr>
</tbody>
</table>
SUMMARY

Bolsa Chica State Beach is a favorite surfing and swimming area for the Los Angeles metropolitan area. Its location is four miles south of the City of Long Beach, with convenient freeway and highway access, accounting for an attendance in fiscal year 1968-69 of almost one million beach users.

The State Beach is an elongated strip of sand three miles in length with an average width of 200 feet. It is separated from the paralleling state highway by private land averaging 100 feet in width the full length of the state ownership. The only public access to the Beach is at the upper end at Warner Avenue some 300 feet seaward of the state highway.

The State has partially developed Bolsa Chica Beach to a two lane paved access road one and one-third miles in length, 456 automobile parking spaces, a water system to drinking fountains and outdoor cold water showers spaced along the parking strip, and portable lifeguard stands and a temporary central lifeguard control tower. The lower one-half of the beach remains undeveloped.

The Beach has the potential to accommodate over 14,000 persons at any one time when fully developed. The present development is limited to parking space to accommodate about 1800 persons. To attain maximum use of the State Beach it will be necessary to acquire the private property (former Pacific Electric right of way) in the amount of 39.64 acres. Further, a major entrance with fee collection stations, interior road system and parking areas to accommodate 2200 vehicles must be developed. A central administrative area with a lifeguard control tower is to be located at
the entrance to the unit with 28 lifeguard stands spaced equidistant along the beach. There are 14 comfort station and change rooms planned along the beach promenade. Also, 5 concession buildings providing services for food and sundries and beach equipment rentals are planned.

The existing permanent improvements such as roads and parking and water will remain. The addition of capital improvement cost is estimated at $6,905,000. Operating costs are estimated to be $545,000 annually and would be offset 50% or more by revenue.
INTRODUCTION

Bolsa Chica State Beach serves the public as an ocean beach recreation area for enjoyment of surf and sand activity. It is classified as a State Beach in accordance with provisions in the Public Resources Code.*

Location

The beach is located on San Pedro Bay approximately 4 miles south of the City of Long Beach. It is within the upcoast corporate limits of the City of Huntington Beach in Orange County. Its northerly limits extend from the community of Sunset Beach at Warner Avenue downcoast to the Huntington Bluffs, a distance of 3 miles. It is within an hour's driving distance from the Civic Center of Los Angeles and about 15 minutes from the downtown area of Long Beach.

Size

The General Development Plan includes a total area of 85.30 acres. The present State ownership amounts to 45.66 acres. With additional acquisition, now underway, the beach unit will increase in average depth from 200 feet to 300 feet.

Acquisition

Initial acquisition of 45.41 acres was made in 1961 from funds approved in the 1956 Legislature. This acquisition involved the beach frontage from Warner Avenue downcoast to Huntington Beach northerly city limits at the bluff, and inland to the Pacific Electric Railway Company right of way.

In 1967, an additional 0.25 acre consisting of a portion of the Pacific Electric right of way was added at the north end of the State Beach to provide for adequate State Beach access at Warner Avenue.

* Public Resources Code, Section 5001.5
The 1966 Legislature appropriated funds from the 1964 State Park Bond Act to acquire the remainder of the former Pacific Electric Railway Company right of way paralleling the State Beach. The acquisition project totals 39.64 acres. Acquisition is now in litigation.

Potential Use

Bolsa Chica State Beach provides a place for the public to "go to the beach" for surfing, swimming, wave jumping, suntanning, beach strolling, games activity (volleyball, medicine ball tossing, and children's play area) a place to beat the valley heat and a place for reading and relaxing in a cooling and refreshing environment. Because the public uses the beach for this form of recreation the facilities shown on the plans have been selected to allow for an adequate convenience, enjoyment and safety. The beach is designed to accommodate approximately 14,000 people at peak use. During a busy weekend or holiday there may be as many as 35,000 persons who will have visited the beach during the course of the day. This is based on an anticipated turnover rate of one and one-half times. The bulk of the visitors to Bolsa Chica come from the Los Angeles Metropolitan Area.

Summary of Facilities

The total proposed development includes:

1. Road system and parking for 2,227 cars and 27 buses.
2. Comfort stations-change rooms and sewage disposal system.
3. Picnic facilities.
4. Utility hook-ups for overnight use.
5. Promenade walk and sand retention wall.
7. Beach administration building, entrance station including collection devices.
8. Communication system for emergencies.
9. Lifeguard facilities.
11. Planting for sand drift control, highway screening, and aesthetics.
12. Water supply and distribution system.
13. Electrical supply and distribution system.
14. Signs and warning devices.

Land Carrying Capacity
The width of the usable sand beach at Bolsa Chica varies from year to year, as do other beaches along the California coast, from storm action and littoral drift. Based on a 5-year periodic sand replenishment program, it is estimated that an average of one and one-half million square feet of usable sand beach will be available on a year-to-year basis. The sand area from the promenade walk to the crest of the tidal berm is the actual stationary use area of the beach and about 14,000 people constitute the maximum carrying capacity of such a use area at any one time. The carrying capacity of the beach was determined on the basis of 100 square feet per person. The remaining area is devoted to access roads, parking, and service facilities.
Population
Orange County is the fastest growing county in California. It holds the record in the United States for the greatest development growth rate. It is on the fringe of the Los Angeles Metropolitan Complex (Los Angeles, Orange, Riverside, and San Bernardino counties.)

The existing and projected population* of this metropolitan complex is:

<table>
<thead>
<tr>
<th>Year</th>
<th>1969</th>
<th>1980</th>
<th>1985</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9,553,200</td>
<td>12,730,400</td>
<td>14,152,900</td>
</tr>
</tbody>
</table>

Recreation Demand
The recreation demand of the residents of this metropolitan complex is increasing faster than the population growth. The Los Angeles Metropolitan Complex, which will exert the greatest pressure on this area, is expected to realize a 67% population increase between 1960 and 1980. The recreation demand is expected to increase 92% or 1.37 times the population growth during this twenty-year period, the recreation demand for swimming is expected to increase 110%.

A survey at Huntington State Beach, 5 miles downcoast of Bolsa Chica, during 1969 indicated that 97% of the use was from the Los Angeles Metropolitan Complex.

The deficiency of public beaches in the Southern California area and near the Los Angeles Metropolitan Complex is critical. Urbanization and lack of access has limited the availability of beaches for public use.

In 1968 Los Angeles County beaches had an attendance of over 60 million. Attendance at Bolsa Chica State Beach has grown from 254,000 in FY 1964-65 to 802,000 in FY 1968-69, an increase of nearly 200% in five years.

* Department of Finance.
With development, Bolsa Chica can expect an attendance equivalent to that of Huntington State Beach which had 1,455,000 visitors in FY 1968-69.

The downcoast area of Bolsa Chica is a popular surfing area. There are presently between 300,000 and 350,000 surfers in the Southern California area. This number is increasing at nearly 12% a year. It is expected that there will be one million surfers in California by 1980.
THE PLAN FOR DEVELOPMENT

The Resource

The sand beach is the major public attraction and the basic resource at Bolsa Chica. The proposed development centers around beach use. All other activities are secondary in terms of public use.

Existing Situation at the Beach

Bolsa Chica Beach is an excellent sandy beach, but beach stability is a continuing problem along the Southern California coastline and in recent years the beaches have, on occasion, suffered loss of sand through storm action. To offset this problem, the Corps of Engineers, in conjunction with the State and local agencies, initiated beach erosion control measures. In 1964 the Corps stockpiled, in the upcoast area at Surfside, about 4 million cubic yards of sand. This stockpile feeds the beaches through downcoast littoral drift. Approximately 200,000 cubic yards of sand are assumed to move downcoast annually from Anaheim Bay to Newport Bay. Bolsa Chica Beach is a recipient of this downcoast sand replenishment action.

Existing Parking Situation

Present parking facilities are not sufficient to meet parking demands. Those beach visitors who are unable to find a parking space within the State facility either compete for curbside parking in the upcoast community of Sunset Beach and walk into the State Beach, or park parallel on both sides of the State Highway the full 3 mile length of the beach. Those parking on the State Highway
are endangered by the high speed traffic movement. This General Development Plan will reduce such problems by providing:

1. Adequate parking.

2. Protective fencing along the State Beach property to discourage the practice of walking into the State Beach from Highway parking and to protect children from darting out into highway traffic.

3. A passenger walk-in dropoff at the upcoast end at Warner Avenue. The Division of Highways should be asked to restrict the parking on the State Highway to emergency stops only.

Existing Improvements To Be Retained

The upcoast section of the State Beach is accessible from Warner Avenue. In 1967 the State Division of Highways, acting as an agent for the Department of Parks and Recreation, completed under contract a 2-lane beach access road about one and one-third miles in length, 456 automobile parking spaces and a water system running the full length of the parking development. This work was done through funds provided by the 1961 Legislature in the amount of $132,290. The major portion of this work is incorporated in the General Development Plan.

Existing Improvements To Be Removed

All of the following facilities will be replaced by permanent development:

1. A fee collection and day use ticket dispensing box at the Beach entrance.

2. Portable single unit chemical toilets along the Beach adjacent to the parking areas.

3. A central temporary lifeguard control tower at the lower terminal of the access road.
4. Portable lifeguard stands along the length of the Beach.
5. Drinking fountains and open showers at ten places along the parking areas.

Circulation

The Division of Highways recently completed an improvement to the Pacific Coast Highway paralleling the State Beach to a four-lane road with a curbed median. In addition, the new expressway has openings in the median at intervals along the three-mile section for left turn movements, as well as parallel parking on both sides of the full three-mile length. Traffic moves at a 65-mile an hour speed.

To provide for safe ingress and egress, the entrance and principal exit to the State Beach is planned at a midway point along the Beach. This location, besides being central for traffic distribution within the unit, provides for good sight observation distance for vehicle operators. The Division of Highways will install a traffic control signal system at the entrance regulating highway as well as State Beach traffic with costs to be financed from the beach development project.

Entering the State Beach, the motorists will have a distance of 500 feet to drive before reaching the entrance station where collection of a fee will be made. The roadway broadens at the entrance station to four lanes to speed up traffic on days of heavy use. Within this 500 foot distance it will be possible to provide moving entrance back-up space for approximately 75 vehicles at any one time.
From the entrance station, the Beach visitor will have a choice of direction up or down the Beach to parking spaces. The circulation roadway parallels close to the State Expressway with access to parking areas on the beach side. This system of roadway and parking area layout allows the operation personnel to open and close areas of the Beach during peak and slack periods in accordance with visitor use and Beach maintenance requirements.

In addition to exit provisions at the single entrance, two additional exits are provided at the extreme ends of the circulation road, the upcoast exit at Warner Avenue where traffic signals permit safe highway merging and the lower end where the traffic movement will be southbound only. Emergency entrances at these two secondary exits are provided for police and ambulance vehicles only.

Another feature in the visitor access to the beach is the turnaround passenger dropoff at Warner Avenue. This provides opportunity for beach visitors to walk into the State Beach without using the parking facilities.

Walk-in beach attendance is estimated to be 25 percent of the total visitor use.

Parking

Parking area capacity was determined on the basis of 4 persons per automobile. An average passenger load of 40 persons per commercial bus is considered as a part of the anticipated use.

Parking facilities provide for a maximum of 2,227 cars transporting 9,100 persons, and 27 commercial bus spaces with 1,080 persons. With an estimated walk-in attendance of 3,810 persons, the estimated total attendance amounts to about 14,000 and the General Development Plan is based upon such calculations.
During peak weekends and holidays a turnover factor of one and one-half times could increase total daily use to 35,000 persons.

Promenade

From the parking area, the beach user will have the opportunity to walk parallel to the beach on a promenade walk along the entire length of the Beach. The promenade averages 20 feet in width. This will allow for the use of an "elephant train" people-mover to provide for sightseers as well as for the distribution of people along the beach.

Sand Retention Wall

A sand retention wall is proposed on the ocean side of the promenade walk. This low, three foot high wall is intended primarily to control sand drift from the beach to the walk, parking, and building areas. Secondarily, it will act as a barrier to surf overflow during periods of extreme high tide.

Sanitary Facilities And Dressing Rooms

Fourteen comfort stations and dressing room buildings will be spaced approximately 800 to 1000 feet apart along the promenade between the parking areas and the sand beach.

During periods of extreme high tide, the crest of the beach has experienced surf overflow. To provide protection from ocean inundation to these buildings as well as to the concession buildings, each building site is planned to be built on a terrace raised to elevation of 13 feet above mean high tide.
Public Services

Five building sites, spaced evenly along the beach, will provide for snack bars, beach equipment rental and sundry sales essential to beach users.

On the terraces surrounding the snack bars will be tables and benches with planting for people to picnic and to enjoy snacks.

Child Play Areas

Five children's play areas will be spaced along the beach on the ocean side of the sand retention walls. These play areas will be secured by the sand retention walls and an open vinyl fence enclosure. Play sculpture, swings, slides and other recommended play equipment will be provided.

Overnight Facilities

This State Beach is being used during the entire year; however, the peak use period occurs during the summer vacation months. Provisions are made in the design of parking areas for use by overnight travel trailers and pickup campers during periods of slack day use. This will provide accommodations for a peak overnight use of about 1,600 persons. Spaces for 248 travel trailers and single vehicle campers with utility hookups, and spaces for 156 trailers and campers without utility hookups, are incorporated in the design for the parking areas upcoast from the office. In addition the 800 single car parking spaces and 27 bus parking spaces, located downcoast from the office, can be made available for overnight use if the demand justifies the alternate use of this space. These accommodations will provide a greater all-year use of the State Beach.

Safety And Control

A 6-foot chain-link fence for public safety and security control will be built paralleling the State expressway the full length of the State Beach as well as along Warner Avenue. Gates will be installed at each road and walkway openings and will provide for control during closed periods.
An administrative office, first aid room and central lifeguard tower is proposed in one structure central to the beach area at the Beach entrance. Twenty-eight lifeguard stands will be spaced at regular intervals along the Beach.

A public address system is planned with control established at the central lifeguard tower. Since the beach will be open for evening use past sunset, the plans include night lighting of the parking areas and sand beach. Lighting is important from the standpoint of visitor safety and security from property damage.

**Planting**
Planting is proposed as a means to control sand blow and to create a pleasing effect throughout the developed portion of the unit. Screening of the beach from the State Highway will be done with plant materials.

**Utilities**
All utilities including water, sewer, electricity, telephone and natural gas are available from communities adjacent to the north and south ends of this unit. Nearly 3 miles of utility lines will be needed to serve the entire unit. All utilities will be underground.

**Maintenance Facilities**
Competition for beach space for public use demands that all maintenance facilities be located away from the beach.

Vehicle storage, warehousing and all other miscellaneous service equipment and supplies can be conveniently located to serve both Bolsa Chica and Huntington State Beaches. The present service center at Huntington State Beach will serve Bolsa Chica on an interim basis. A more adequate service center to serve both Huntington and Bolsa Chica State Beaches would be on the inland side of the
proposed Pacific Coast Freeway adjacent to the crossing of the Santa Ana River. Preliminary plan reviews have been held with the Division of Highways concerning this proposal. Highways informally agrees to the use of the freeway right of way for this purpose.

Continued contact with Highways should be maintained concerning the future service center. Budget proposal should be made to coordinate with the freeway construction.

**Staging of Development**

Demand for use of the facilities now being planned for Bolsa Chica State Beach justify the total development as soon as possible. However, budgetary restraints may make this impossible. The General Development Plan permits the selection of segments of the design in accordance with less than total budget appropriations. There are thirteen parking bays including the proposed entrance and headquarters area that lend themselves to a flexible program in establishing development continuity.
COST OF FULL DEVELOPMENT

The total cost of development of the Bolsa Chica State Beach project, for both the State and private sector, including the initial purchase price of equipment to operate the project is estimated at $6,905,000.*

* This figure is a preliminary estimate by the Department of General Services, Office of Architecture and Construction, based on General Development level planning studies. It also includes estimates by the Department of Parks and Recreation for initial equipment cost. Estimates are based on 1969 price levels. Additional detailed planning by the Office of Architecture and Construction, will result in more accurate cost estimates for individual capital outlay projects staged from the General Development Plan.
It will take $545,000 annually to operate and maintain the facilities delineated in this plan which provides for full development of Bolsa Chica State Beach.

Operating funds are broken down into $245,000 for permanent personnel, $240,000 for seasonal personnel, and $60,000 for operating expenses. The present cost of operating this unit annually is approximately $32,000.

Extremely heavy use commences about the beginning of April and continues to the first of October. During this season the beach will receive intensive visitor use and all facilities and services will be operating at peak load. The beach will be open until midnight from Easter through September. During the peak use season operation will require in excess of four seasonal employees per each permanent employee.

The off-season lasts from around October 1 through the end of March. During this period the beach will receive intensive use on warm sunny weekends. Overnight camping will be allowed by self-contained camping vehicles on the parking areas during this period. The lifeguard and patrol programs will diminish but not cease during the off-season and attention will shift to maintenance and repair of facilities and preparation for the next intensive use season. Seasonal employees will be needed primarily for special weekends or holidays.

Beach operation is more expensive than the operation of other types of day use areas because of the need to provide lifeguard services; the necessity to clean up regularly the seaweed and debris deposited by the surf; enforcement and safety problems relating to extreme concentration of large numbers of people; and the maintenance is increased and complicated by the corrosive effects of salt water. It should be understood that these high cost factors are offset by the higher percentage of revenue to operating costs at beach units of this type.
The yearly operational cost breakdown for additional staff and operating expenses necessary to operate Bolsa Chica State Beach are estimated at:

<table>
<thead>
<tr>
<th>Staff</th>
<th>Existing</th>
<th>Additional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent</td>
<td>43.4 MM</td>
<td>364.7 MM</td>
</tr>
<tr>
<td>Seasonal</td>
<td>87.6 MM</td>
<td>467.4 MM</td>
</tr>
<tr>
<td>Operating Expense</td>
<td>10,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Sub Totals</td>
<td>$82,000</td>
<td>$463,000</td>
</tr>
<tr>
<td>Total anticipated Operating Costs</td>
<td>$545,000</td>
<td></td>
</tr>
</tbody>
</table>

* For anticipated Staffing Needs, see Appendix A
SPECIAL CONSIDERATIONS

Proposed Off-shore Island for Nuclear Desalting Plant and Connecting Causeway.

The 1967 Legislature granted to the Metropolitan Water District of Southern California certain tide and submerged lands off of Bolsa Chica State Beach for purposes of developing and operating a nuclear desalting plant. This Act, Chapter 1520, further grants an easement over lands of Bolsa Chica State Beach of 600 feet in width for purposes of constructing a causeway to reach the island. The causeway is not to exceed a width of 65 feet at the top and a maximum of 95 feet at the bottom. Following completion of the causeway, the District is to quitclaim to the State all lands in the easement in excess of 75 feet from the centerline on both sides of the easement. In addition, the Act grants an easement of 1,000 feet in length and 15 feet in width of State Beach land for the purpose of the construction of a deceleration and an acceleration lane for ingress and egress to and from the causeway with the State Highway.

This project was originally a multiparty arrangement with the U.S. Department of the Interior as a part financial backer and participant. First bids received on the project in 1967 were excessively high, resulting in a pull out of Metropolitan's Partners. Recent decisions by the Board of Directors of Metropolitan Water District indicate that they will attempt to "go it alone" financially in the development of the water desalting facility. Tentative plans are for construction to commence on the dredging for Bolsa Island during 1974-75. Estimated operation date of the desalting plant is 1980.

If the Metropolitan Water District is successful in financing the desalting project, construction of the causeway will eliminate about 60 planned automobile parking spaces. The causeway would cross at about midway in one of the parking areas located approximately one-half mile downcoast from Warner Avenue.
The Legislative Act includes provisions for access to both sides of the causeway. The solution to this problem must come when design of the causeway is commenced to insure that adequate State Beach access is incorporated into the causeway plan.

**Bolsa Bay Harbor Development Proposals**

Bolsa Chica is part of a low-lying coastal plain interrupted by two depression areas referred to as Sunset Gap and Bolsa Gap. The two gaps have extensive marsh lands. The water areas of these two gaps are normally called Sunset Bay and Bolsa Bay.

Bolsa Bay, located immediately inland and across the coast highway from the State Beach, does not have a direct outlet to the ocean. Early day dredging of a channel connected Bolsa Bay to Sunset Bay causing a silting or blockage of the natural channel opening. The U. S. Army Corps of Engineers, Los Angeles District Office, is currently investigating the feasibility of a channel entrance and harbor development of Bolsa Bay. Studies have been underway since 1965. A feasibility report is due for completion in June 1971. Preliminary studies indicate that a channel entrance approximately 1,000 feet in width could be proposed to breach Bolsa Chica State Beach on the downcoast side of the proposed Bolsa Island and causeway. The Corps of Engineers suggests that if the report indicates the channel entrance and harbor development is feasible, Congress could appropriate funds for construction commencing some time between 1975-77.

The effect of the channel entrance to the State Beach would be the elimination of about 550 car parking spaces, approximately 1,200 feet of beach and splitting the State Beach operation physically into two separated units.

A solution to this problem would be mitigation for State Beach loss to be recaptured in recreation lands and development fronting on Bolsa Bay. Close
coordination between the Corps of Engineers and the State Department of Parks and Recreation is essential to insure that well designed and adequate recreation facilities and land become a part of an overall design for Bolsa Bay Harbor development for State ownership and operation.

Abandonment of Pacific Coast Highway

The Master Plan of Highways for Orange County proposes the routing of the future "Pacific Coast Freeway" inland approximately one mile from Bolsa Chica State Beach. After construction of the freeway, local streets, as well as the existing Pacific Coast Highway, will take the full load of moving vehicles from and to the freeway and to and from the beaches. The Master Plan further proposes a new location of the Pacific Coast Highway paralleling somewhat the freeway.

The new highway will perform its function in the role of moving through traffic. The existing State highway will then function to move local traffic and beach traffic. With abandonment of the existing State highway, following its replacement, the Division of Highways may transfer it in fee to either the City of Huntington Beach or to Orange County.

Should the development of Bolsa Bay to boat harbor facilities become a reality, preliminary studies by the Corps of Engineers indicate that the State Beach may be enlarged to include both sides of the present State highway, with development of the channel entrance to Bolsa Bay, the present highway would dead-end at both sides of the channel. In this event the State highway, where bounded on both sides by the State Beach, should become a part of the State Beach ownership. This will allow for operational control as well as permitting control in redevelopment of the State Beach.

This matter should be resolved with the State Division of Highways, the City of Huntington Beach and Orange County at some future date.
### FACILITIES AND COST SUMMARY

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Existing</th>
<th>Proposed Additions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking (Serving Daytime Beach Use)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automobile</td>
<td>456</td>
<td>1,723</td>
<td>2,179</td>
</tr>
<tr>
<td>Bus</td>
<td>0</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Camping (Alternate use of parking area)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel Trailer</td>
<td>0</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Camper Vehicle (Single vehicle)</td>
<td>0</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>Picnicking (Located at each of 5 concession sites)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual Tables</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Comfort Stations with Dressing Rooms (Cold water)</td>
<td>0</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Shower Building and Laundry (Hot water)</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Concession Buildings (Snack bar and beach equipment rental)</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Entrance Checking Stations</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Administration Building</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Lifeguard control Tower</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Portable Lifeguard Stands</td>
<td>0</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Promenade Walk and Sand Retention Wall (Miles)</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Children's Sand Play Areas</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Development Cost</strong></td>
<td></td>
<td></td>
<td>$6,905,000</td>
</tr>
<tr>
<td><strong>Estimated Yearly Operations Cost</strong></td>
<td>$82,000</td>
<td>$463,000</td>
<td>$545,000</td>
</tr>
<tr>
<td><strong>Annual Revenue</strong></td>
<td>$15,000</td>
<td>$253,000</td>
<td>$268,000</td>
</tr>
<tr>
<td><strong>Attendance (Number of people)</strong> (FY-1968-69)</td>
<td>802,000</td>
<td>653,000</td>
<td>1,455,000</td>
</tr>
</tbody>
</table>
## APPENDIX A

### Staffing Needs

(In Man Months)

<table>
<thead>
<tr>
<th>Permanent Staff</th>
<th>Existing</th>
<th>Additional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranger III</td>
<td>4.6</td>
<td>12</td>
</tr>
<tr>
<td>Ranger II</td>
<td>12.7</td>
<td>68.3</td>
</tr>
<tr>
<td>Ranger I</td>
<td>10.2</td>
<td>12</td>
</tr>
<tr>
<td>Lifeguard</td>
<td>1.5</td>
<td>39.4</td>
</tr>
<tr>
<td>Lifeguard Supervisor I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Park Maintenance Supervisor I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Park Maintenance Man II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Park Maintenance Man I</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Park Maintenance Assistant</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Auto Mechanic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment Operator</td>
<td>1.7</td>
<td>12</td>
</tr>
<tr>
<td>Lead Groundsman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groundsman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rescue Boat Operator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security Watchman</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sub-Total Permanent Staff 43.4 364.7

Total Permanent Staff 408.1

### Seasonal Staff

<table>
<thead>
<tr>
<th>Seasonal Staff</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>State Park Ranger (Inter.)</td>
<td>8</td>
<td>34.1</td>
</tr>
<tr>
<td>Park Aid</td>
<td>9.4</td>
<td>121.1</td>
</tr>
<tr>
<td>Lifeguard</td>
<td>64.1</td>
<td>228.7</td>
</tr>
<tr>
<td>Clerk Typist I</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Lifeguard Supervisor</td>
<td>2.5</td>
<td>36</td>
</tr>
<tr>
<td>Maintenance Aid</td>
<td>3.6</td>
<td>43.5</td>
</tr>
</tbody>
</table>

Sub-Total Seasonal Staff 87.6 467.4

Total Seasonal Staff 555

TOTAL STAFF (At Full Development) 963.1