

**UNIT 272**

**CARNEGIE STATE VEHICULAR RECREATION AREA**

**GENERAL PLAN**

**December 1981**

# CARNEGIE

## STATE VEHICULAR RECREATION AREA

# GENERAL PLAN

Draft of Preliminary

August 1981

Edmund G. Brown, Jr.  
Governor of California

Huey D. Johnson  
Secretary for Resources

Pete Dangermond, Jr.  
Director  
Department of Parks and Recreation



State of California - The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
P.O. Box 2390  
Sacramento, California 95811

CARNEGIE  
SVRA

STATE OF CALIFORNIA—THE RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF PARKS AND RECREATION

P.O. BOX 2390  
SACRAMENTO 95811

(916) 324-1395



September 16, 1982

TO HOLDERS OF THE PRELIMINARY GENERAL PLAN FOR  
CARNEGIE STATE VEHICULAR RECREATION AREA,  
AUGUST 1981:

The enclosures are the addendum to the Preliminary General Plan, which was approved by the State Park and Recreation Commission December 11, 1981. The preliminary plan, with this addendum attached, should be considered as the Final General Plan for the unit.

Attached are State Park and Recreation Commission Resolution 83-81 adopting the plan, a list of plan revisions, and comments and responses on the plan by agencies, organizations, and individuals.

Please delete the word "Preliminary" from your copies of the plan. (Note to depository libraries: your copy of the Preliminary General Plan is also enclosed.)

Sincerely,

Alan K. Kolster, A.S.L.A.  
Senior Landscape Architect

I-0206I

Enclosures

DEPARTMENT OF PARKS AND RECREATION

## STATE PARK AND RECREATION COMMISSION

P. O. BOX 2390, SACRAMENTO 95811



## RESOLUTION 83-81

Adopted by the

## CALIFORNIA STATE PARK AND RECREATION COMMISSION

at its regular meeting in San Francisco, California

on December 11, 1981

WHEREAS, the Director of the Department of Parks and Recreation has presented to this Commission for approval the proposed General Plan, as amended on page 28, for the Carnegie State Vehicular Recreation Area; and

WHEREAS, this reflects the long-range development plans as to provide for the optimum use and enjoyment of the unit as well as the protection of its quality;

NOW, THEREFORE, BE IT RESOLVED that the State Park and Recreation Commission approves the Department of Parks and Recreation's General Plan for the Carnegie State Vehicular Recreation Area, preliminary dated August 1981, subject to such environmental changes as the Director of Parks and Recreation shall determine advisable and necessary to implement carrying out the provisions and objectives of said plan.

Addendum to Carnegie SVRA General Plan, Draft of Preliminary, August 1981

Page 28: e. Non-Conventional Vehicles and Accessories

Policy: replace first sentence with:

"Special vehicles and accessories, such as "widowmaker" tires, chained tires, or tracked vehicles, shall not be allowed in the unit unless special permission is given by the area manager, after consultation with the region."

Page 48: Future Operation

Add reference to last sentence: "(See page 45, last three paragraphs.)"

NOTICE

STATE OF CALIFORNIA  
DEPARTMENT OF PARKS AND RECREATION

1981 AUG 28

CARNEGIE STATE VEHICULAR RECREATION AREA  
GENERAL PLAN, INCLUDING  
DRAFT ENVIRONMENTAL IMPACT REPORT

The California Department of Parks and Recreation has prepared a General Plan, including Draft Environmental Impact Report for Carnegie State Vehicular Recreation Area. Copies of this document are available for public review at the following locations:

Livermore City Library  
1000 South Livermore Avenue  
Livermore, CA 94550

Tracy City Library  
1340 Holly Drive  
Tracy, CA 95304

Hayward City Library  
22737 Mission Boulevard  
Hayward, CA 94541

Diablo Area Office  
Department of Parks and  
Recreation  
4180 Treat Boulevard, Suite D  
Concord, CA 94521

Carnegie State Vehicular Recreation Area  
Corral Hollow Road  
(ten (10) miles southwest of Tracy, CA)

There is a forty-five (45) day public review mandated by the California Environmental Quality Act. Comments or questions on this document should be addressed to James M. Doyle, Supervisor, Environmental Review Section, California Department of Parks and Recreation, P.O. Box 2390, Sacramento, CA 95811; (916) 322-2481. Written comments must be received prior to OCT 10 1981.



October 7, 1981

Mr. James M. Doyle,  
Supervisor  
Environmental Review Section  
Department Of Parks And Recreation  
P.O. Box 2390  
Sacramento, CA 95811

Dear Mr. Doyle:

We at SRI International (formerly Stanford Research Institute) have received a draft copy of the Carnegie State Vehicular Recreation Area General Plan and have been asked to comment.

The major comment and concern that we have continues to be that our adjacent property be protected from trespass on it. As the General Plan states, our property is used for explosives testing and trespassers might be subjected to potentially hazardous situations. The General Plan does not address this concern. ]-1

The second comment is a minor one; where Stanford Research Institute appears, we would appreciate changing the designation to SRI International, our new name. ]-2

Sincerely,

William Wilkinson  
Assistant to Vice President

WW/sq

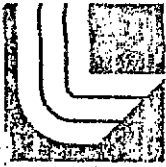
RECEIVED

OCT 15 1981

RPI

**SRI International**

333 Ravenswood Ave. • Menlo Park, CA 94025 • (415) 326-6200 • Cable: SRI INTL MNP • TWX: 910-373-1246



# Lawrence Livermore National Laboratory

Hazards Control Department

An Equal Opportunity Employer

September 28, 1981

James M. Doyle, Supervisor  
Environmental Review Section  
Department of Parks and Recreation  
Box 2390  
Sacramento, CA 94811

Dear Mr. Doyle

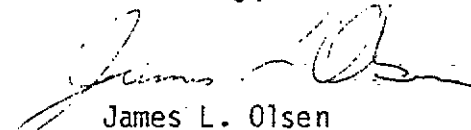
Thank you for the opportunity to review the August 1981 Draft of the General Plan for the Carnegie State Vehicular Recreation Area (SVRA). Our high explosives test facility, Site 300 is adjacent to the SVRA on the north.

None of the General Plan recommendations will have a negative impact on Site 300 activities. No Site 300 activity precludes implementing any General Plan Recommendation.

On page 20, the General Plan says that a siren is sounded for 3 to 5 minutes before high explosive tests at Site 300. We do not do this. Our area controls are designed so that such a warning is not needed. ]-3

Should you have any questions concerning Site 300 operations, please call Roy Mullins (415) 423-5216. For questions concerning the environmental impact of Site 300, please call Arthur J. Toy (415) 422-9046.

Sincerely,

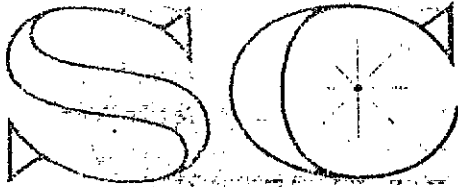
  
James L. Olsen  
Manager, Plant Services

RECEIVED

OCT - 8 1981

RPI





October 8, 1981

DEPARTMENT OF BIOLOGY

Mr. James M. Doyle  
Supervisor  
Environmental Review Section  
California Department of Parks and Recreation  
P.O. Box 2390  
Sacramento, California 95811

Dear Mr. Doyle:

I am writing concerning the draft proposal of the Carnegie Plan for the management and eventual expansion of the Carnegie Park State Vehicular Recreation Area in Corral Hollow. This area of California is biologically very important. A number of animal and plant species from the Bay Area come into contact with species from the Central Valley in Corral Hollow. Some of these species intergrade with close relatives where they come into contact and some have sharp abutting distributions in this area. In both cases very important biological principles are illustrated most vividly. The plant and animal species in this area are important examples and constitute a living laboratory for evolutionary biology and ecology and it has been used as such for many years. However, the presence of the Carnegie Park State Vehicular Recreation Area represents a threat to these species and an expanded park represents a most serious threat to the entire area. The unique nature of the biota of this area and its importance to research and teaching is completely ignore in the draft proposal.

4

Far more seriously is the failure of the draft report to consider the impact of current park management practises and future expansion on the endangered species found in the area. The blunt-nosed leopard lizard, Gambelia silus, is mentioned in the report as being present in the area but the report states that no endangered or threatened species are found here. The leopard lizard is both federally and state listed as endangered. In addition, the area is used extensively by Golden Eagles, also an endangered species. The proposal does not include a management plan for each of these species.

5  
6

In both regards the draft proposal is deficient. It ignores the importance of the area biologically. This importance is indicated by the location of a Department of Fish and Game Ecological Reserve just downstream from Carnegie and the extensive research and instructional use made of the area by students and scientists from the University of California, California State University, Hayward and the University of Santa Clara. The expansion of Carnegie Park, even its continued use seriously jeopardizes the biological importance of the area and compromises its use as an Ecological Reserve and a living laboratory and classroom.

7

It is clear that in its present form the draft proposal is grossly deficient and should be withdrawn for extensive revision. It is a virtual certainty that failure to do so will place the Department of Parks and Recreation in a legally vulnerable position. One that, I am sure, will be exploited by those opposed to the expansion or presence of the park. Both federal and state law are explicit in their language concerning state projects impacting endangered species negatively.

In preparation of the revised proposal I strongly recommend that scientists from the Universities and government agencies most directly involved in this area be consulted.

Sincerely yours,



Ronald William Mariow  
Visiting Assistant Professor



6 October 1981

Reply to:  
MUSEUM OF VERTEBRATE ZOOLOGY  
2593 LIFE SCIENCES BUILDING  
BERKELEY, CALIFORNIA 94720

Mr. Pete Dangermond, Jr., Director  
State Department of Parks and Recreation  
1416 Ninth Street  
Sacramento, California 95814

Dear Mr. Dangermond:

I have just reviewed the draft general plan for the Carnegie State Vehicular Recreation Area, and submit the following comments for your consideration.

1) Reference to off-highway vehicles (OHVs) seems unfortunate and, frankly, suspicious. There exists a large body of literature on the adverse effects of off-road vehicles in which they are consistently referred to as ORVs, and for that reason they should continue to be referred to as such. 8

2) The section on animals (p. 16-17) contains a number of inaccuracies and unfortunate omissions. I know of no substantiated records for the leopard lizard from Corral Hollow; if it is found there it would be Gambelia silus, which is on the U. S. Endangered Species List and therefore a contradiction to the comment that no such forms occur in the area. "Western garden snake" should probably read western aquatic garter snake. The faunal importance of the valley was extensively documented and emphasized in a letter from ten scientists to you in November, 1980, and the draft plan essentially omits the key points of that letter. Corral Hollow is actually at the northern or western limits of the distributions of the spadefoot toad, long-nosed snake, glossy snake, black-headed snake, and San Joaquin whipsnake. Although the whipsnake is not currently classified as threatened, rare, or endangered, it is a species of concern to the Department of Fish and Game (it has a restricted bag limit). Golden eagles are known to nest in the area, an item which emphasizes a broader concern: Corral Hollow is a large, relatively stable ecosystem. It is particularly interesting from scientific, esthetic, and educational viewpoints because it supports a large and diverse fauna of vertebrate predators. 9

3) As quoted in the draft plan, the Public Resources Code clearly prohibits substantial adverse effects from ORVs on state lands. However, over and over in the draft plan there is a failure to precisely state the extent of adverse effects or the extent to which they can be mitigated (e.g., pp. 3, 54, 58). In one place the report states that catchment basins are not the "ultimate" solution to the siltation problem (p. 22), but it never does state what the final solution is. 10

RECEIVED

OCT - 9 1981

RPI

4) Prevention of adverse effects seems to be entirely a matter of future funding and of responsible action on the part of ORV users, but the draft plan does not address the likelihood of either of these factors. Given the current state financial outlook and my observations of ORV users elsewhere in California, I doubt that either expectation is realistic.

11

5) In the draft plan, ORV noise is apparently treated only in terms of a health hazard in terms of damage to human ears. What about the effects of ORV noise on wildlife? Dr. Bayard Brattstrom at California State University, Fullerton, has determined that such noise does have adverse effects on animals, including spadefoot toads. And what about the adverse effects of nondamaging noise on humans?

12

6) There is a discussion on p. 52 of the draft plan of "land use suitability" and on p. 53 of "neighboring land uses." These comments emphasize the remoteness of the area from towns and the supposedly poor quality of the land for ranching, although there is mention of wildlife habitat. What is not mentioned here or elsewhere in the report is the very substantial use of the entire area for educational and nondestructive recreational uses by numerous individuals and institutions from throughout the Bay Area. This significant nondestructive use of the area was detailed in a letter to you by ten scientists from my institution in November, 1980.

13

7) One of the most disturbing aspects of the draft plan is the repeated mention of future possible expansion (pp. 2, 39, 40). I agree that increased use (which is predicted in the draft) will lead to increased demands by users for additional land for the park. Will this increased demand then be used to justify further attempts to expand the park?

14

In the final remarks of the draft plan there is an attempt at environmental justification for the development and management of the Carnegie facility, in terms of keeping destructive ORV impacts confined to a few areas. However, as admitted in the final words of the draft, increased usage of existing parks will result in an increased demand for additional ORV areas, and it is hard to imagine where it will all end. With this in mind, it is unfortunate that only two alternatives are presented, when in fact others do exist. The draft details a "no project" alternative; this is of course objectionable to both ORV users and also those opposed to these activities, because it would not provide for any mitigation of existing problems. The only other option listed is for development and management. However, it is the development (for reasons outlined above) that concerns me as a scientist and an educator--a third alternative is management of the existing facility (and problems) without expansive development. I hope the final plan will address all of these concerns in detail.

15

Sincerely,

*Harry W. Greene*

Harry W. Greene  
Assistant Curator of Herpetology  
Assistant Professor of Zoology



SAN JOAQUIN COUNTY  
**PLANNING  
 DEPARTMENT**

1810 E. HAZELTON AVE., STOCKTON, CALIF. 95205. PHONE 944-3722. (AREA CODE 209)

October 8, 1981

James M. Doyle, Supervisor  
 Environmental Review Section  
 Department of Parks & Recreation  
 P.O. Box 2390  
 Sacramento, CA 95811

RE: Carnegie State Vehicular Recreation Area General Plan and Draft EIR

Dear Mr. Doyle:

We have reviewed the Proposed General Plan and Draft Environmental Impact Report for the Carnegie State Vehicular Recreation Area. Since the majority of the park is located in San Joaquin County, we are particularly concerned about the park's impacts on surrounding areas.

The EIR should address in more detail three subjects: access, flood hazard, and aquifer recharge.

Access in San Joaquin County is via Corral Hollow Road. Is the road capable of carrying the amount of traffic which can be expected with additional development of the park? The road may also provide access to a new town, tentatively named Carnegie. An EIR is now being prepared on the desirability of allowing a town of 30,000 people to be created south of Corral Hollow Road along I-580. ]-16

The majority of the development proposed for the park is to be located in the flood plain. A portion of the flood plain (the floodway) would be needed to carry the flood flows. Our local ordinances, in conformity with the regulations of the National Flood Insurance Program, do not permit structures within the floodway. Structures in this area will deter flood flows and may be washed downstream by the force of the water. The EIR should clarify the limits of the floodway and what measures you propose to take to prevent downstream damage from floating debris. All structures, including mobilehomes, should be anchored to prevent floatation. ]-17

The EIR states that with the development and increased use of the flood plain there will be further compaction and increased runoff. Also, erosion and sedimentation on site will be a problem. What effect, if any will increased runoff and sedimentation have on the flood plain downstream, off the site? Will the extent of the area subject to flooding be increased unless preventive measures are taken? This subject should be discussed with the Army Corps of Engineers, since that agency did the flood insurance studies. for San Joaquin County. ]-18

The third area of concern is the loss of aquifer recharge potential. Corral Hollow Creek is one of the few areas in the County of substantial aquifer recharge, and the County has a policy of prohibiting urban or rural development in these areas. How much recharge will be prevented by the compaction and development in the park? How can this impact be mitigated? ]-19

RECEIVED

Letter to James M. Doyle  
October 8, 1981  
Page 2

The EIR does not appear to address the subject of trespass onto adjacent lands. The problems of trespass and the methods proposed by the State to minimize it should be discussed. ] 20

Thank you for the opportunity to review the plan and EIR. We would like to receive a copy of the Final EIR.

Sincerely,

*Peggy Keranen*

Peggy Keranen  
Senior Planner

PK:bc

cc: Parks & Recreation Director  
Public Works Director  
Supervisor Costa

# Memorandum

To : 1) Jim Burns, Projects Coordinator  
Resources Agency

2) James M. Doyle  
California Department of Parks  
and Recreation  
P.O. Box 2390  
Sacramento, CA 95814

From : Air Resources Board

Date : September 29, 1981

Subject : Carnegie State Vehicular  
Recreation Area  
SCH. No. 81082524

Project Title: Carnegie State Vehicular Recreation Area General Plan/  
Environmental Impact Report SCH. No. 81082524

Project Description:

Location	San Joaquin Valley San Francisco (AIR BASIN)	San Joaquin/ Alameda (COUNTY)	San Joaquin County Line Alameda (SPECIFIC LOCATION)
Impacts	1,540 (ACRES)	N/A (POP)	N/A (DWELLING UNITS)
			1,000+ (ADT)
			N/A (VMT)

Evaluation of Air Quality Analyses:

Analysis of:	<u>Adequate</u>	<u>Inadequate</u>	<u>Comment Number</u>
Environmental Setting	X		
Impact of Project Proposal and Alternatives		X	1
Mitigation Measures for Project Proposal and Alternatives		X	2
Cumulative Impacts		X	3
Other		X	4

Mr. Burns  
Mr. Doyle

-2-

September 29, 1981

COMMENTS:

1. The DEIR for the proposed OHV park does not contain an analysis of project's air quality impacts. According to the California Environmental Quality Act (CEQA), Section 15012(a) "An Environmental Impact Report is an informational document which, when fully prepared in accordance with the CEQA and these Guidelines, will inform public decision-makers and the general public of the environmental effects of projects they proposed to carry out or approve."

21

Enclosed for your assistance in determining the project's air quality impact is, "Procedure and Basis for Estimating On-Road Motor Vehicle Emissions." This information can be used to determine the air quality impacts from the traffic generated from the project.

2. Section 15143(c), CEQA, states, "Describe significant, avoidable, adverse impacts, including inefficient and unnecessary consumption of energy, and measures to minimize these impacts. The discussion of mitigation measures shall distinguish between the measures which are proposed by project proponents to be included in the project and other measures that are not included but could reasonably be expected to reduce adverse impacts. This discussion shall identify the mitigation measures which will eliminate such impacts or reduce them to a level of insignificance." The DEIR needs to include any and all feasible mitigation measures which could eliminate or reduce the projected air quality impacts. In addition, the DEIR needs to analyze the mitigation measures in terms of their effectiveness in the reduction of pollutant emissions.

22

3. The project is in an area being proposed for a residential development, (i.e., Carnegie Town). Section 15023.5(b), CEQA, states, "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present and reasonable foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." The DEIR, therefore, needs to address the cumulative air quality impacts of this project and existing and proposed projects in the vicinity.

23

4. As stated on page 1 of the DEIR, the Carnegie OHV park is located on the county line between San Joaquin and Alameda counties. Both of these counties have been designated nonattainment areas because of





CONNOLLY RANCH ANALYSIS OF THE DRAFT OF THE  
PRELIMINARY GENERAL PLAN FOR CARNEGIE STATE  
VEHICULAR RECREATIONAL AREA.

CONNOLLY RANCH

P.O. BOX 811

TRACY, CALIFORNIA 95376

MARK CONNOLLY

RECEIVED

1961

ACT

## TABLE OF CONTENTS

	Page
Background	1
Constraints and State Imposed Limitations on Feedback	2
History of Carnegie S.V.R.A.	3
Department of Parks and Recreation Continued Expansionist Policy	6
Asbestos Air Pollution	8
A. Problem	8
B. Solutions	9
C. Alternative Solutions to Inclusion of the Problem in the General Plan	9
State Violation of Water Rights of Downstream Property Owners	10
A. Carnegie Pollution of Corral Hollow Creek is Excessive (Quality)	10
1. Surface Water Pollution	10
2. Groundwater Pollution	11
B. Water Quantity/Rights	12
Erosion	14
A. Reasons for Concern of Adjoining Property Owners	14
B. Massive Erosion / Soil Loss at Carnegie	14
C. Dead Cow Canyon - Example	16
D. Department Conclusions and Solutions Are Insufficient	16
Perimeter Fencing	19
Summary of General Plan Deficiencies	20

## BACKGROUND

This report has been prepared by the Connolly Ranch to provide the requested feedback to the Department of Parks and Recreation on the Carnegie State Vehicular Recreational Area Draft of the Preliminary General Plan issued in August, 1981.

The Connolly Ranch is a cattle ranch owned and operated by the Connolly family for over 110 years. The Connolly family lives on the ranch and has no employees. All ranch work is done by family members. The ranch borders on the south side of the Carnegie Motorcycle Park for one mile. The Ranch headquarters and family home is located downstream of the Park in the Corral Hollow Canyon.

The Carnegie State S.V.R.A. is a motorcycle park of approximately 1600 acres. It offers the largest single area available for O.H.V. users in one location in California. (Department of Parks and Recreation, Off Highway Vehicle Recreation, May 1978, pgs 89-94).

} 24

This report is not from the viewpoint of a user. It is prepared by an adjoining and downstream Family ranch which has been and is continuing to be seriously damaged by the Park. This report is constrained in its feedback by several factors which are discussed in the following section.

## CONSTRAINTS AND STATE IMPOSED LIMITATIONS ON FEEDBACK

This report is limited by the failure of the state to provide adequate information to allow informed feedback.

The state is required by Public Resources Code § 5002.1 to make an inventory of features on the Carnegie Park. At least two requests were made by the Connolly Ranch to be provided with copies of this inventory. No opportunity to view the report was allowed. A copy was finally obtained from a newspaper reporter who obtained it from an undisclosed source. This preliminary Carnegie Project Inventory of Features of July, 1980 will be cited further in this report. This Inventory of Features does not contain the recommendations of the various authors. It is highly probable that some recommended that the park be closed, judging from the results of their research. The motivation for excluding these recommendations, however, is only known to the Department of Parks and Recreation.

25

The General Plan, which is the subject of this report, was not adequately available to the public. The Park itself had only one copy of the Plan, which is over 60 pages in length. No copying facilities were available, and the Plan could not be taken from the park. It is unlikely that a motorcyclist will take the time on his trip to the park to peruse this plan in the park office, let alone study it in detail. A concerned motorcyclist would have to make a special effort to obtain a copy, as the Connolly Ranch did. We obtained a copy from Senator John Garamendi, who has been the only source of information on the department's activities.

26

## HISTORY OF CARNEGIE S.V.R.A.

On August 21, 1978 Assembly Bill 2343 became Law. As Public Resources Code § 5006.48 it authorized the acquisition of Carnegie Cycle Park for one million two hundred thousand dollars (\$1,200,000.00). The Connolly Ranch had not opposed the bill because of specific amendments that were added at our request. These amendments were made in the Senate Natural Resources and Wildlife Committee on May 16, 1978. The original Assembly Bill allocated three hundred thousand dollars (\$300,000.00) for "environmental studies and archaeological investigation...". After conferring with Assemblyman Perino, who authored the bill, the bill was amended to allocate the \$300,000.00 to "landscaping costs, costs incurred in erosion control, costs of perimeter fencing to protect adjacent private property owners..." With this amendment, which we believed protected adjacent property against erosion, trespass and livestock intrusion, we did not oppose the acquisition. As implied in the amendment, we were assured that there would be no attempt by the state to expand the park beyond the original boundaries. The proposed Plan is the second attempt by the state to violate this agreement.

On November 3, 1980, the Connolly family received a letter from the Department of General Services, Real Estate Services Division stating: "The Department of Parks and Recreation is considering requesting funds from the legislature to acquire certain property". We were told that "an experienced appraiser on our staff, will contact you shortly to make an appointment to discuss and inspect the property with you". The letter strongly implied that the local landowners had no choice since the state seemed to be exercising its eminent domain power.

Nowhere in the letter were adjoining property owners informed that Public Resources Code § 5074.3 strictly prohibited the use of eminent domain to acquire

27

property for this purpose. Nowhere in the letter were adjoining property owners informed that the Code of Civil Procedure § 1245.020 provides that an appraisal may be made only if the power of Eminent Domain exists. The Connolly family was aware of these rights and publicly refused to allow the appraiser to inspect the property. Other adjoining property owners followed in this action. Rather than seek a court order to allow an appraisal, which is the procedure required by the Code of Civil Procedure, the Department stated that it was contemplating making the appraisal from an airplane. It is unknown whether this circumvention of the Code and violation of private property rights ever took place.

On December 11, 1980, the state informed us that "acquisition of your property is not essential for the present scope of the project". At this point, the state's attempt to more than double the size of the park by acquiring 2,222 acres for expansion appeared abandoned. The threat to the Connolly house and ranch appeared to be over because as the Draft of the General Plan states on page 37 "the acquisition effort to acquire for four wheel vehicles at Carnegie has been stopped by property owners unwilling to sell". This statement is incomplete. The proposed expansion was stopped in part due to the large public outcry from local citizens and other groups. Among the opposition was a 5 page letter, dated November 3, 1980, to the Department of Parks and Recreation from 10 professors at the University of California at Berkeley. They opposed expansion because the Carral Hollow canyon is an "important wildlife resource" and cited the "unusual vertebrate fauna of Corral Hollow". On page three of the letter it is stated: "Castle Rock and its surroundings, close to the eastern boundary of the proposed expansion, is one of the finest areas in the canyon for observing wildlife". Castle Rock and the surrounding area is owned by the Connolly Ranch. We have followed strict conservation measures in the area and prosecuted all illegal trespassers and hunters, and allowed no off-highway

28

vehicle of any kind in the area. Our goal has been to maintain the area in its natural state. Professor Robert C. Stebbins, Professor Emeritus of Zoology and Curator Emeritus of Herpetology, one of the signators of the letter, started making field trips with zoology students to Castle Rock 18 years ago and the class still makes their summary field trip to this part of the Connolly Ranch. (letter, pg 2) The letter concluded:

"Our experience in Corral Hollow and the educational benefits for our society we have seen generated through its use, and which can be expected to continue in the future, cause us to regard it as one of the most important wildlife areas in the San Francisco Bay Region."

For the Draft to be accurate it must state this reason for termination of the expansion. The Draft makes a more complete statement on page 4 : "this proposal met stiff resistance from landowners and other concerned parties in the proposed acquisition; therefore, the proposal was terminated". A more precise disclosure of the groups and reasons for their opposition to the proposed expansion would be more informative to users of the park and the public who will rely on the proposed plan later.

It is interesting to note that the proposed acquisition would have acquired all downstream property of the park for several miles. This would have been an effective way to eliminate liability for damage to downstream owners. (see sections on Erosion and Water Pollution) The rational would be that if you cannot control the erosion problem, simply acquire and eliminate those who will be harmed by it.



DEPARTMENT OF PARKS AND RECREATION CONTINUED EXPANSIONIST POLICY

The Draft of the General Plan makes it clear that the state still has covetous eyes cast toward adjoining property. Page 2 of the Draft states that it is the intent of the plan to :

"7. Identify lands outside the existing boundaries of the unit that are of interest to the department to expand recreational opportunities, improve management characteristics, or protect resources."

Page 22 designates as a "Zone of Primary Interest"

"All lands adjacent to the unit where any new development or land use change could adversely affect the stated purpose of the unit and the management objectives."

The most direct threat to the Connolly Ranch appears on page 40 of the Draft. In this quotation, the Department is referring to Section 5, which is owned by the Connolly family:

"Most trunk trails or four-wheel-drive emergency trails dead-end in canyons or on ridge tops at the back of the unit. The canyons generally run south of Corral Hollow, which runs from East to West in Carnegie. The slopes are very steep in these canyons, making it impossible to tie the four-wheel-drive trails together along the rear property line. This is a problem for general user circulation, and especially for emergency rescue. If a ranger goes on a rescue call in a four-wheel-drive vehicle and gets to the back property line, then discovers the accident victim is one canyon over, the ranger has to return to Corral Hollow to reach a trail to the accident victim. This problem can be solved by acquisition of a ridge adjacent to the unit that would tie several main ridgetop trails together. It is recommended that efforts to acquire sufficient land to accommodate this cross-connecting trail be pursued by the department."

This cross-connecting ridge is in the area described in the sections of this report dealing with asbestos air pollution, and excessive erosion. It is in the area south of the park with soils of the highest erosion hazard. Also, rescue of injured users is an insufficient reason since "a highway patrol helicopter can be summoned, and can arrive at the unit within 30 minutes". (Draft of General Plan, pg 48)

The quoted section of the Draft makes it clear that the park remains a serious threat to surrounding private property. The department will continue to pursue an expansionist "land grab" policy. The original agreement to respect private property rights as expressly made and implied in the amendment to the original assembly bill has been violated and disregarded by the state in its actions and the plan. For these reasons we find the inclusion of these sections quoted above in the plan unacceptable. They must be removed from the General Plan. The Connolly family remains unwilling to sell any property to the state at any price. The reasons are simple. Strict conservation efforts have been followed on the Ranch which are incompatible with the destructive effects of O.H.V. use. The Connolly Ranch regards the destruction of natural resources taking place on the Park as an unconscionable violation of the public trust and will not allow it to take place on Ranch property.

29

## ASBESTOS AIR POLLUTION

### A. PROBLEM

Page 52 of the Carnegie Project Inventory of Features is a sample of a soil series on the Park. It describes Henneke gravelly clay loam as follows on pages 52 and 53:

"This soil formed on mountainous uplands in the southern half of the project...Runoff is rapid, and erosion is high... this area (and other areas where the soils are influenced by serpentine minerals) is somewhat low in fertility and contains elements which may be toxic to some plants (chromium and nickel). In addition high asbestos content has been linked to serpentine soils in other areas. It is recommended that the area be carefully avoided for any use whatsoever, both for health reasons and resource preservation reasons."

This recommendation that the south half of the park be closed was made in April 1980. In spite of it, motorcyclists are still allowed in these areas without restriction. The Draft of the General Plan makes no mention of this problem. The General Plan would allow motorcyclists to continue to ride in these areas, and only restrict them to trails. However, this report is not concerned with the health dangers to users of the park. This report will show that asbestos, or other air pollution is entering the air supply and that "wind and water simply spread the effects off-site". (General Plan, pg 54)

"The San Joaquin County Planning Department estimates that 6.9 lbs. of airborne particulate matter per hour per cycle is generated on bare soil." (Inventory of Features, pg 15) Since the unit was operated by the state in January 1980, average daily attendance has been about 10 motorcycles per day on weekdays, and 200 motorcycles per day on weekends. However, during peak riding conditions, 350 to 400 bikes per day are not uncommon on weekends." (General Plan, pg 20) With these statistics, it is possible to estimate the total airborne particulate matter generated by the park per year, if each rider rides a total of 2 hours while at the park, and only 200 attend per day on week-

ends. This would generate 161.46 tons of airborne particulate per year which is possibly laden with asbestos, or other toxic substances.

The prevailing winds of Carnegie will carry this matter directly to Connolly Ranch property. The winds are from the west north west for every month of the year except February and May, when they are from the west southwest and west respectively. (Inventory of Features, pg 12) Since the Connolly Ranch is South and East of the Park, these winds carry this airborne particulate directly onto ranch property 12 months of the year.

#### B. SOLUTIONS:

The General Plan should require that the following actions be taken:

1. The area of the park which has a potential asbestos air pollution problem must be closed to protect adjoining property owners.
2. The general plan should disclose this problem so that the public using the park at least has the opportunity to protect itself.
3. Detailed studies must be conducted to determine if an asbestos or other toxic chemical problem could exist on the park, and whether the effects are moving off-site through the air.

#### C. ALTERNATIVE SOLUTIONS TO INCLUSION OF THE PROBLEM IN THE GENERAL PLAN:

To exclude this problem from the general plan is probably not good planning. Since this airborne particulate, as well as the water pollution which will be discussed in the following sections, interferes with the enjoyment of the adjoining property, and constitutes a continuing trespass, it is possible that such a trespass could be the subject to legal abatement. The park could be labeled a private nuisance and an injunction issued to close it until such pollution of the air (or water) can be stopped. These undesirable possibilities must be considered when formulating a General Plan.

## STATE VIOLATION OF WATER RIGHTS OF DOWNSTREAM PROPERTY OWNERS

This section will be divided between state water quality problems created by the park, and state interference with the quality of water through the proposed catch basins. The quality section will further be divided between surface water and ground water pollution. Each section will have a different impact on the general plan, and will therefore contain different recommendations to modify it.

### A. CARNEGIE POLLUTION OF CORRAL HOLLOW CREEK IS EXCESSIVE (QUALITY)

The creek has been estimated to contain about 70 c.f.s, with wide variations. It is important to the Connolly Ranch because the creek charges the aquifers which feed the well for the ranch headquarters and house and because it provides the only water for livestock in some areas when it is running in the winter.

#### 1. SURFACE WATER POLLUTION

The total watershed feeding the Corral Hollow creek is 28,220 acres. (Inventory of Features, pg 21) The park controls only 5.5% of this area. Yet, between the time the stream enters the park and exists on the downstream side, the amount of suspended sediment load in the water increases ten (10) times. Entering the Park the water contains a suspended sediment load of 0.45 g/l. Leaving the Park it contains 4.26 g/l of suspended sediment. (Inventory of Features, pg 24) In other words, the state owned 5.5% of the watershed is contributing almost 90% of the total pollution of the stream. These facts are not mentioned in the General Plan.

The suspended sediment may also carry toxic substances leached from the soil. Calcium is being leached into the waters of the creek (Inventory of Features, pg 25), as well as nickel, chromium, and possibly other toxic substances such as asbestos. (Inventory of Features, pg 4) Regardless of

the specific substances carried by the water from the park, there should be no doubt that "suspended sediment, produced as a result of erosion, may have a significant effect on water quality" (Draft of General Plan, pg 10). This Park-caused pollution has been, and is today, depositing sediment on downstream property owners, and has already resulted in interference with surface water supplies for livestock.

## 2. GROUNDWATER POLLUTION

On page 54 of the Draft of the General Plan it states that "the impacts of the plan on the area's groundwater supply and quality are unknown". This conclusion of a lack of knowledge of the effect of the proposed Plan is grossly inadequate. Although the exact impact may be unknown to the State, several impacts must be considered.

The Department plans to build catch basins in the creek bottom to act as sediment settlement ponds. These ponds might result in the aquifers which supply the Connolly Ranch water downstream being charged with this possibly toxic water. Previously this water would flow into the San Joaquin Valley at an area which the San Joaquin County Open Space Conservation Element Report - P-16, June 1973 states is a "substantial aquifer recharge area". Although this pollution may be of concern to anyone in the San Joaquin Valley, it is not the major concern of this report. The proposed catch basins would merely result in the aquifers being charged with polluted water slightly further upstream. The aquifers would now be charged with water held in the creek bottom upstream of the Connolly Ranch well. The Department cannot know if it is meeting the requirement of Public Resources Code Section 5019.56(c) to contain all waste on the park site, unless it knows if water is escaping underground, or has the potential to do so.

The General Plan should include several actions to deal with this pollution of both surface and groundwater. The Regional Water Quality

Control Board should be informed by the Department of Parks and Recreation of this problem, and the Department's intention to continue to discharge waste into Corral Hollow Creek. Section 13260 of the Water Code requires:

"Any person discharging waste...within any region that could affect the quality of the waters of the state...shall file with the regional board of that region a report of the discharge, containing such information as may be required by the board."

Because Section 13050 of the Water Code includes in the definition of person "the state or any department thereof" the state should meet requirements of the code.

The Board could then require the Department of Parks and Recreation to "report on any technical factors involved in water quality control or obtain and submit analysis of water...". The Board could issue a cease and desist order (Water Code § 13301) and/or seek an injunction against waste discharge by the Park from the Attorney General (Water Code § 13340). At a minimum, the Department of Parks and Recreation should inform the Regional Board of its schedule of Remedial measures (Water Code § 13300). Since the Department admits that the impacts on the water are "unknown", any of the above actions would be some progress to at least determining the extent of the problem.

#### B. WATER QUANTITY/RIGHTS

The Department proposes to build catch basins in creek bottoms to "minimize sediment discharge to sites downstream of the S.V.R.A.". Such catch basins would have to hold runoff for "extended periods because of the fine texture of the sediment and correspondingly very low settlement rate". (Inventory of Features, pg 22) These catch basins are dams in the creek bottom, which are being given another name. They would have to stop the flow of water in the creek, or a large portion of the water, to achieve their purpose. This would mean that water to downstream riparians would be cut-

off or severely inhibited. The state would effectively be taking all the waters of the creek on which the Connolly Ranch has relied for livestock for over 110 years. This would be an unreasonable use of the water. The General Plan must anticipate the possibility that if this plan were adopted and the catch basins constructed a downstream riparian could seek an injunction either preventing the construction of the catch basins or preventing their use. In the past parties have been prohibited from taking unreasonable amounts of water from streams when it would interfere with the rights of the other riparians (Lena v. Ferari (1938) 27 Cal App2d 65,71, 80 P2d 157)

The catch basins which would be built would stop the flow of water to downstream users to "trap soil material needed for reclamation and rehabilitation of eroded areas". It has been held that the use of water to acquire deposits of sand and gravel is an unreasonable use of water. (Joslin v. Marin Municipal Water District (1967) 67 CalRptr. 377, 429 P.2d 889) It seems the catch basins proposed by the state would be an unreasonable use, an unreasonable method of use, as well as an unreasonable diversion. Water Code § 275 provides that the State Water Resources Control Board "shall take all appropriate proceedings or actions before executive, legislative, or Judicial agencies to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water in this state."

Considering these potential problems with the proposed catch basins, they should be eliminated from the General Plan. If they are not, the possibility exists that they could be prohibited by either individual action or other state agencies such as the State Water Resources Control Board.



## EROSION

### A. REASONS FOR CONCERN OF ADJOINING PROPERTY OWNERS

Erosion is an important factor to adjoining property owners for several reasons. First, erosion along fence lines now taking place on the south end of the park will result in the eventual destruction of the fence and spreading of erosion to the adjoining property. Motorcyclists ride their bikes directly beside the fence and washes are formed on the steep trails. Eventually in some places the perimeter fence of the park will collapse into these washes. Secondly, erosion contributes to the pollution of water which is being used by downstream property owners. Thirdly, destruction of the soil drastically changes the ecosystem. The Inventory of Features states:

"[T]he characteristics of a soil, in turn greatly influence the vegetation type. Climate and topography also are factors that determine what type of vegetation would be present. Assemblage of wildlife is generally associated with the type of vegetation."

"The greatest disturbance to the ecosystems within the Carnegie Project ecosystem has occurred over the past 10 years as a result of Off-highway vehicle (O.H.V.) use. The impacts of O.H.V.'s on the ecosystem are many. Three of the most obvious are vegetation disturbance, soil loss, and soil compaction. Because soil, vegetation, and animal fauna within an ecosystem are closely related to one another, any disturbance to one will also affect the others."

"Continual disturbance of any kind can cause widespread changes within an ecosystem. Characteristics of the soils, plant communities, and wildlife fauna may be altered."

"Complete recovery of the ecosystem, however, may take decades or centuries."

Ecosystems do not recognize fences or property lines. A drastic change in the park's ecosystem will cause a change in adjoining property ecosystems.

### B. MASSIVE EROSION / SOIL LOSS AT CARNEGIE

The Inventory of Features clarifies the massive scope of the problem:

"The recommended soil loss tolerance level, T value, for soils at Carnegie is 2 tons/acre-year..."

Quantities of sediment measures from one of the steeper plots exceeded the recommended T value by 5 times in just one storm. On longer, steeper slopes, having more loamy or gravelly textures, one can expect much higher quantities of sediment loss, perhaps as high as 50 to 80 tons/acre year." (pg 61).

This means that soil is being lost by erosion at Carnegie in quantities potentially as high as 25 to 40 times the recommended tolerance levels of the U.S.D.A. and the Soil Conservation Service. Carnegie is literally washing away. It is further estimated that "at this rate, total loss of a 5 inch thick A1 horizon would occur within 50 years. Left undisturbed, it would take over 1500 years for this layer to completely reform." This damage, as The Inventory of Features states is permanent:

"Recovery of a disturbed area to a stable condition may take several hundred to several thousand years--certainly well outside the realm of productive use by humans."(pg 55).

The proposed General Plan understates the massive problem that exists. Statements such as "erosion rates are high for some lands in the unit" is an inadequate reflection of the disaster which is occurring (Proposed General Plan, pg 10)

Page 12 and 13 of the General Plan summarize the soils on the park. One soil type is stated to have a moderate erosion hazard. Every other type of soil listed ranges in erosion hazard from high to very high. This "shopping list" approach to soil analysis does not sufficiently highlight the wholesale destruction of the Park taking place.

Actual erosion is so severe it is visible in just one storm. Because of the compaction of the soil, it is unable to absorb rain sufficiently to protect itself. The following incident was observed and reported in the Inventory of Features:

"The end result can easily be imagined...under even dry soil-moisture conditions most of the water collecting on denuded roads, trails, and hillclimbs from a weak storm will

run off the slope at velocities great enough to dislodge and transport large quantities of soil. To illustrate, during the month of December at Carnegie, soil moisture was at a minimum since no major storms had yet passed over the area. It was observed that after a steady drizzle (0.10 inch) for approximately 1 hour, water was running off of the denuded and compacted surface of motorcross no. 2 and forming small rills." (pg 60).

### C. DEAD COW CANYON - EXAMPLE

Dead Cow Canyon is a canyon which "lies entirely within state control". (Inventory of Features, pg 21) What has happened at Dead Cow Canyon is typical:

"Along Dead Cow Canyon, for example, intensive O.H.V. use of the hillslopes surrounding the canyon and the creation of a trail down the center of this previously undisturbed drainage has resulted in the formation of an unstable gully measuring 1.5 meters (5 feet wide) and 9 meters (30 feet) deep in some places. Aerial photographs of the area taken in 1969 show that this gully did not exist at that time. Measurements taken over the past rainy season indicate that the channel is widening and deepening along its entire length."

(Inventory of Features, pg 60, Proposed Plan, pg 14)

This is an accurate description of the gully. A less accurate description appears on page 32 of the Proposed Plan in which the gully is cited as being 25-30 feet deep and 10-15 feet wide. The proposed plan would be more credible if it was consistent in its descriptions of the gully.

### D. DEPARTMENT CONCLUSIONS AND SOLUTIONS ARE INSUFFICIENT

The Proposed Plan understates the obvious conclusion of a massive and uncontrollable erosion problem. The Proposed Plan states: "...Considering the amount of past use, erosion is not excessive; however, there are several isolated locations where erosion channels have developed within the unit." (P. 32) This type of statement detracts from the magnitude of the problem.

34

Referring to Dead Cow Canyon, the Proposed Plan concludes that "soil erosion will be a continuous maintenance problem." (Proposed Plan, pg 14) Control of erosion will be more than a "maintenance problem". Controlling soil loss at Carnegie will be a demanding and costly venture." (Inventory of Features, pg 61) "...Vast sums of money will be needed to construct and maintain debris basins of sufficient capacity to allow the suspended load of Corral Hollow creek to settle before the water flows off the Property." (Inventory of Features, pg 61) The author of this section of the Inventory of Features went on to conclude over one year ago that "many of the problems present at Carnegie and other O.H.V. areas have developed within a single rainy season and will continue to worsen at exponential rates. Their correction cannot wait two or three years for budgetary allocations to be made available with out expecting the costs of such conditions to increase monumentally." The author's recommendations were, unfortunately, not included in the Inventory of Features.

Even if catch basins were possible without interference with the water rights of downstream riparians and the reduced use of some areas was started, these would not be sufficient methods of dealing with the erosion problem. Catch basins would not control erosion, but merely prevent the spread of some of its effects off-site. The correct solution is implied in the Inventory of Features: "The cost of maintaining these and similiar drainage structures will be greatly reduced by reducing the amount of sediment at the source". (Pg 61). Control of erosion at the source is the only real solution to the problem. Any of the other solutions treat the symptom and ignore the disease.

This type of restoration and control will be very costly. In 1979 the Council on Environmental Quality published a report titled Off-Road Vehicles on Public Lands. On page 68 the estimated cost of reclamation of O.R.V.

stripped land, such as Carnegie, was between \$2000 to \$6000 per acre. If these estimates are accurate, it may cost up to \$9,600,000 to reclaim Carnegie. The park was purchased for only \$1,200,000. The alternative to reclamation advocated by the council is clear: "If reclamation is not technically or economically feasible, then the public land management agency should not allow O.R.V. use in the first place". The council recommends that the costs of reclamation should be paid only out of O.H.V. and user funds. The Council could see no reason why operators of O.H.V. stripped areas should not be subject to the same reclamation requirements as the Surface Mining Control and Reclamation Act of 1977 subjects owners of coal-surface mined lands. The damage being done to Carnegie is at least as great as if it were being surface-mined for coal.

The alternatives which the proposed Plan should consider are to control erosion at the source, or close the park to O.H.V. activity if this cannot be economically done.

Closing the park to O.H.V.'s would not eliminate the great value of it. The park could then be used in its natural state by groups such as those from the University of California at Berkeley (see Reference to Robert C. Stebbins letter in the section on the History of Carnegie S.R.V.A.), or opened as a park for hiking, and other less damaging uses. This would be even more responsible to the needs and desires of the public. A Bureau of Land Management commissioned Gallup Poll in the management of the California desert in January of 1979 yielded the following results:

81% of those responding wanted more wildlife and ecology protections,

73% wanted more scenery and natural character protection,

67% wanted more historical and archaeological site protection,

23% wanted more places for off the road vehicles, and

46% wanted fewer places for O.R.V.'s. These statistics indicate that the

Department of Parks and Recreation may actually be better serving the interests of the population by closing Carnegie to O.R.V.'s.

## PERIMETER FENCING

Any plan of perimeter fence maintenance or repair is totally absent from the proposed Plan. It is mentioned as existing when the Park was purchased (Proposed Plan, pg 32). The amendment to the original Assembly Bill which allocated \$300,000 to the "costs of perimeter fencing to protect adjacent private property owners" has been abandoned. The fence is presently in a state of disrepair. When informed that the fence was down in the past, rangers at the park have been reluctant to even admit an obligation to repair it. On one occasion a tractor building fireguards on the park destroyed a 15 foot section of fence. Pictures were taken of the destroyed fence, and are still available if the Department wishes to inspect them. When informed that the fence should be repaired because Connolly Ranch cattle would stray onto the park, the ranger demanded proof that it was a park tractor that destroyed the section of fence. The fence was repaired by the park, but not before the ranger had resorted to obscenities to describe the fence and his displeasure at having to repair it. It is unfortunately that every time the fence is down that it seems to be easier to repair it than to engage in a debate of the legislative history of the park and its responsibilities for maintenance with one of the rangers.

It is even more unfortunate that the proposed plan contains absolutely no program of maintenance or repair of the perimeter fence. It leaves no doubt that on a list of priorities of the Department of Parks and Recreation, protection of adjoining landowners through fence maintenance has no place.

## SUMMARY OF GENERAL PLAN DEFICIENCIES

1. Inadequate distribution of information and feedback both from park users and the general public.
2. Failure to adequately explain the reasons why past attempts at expansion of the park have failed.
3. Continued policy of expansion to adjoining property without an ability to control problems on the existing park.
4. Failure to discuss or act upon potential health concerns such as asbestos air pollution.
5. Failure to propose remedies to water pollution which will be feasible while not interfering with water rights of other riparians.
6. Failure to determine the affects of the park on water quality.
7. Failure to provide means of controlling erosion at the source.
8. Failure to adequately disclose the extent of the erosion problem.
9. Failure to plan for alternative uses of the park other than O.H.V. recreation.
10. Failure to maintain fences as obligated, or to provide for fence maintenance.

The Connolly Ranch hopes this report will provide the Department of Parks and Recreation with the feedback it has requested from the public to help it formulate a General Plan for Carnegie S.V.R.A. We will continue to participate in the future development of the Carnegie project, and the protection of California's natural resources.

RESPONSE TO COMMENTS

CARNEGIE STATE VEHICULAR RECREATION AREA  
GENERAL PLAN AND DRAFT ENVIRONMENTAL IMPACT REPORT

Carnegie SVRA General Plan, Draft Preliminary, including a Draft Environmental Impact Report, was sent to the following individuals, organizations, and agencies:

State Clearinghouse (ten copies)  
Honorable John Garamendi, Member of the State Senate, Stockton  
Association of Bay Area Governments  
San Joaquin County Council of Governments  
Planning Director, Alameda County Planning Commission  
Planning Director, San Joaquin County Planning Commission  
City of Tracy  
City of Livermore  
Lawrence Livermore National Laboratory  
SRI International  
Dr. Robert Mark, Sierra Club  
Committee for Green Foothills, Palo Alto  
Mr. Howard Harris, Harris Consulting, Hollister  
California Enduro Riders Association, Alamo  
Hayward Motorcycle Club, Fremont  
Mr. Chuck Hollingsworth, President, CORVA, Ojai  
Mr. Bob Ham, Vice President, CORVA, Sacramento  
Mr. Rick Gochnauer, CORVA Southern Regional Director, Downey  
Cycle News, Long Beach  
Mr. Mark W. Anderson, Motorcycle Industry Council, Newport Beach  
Mr. Rob Razor, AMA Association Director, Westerville, Ohio  
Mr. Ed Dunkley, California Association of 4WD Clubs, Inc., Sacramento  
Mr. Ed Hollingshead, Reseda  
Mr. Vic Wilson, Orange  
Ms. Tomi Curtis, Parsons-Brinkerhoff, Inc., San Francisco  
California Off-Highway Vehicle Advisory Committee:  
Mr. Everett F. Blizzard, Sacramento      Mr. Ken Knull, Orinda  
Mr. Richard M. Brown, Visalia              Mr. Jim Livermore, Pomona  
Ms. Patricia J. Clark, Wofford Hts.        Mrs. Jan Morris, Auburn  
Mr. Robert C. Cline, Northridge           Mr. Dave Swoger, Northridge  
Mr. Terry Davis, Hesperia                  Mr. Art Vasconcellos, Watsonville  
Mr. Lewis Jauregui, Rancho Santa Fe

Newspaper ads were placed in the legal ad section of the Tracy Press, The Daily Review (Hayward)), and the Livermore Valley Times. (See attached example.)



COMMENTS WERE RECEIVED FROM THE FOLLOWING AGENCIES, ORGANIZATIONS, AND INDIVIDUALS:

S.R.I. International  
Lawrence Livermore National Laboratory  
University of Santa Clara, Department of Biology  
University of California at Berkeley, Museum of Vertebrate Zoology  
San Joaquin County Planning Department  
State of California, Air Resources Board  
Connolly Ranch

Numbered responses correspond to the numbers to the right of the comments.

1. The State Vehicular Recreation Area boundary is fenced and maintained. Signs have been posted and more will be posted indicating the dangers and illegality of trespassing. This was not specifically stated in the text, although signing was mentioned on page 27 of the Draft General Plan, and visitor safety was mentioned several times.  
  
This is a General Plan which presents justification for land uses. The General Plan is not intended to present specific design solutions.
2. The new designation of S.R.I. International will be noted in the final plan and Final Environmental Impact Report.
3. The fact that a warning siren for explosive tests at Site 300 is not being used will be noted in the final plan and Final Environmental Impact Report.
4. The Final General Plan will acknowledge the fact that the Corral Hollow area is biologically significant in that it represents the northern limit of the range of several wildlife species that inhabit the dry inner Southern Coast Range and California Desert. The uniqueness of the area for plant life is recognized on page 14 (f) of the Draft General Plan.
5. Our erroneous reference to leopard lizards being common to the grassland in the area is on page 16 of the Draft General Plan and will be deleted. The Department of Fish and Game has no recent records of blunt-nosed leopard lizards in the foothills north of San Benito County or in the valley north of Merced County.
6. Golden eagles are known to forage for food in the Corral Hollow areas, as well as the entire inner Coast Range. No eagle nest sites are located in Carnegie State Vehicular Recreation Area. The nearest known nest sites are located on Mount Diablo and Mount Hamilton, both located about 25 miles from Carnegie State Vehicular Recreation Area. The continued use of Carnegie as an off-highway vehicle use area will not significantly reduce the forage area for eagles in the region.
7. The major expansion of Carnegie State Vehicular Recreation Area is no longer a major issue (see General Plan, page 39). However, approximately 350 acres to be used for improved circulation and public safety are proposed for acquisition. (See page 40 of the Draft General Plan.)

8. The terms "off-road" or "off-highway" are intended to be synonymous. The term "off-highway" is used because of the Off-Highway Vehicle Act, which is the basis for the Department's actions.
9. See responses numbers 4, 5, and 6. OHV use occurred for nine years before the unit was owned and operated by the Department. Most impacts to the biota have occurred over an extended period. It is intended that the State's operation of the facility will improve the potential for maintaining the biota while accommodating the OHV activity, which is the purpose for which the unit was acquired.
10. &
11. Money for erosion control is available as a part of a continuing obligatory effort by the Department to maintain State Vehicular Recreation Areas.

The Department has hired two soil scientists who will oversee management practices at this and other OHV units. Erosion control practices include, in addition to catchment basins: closing some trails, revegetating areas, designing new trails with emphasis on erosion control, improving old trails, rotational use of trails, and drainage development; i.e., waterbars, culverts, etc.

No development, as proposed in the General Plan, can occur until the plan is approved by the California State Park and Recreation Commission, and 30 days after the Notice of Determination on the Final EIR is filed with the Secretary for Resources.

12. We agree that noise could have impacts upon animals, as well as humans. Noise limits will be strictly enforced, but noise and other environmental impacts cannot be completely avoided or solved. Public Resources Code Section 5019.56(c) states ...The development of facilities shall be aimed at making full public use of the recreational opportunities present, and the natural and cultural elements of the environment may be managed or modified to enhance the recreation experiences....
13. Pages 17 and 53 in the General Plan mention the importance of the Corral Hollow Ecological Reserve. The final report will also mention the educational use and importance of this and surrounding lands.
14. Extensive expansion is not contemplated (see pages 39 and 40) except for safety and improved circulation.
15. A maintenance program, including programs outlined in responses 10 and 11, will be implemented, in addition to the provision of delineated circulation and parking facilities, improved operational facilities, sanitary facilities, and camping facilities. These proposals constitute the necessary elements of a viable recreational facility.

Page 59 of the General Plan, Environmental Element, discussed several alternatives under 2.

16. Traffic on Corral Hollow Road is expected to increase due to implementation of the General Plan and increases in use at Carnegie SVRA; however, this use will not exceed the capacity of Corral Hollow Road when combined with its present use. The future demands on Corral Hollow Road should be evaluated in terms of future private development by county staff and appropriate steps taken by the county to assure that a safe margin is not exceeded. The State stands ready to cooperate with the county in this effort to the extent that it may appropriately do so.
17. There will be minimal encroachment of facilities in the floodplain, and no facilities in the creek channel. Picnic tables, garbage cans, structures, and portable toilets will be anchored and/or removed before the creek reaches flood stage.
18. Catchment basins and other management techniques will be used to prevent a great amount of sediment from washing into Corral Hollow Creek and downstream. See response numbered 10 and 11. We will respond to problems of increased runoff, compaction, and erosion by reducing these problems with improved management practices. Facility design reviews by the Corps of Engineers will be sought by the Department.
19. Only a small amount of the watershed area is affected by compaction. The increase in runoff will be collected in catchment basins. Aquifer recharge will take place through these catchment basins. The main channel, Corral Hollow Creek, will not be obstructed by catchment basins.
20. See response number 1. The fence line will be maintained. Visitor safety and protection of neighboring properties are the main reasons for having the fence.
21. The project will continue to cause air pollution in forms of emission and dust. Most use will occur when the ground is damp; therefore, the dust will be less prone to be transported in the air. Denuded areas will be reseeded. Trails will be used on a rotational basis. No large areas will be denuded at one time. See numbers 10 and 11.
22. See mitigation measure number 12, page 57. OHVs are not large consumers of energy. See number 21 above regarding efforts to reduce dust particles from entering the atmosphere.
23. The anticipated increase in use in OHVs at Carnegie SVRA is not expected to significantly increase air pollution. See response to number 16. By reducing the amount of dust from entering the atmosphere (see number 21), the SVRA will help reduce suspended particulates.
24. The information regarding sizes of SVRAs in the report cited (Department of Parks and Recreation, Off-Highway Vehicle Recreation, May 1978, pages 89-94) is no longer true. Ocotillo Wells SVRA, 14,590 acres; Hollister Hills SVRA, 3,347 acres; and Hungry Valley SVRA, 18,780 acres; are larger than Carnegie SVRA.

25. The Inventory of Features is a public document which is available in Sacramento to read; however, the Resources Code does not require that it be disseminated as is the case with the Draft General Plan.

In addition, the Department is required to provide an off-highway recreational facility at Carnegie by legislative language passed in 1978.

Section 5006.48 was added to the Public Resources Code. It states:

"Pursuant to existing law, moneys in the Off-Highway Vehicle Fund are continuously appropriated to the Department of Parks and Recreation for, among other purposes, the planning, acquisition, development, construction, maintenance, administration, and conservation of recreational areas and trails for the use of off-highway motor vehicles. Existing law makes no provision for the acquisition of property in the Counties of Alameda and San Joaquin, commonly known as the Carnegie Cycle Park, for state park purposes."

The bill would authorize the Director of General Services to purchase or lease such property on behalf of the state.

"The property would be transferred to the administrative jurisdiction of the Department of Parks and Recreation, which would be required to plan, develop, construct, maintain, administer, and conserve the area and trails for the use of off-highway motor vehicles. Any rent accruing from a lease after jurisdiction over the property is transferred to the department would be required to be deposited in the Off-Highway Vehicle Fund, rather than the General Fund, as would otherwise be required by existing law ...."

26. The planning process and the resulting Draft General Plan involved an extensive public involvement program.

During the planning process, eight public meetings were held in Sacramento, Livermore, Stockton, and Hayward. Six newsletters and a survey were mailed to over 700 recipients informing them of the effort.

The Draft General Plan was distributed to the individuals and agencies listed in front of these comments in accordance with the public codes.

Newspaper ads were known to have been included in the Livermore Valley Times, the Tracy Press, and the Hayward Daily Review.

27. Public Resources Code Section 5074.3 pertains to the California Recreation Trails, not to State Vehicular Recreation Areas.
28. The Department recognizes the importance of the biota of this area. See response to number 4.

The Department will enforce trespassing violations (see number 1).

29. Proposed expansion includes only areas that would provide for operation and safety needs related to the SVRA (see page 40).

Helicopters are not always available for rescue purposes.

The small area that is known to have asbestos has been excluded from public use (see the proposed land use and intensity map of the Draft General Plan, Sheet 6).

30. The known asbestos area has been closed to the public (see 29 above). Monitoring will take place for asbestos and other dangerous materials. If asbestos is found to be a hazard in a use area, then effective mitigation would be taken to eliminate the hazard. Most use occurs when soils are damp, and air pollution from dust is reduced. Bare soils, when not in use, will be seeded. The Inventory of Features states that dust is produced by OHVs unless soil conditions are moist. The San Joaquin County Planning Department estimates that 3.1 kg (6.9 lbs.) of airborne particulate matter per hour per cycle is generated on bare soils, during dry conditions. These figures do not appear to be appropriate for the normal peak use periods.
31. These figures are taken from a sample during one storm. Management practices proposed will reduce sediment load substantially from entering Corral Hollow Creek (see see Nos. 10, 11, and 18).
32. The Department plans to protect the quality of surface and groundwater. Sewage will be on a pumpout system, water in catchment basins, and wells will be monitored.

The Inventory of Features reports that surface and shallow groundwater contains boron and sodium, making it unfit for domestic or irrigation use. This seems to be a condition that exists regardless of the SVRA. Deep wells in the area offer more favorable water quality.

33. See No. 17.
34. Erosion will be managed by containment and reduction (see Nos. 10, 11, and 17), and soil erosion will be controlled by sound soil management practices. However, major control measures, such as catchment basins, cannot occur until the General Plan is approved by the California Park and Recreation Commission, as required by PRC 5002.2(a).
35. The figure of \$9,600,000 required for reclamation is apparently based on the entire acreage of the unit. The actual acres of eroded land is relatively minor.
36. See response number 21.

37. See response number 1. The \$300,000 allocated in Chapter 496/78 for Carnegie SVRA goes for many items, fencing being just one. This section of the legislation states, in part:

(b) Three hundred thousand dollars (\$300,000) for planning, development, and construction and for administrative costs, including, but not limited to, costs of environmental studies and archaeological investigations, costs incurred in conservation measures, maintenance costs, operation expenses and equipment, landscaping costs, costs incurred in erosion control, costs of perimeter fencing to protect adjacent private property owners, and personal services ...

Since fencing is desired jointly by the owners and the State, and the fence is existing at this time, a policy of future management of the fencing would appear timely. The Department will work with adjacent owners to establish an equitable policy for future maintenance efforts.

# CARNEGIE SVRA GENERAL PLAN

## SUMMARY

Carnegie State Vehicular Recreation Area -- Location, Size, and Current Situation	i
Plan Recommendations	i

## INTRODUCTION

General Description	1
Purpose of Plan	1
Recreation and User Demands	2
Potential Problem Areas	3
Planning Process	4
Historical Background	5

## RESOURCE ELEMENT

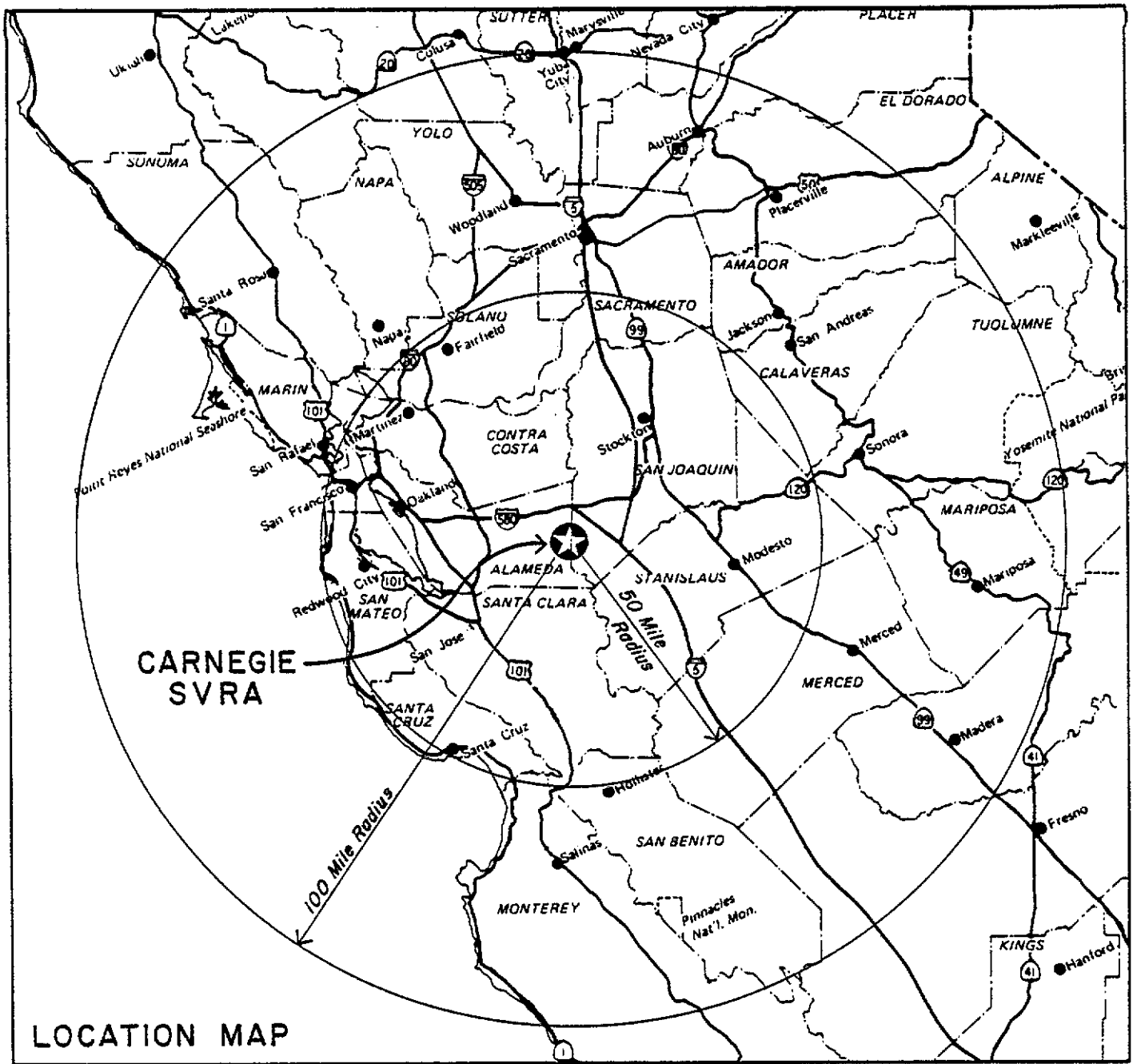
Inventory Summary	8
Unit Identification	8
Summary of Resources and Evaluation	8
Natural Resources	8
Cultural Resources	17
Aesthetic Resources	19
Recreational Resources	20
Resource Policy Formation	21
Classification	21
Declaration of Purpose	21
Zone of Primary Interest	22
Resource Management Policies	22
Natural Resources	22
Cultural Resources	25
Aesthetic Resources	26
Allowable Use Intensity	26
General Land Use Management	26
Use Intensity	28

## LAND USE AND FACILITIES ELEMENT

Land Use Analysis	31
Past Use	31
Special Use	31
Existing Conditions	31
Regional Land Use	32
Land Use and Facilities Plans	32
Plan Objectives	32
Proposed Land Uses	33
a. Land Use Designations	33
b. Circulation	34
c. Utilities	34
Proposed Facilities	35
a. Visitor Facilities	35
b. Operational Needs	38
c. Design Concepts	38
d. Concessions	39
Proposed Acquisition	39
Sequence of Plan Implementation	41

INTERPRETIVE ELEMENT	42
OPERATIONS ELEMENT	47
Initial Operation	47
Future Operation	48
ENVIRONMENTAL IMPACT ELEMENT	49
APPENDIXES	61
Carnegie Newsletter, January 1981	
Maps	
Soils Map	
Watershed Map	
Slope Map	
Historic Zones	
Existing Features	
General Plan, Proposed Land Use and Intensity	
General Plan	





LOCATION MAP

**CARNEGIE STATE VEHICULAR RECREATION AREA  
TRAVEL TIMES FROM MAJOR CITIES WITHIN A 100 MILE RADIUS**

<u>CITY</u>	<u>TRAVEL TIME</u>
STOCKTON	1/2-1 hr.
OAKLAND	1/2-1 hr.
MODESTO	1/2-1 hr.
SAN JOSE	1-1 1/2 hr.
SACRAMENTO	1 1/2-2 hr.
NAPA	1 1/2-2 hr.
SANTA CRUZ	1 1/2-2 hr.
FRESNO	2-2 1/2 hr.

## SUMMARY

### Carnegie State Vehicular Recreation Area -- Location, Size, and Current Situation

Carnegie State Vehicular Recreation Area is a 1,540-acre unit of the State Park System located on the Alameda/San Joaquin County line. The unit is 56 miles southeast of downtown San Francisco and 85 miles southwest of Sacramento. The unit was purchased with money from the Off-Highway Vehicle Fund in 1979, and was classified as a State Vehicular Recreation Area (SVRA) by the State Park and Recreation Commission in July 1980. Before state purchase, the facility had been used for 9 years as a private off-highway-vehicle (OHV) park.

This document presents a description of the resources of the unit, outlines the policies to be followed for its proper management, and proposes developments that will support and accommodate activities desired by the users. In developing these management policies and development plans, the special nature of off-highway-vehicle recreation was recognized. The problem -- that of minimizing adverse impacts on the soils, vegetation, cultural resources, and natural streams of the area -- was of prime consideration at all times. At the same time, emphasis was placed on determining exactly what developments would best serve off-highway recreationists. Citizen participation played an important role in the planning.

### Plan Recommendations

The following is a summary of the major recommendations for Carnegie SVRA:

#### Resources

1. Monitoring of erosion and rehabilitation efforts.
2. Construction of sediment debris basins.
3. Protection of important riparian areas.
4. Protection of an archeological site by designating the immediate area for trail use only.
5. Protection of the historic Carnegie lime kiln, townsite, and factory by limiting use to designated trails in some areas and fencing highly sensitive sites.
6. Highest management priority given to containment of OHV-off-site impacts.
7. Provision for resource management based on watersheds and rehabilitation analysis.
8. Provision for closure of OHV use areas which cannot feasibly be rehabilitated if conditions so require.
9. Provision for closure of the unit during periods of significant rainfall to minimize OHV impact and reduce maintenance costs.

10. Control of use by non-conventional vehicles and accessories.
11. Recognition of the need for a resource management staff position available to the unit to provide technical advice and assistance in site rehabilitation.
12. Establishment of OHV land use zones based on the sensitivity and durability of different areas to OHV use.

### Land Use

13. 1,445 acres devoted to off-highway recreation, including:
  - 815 acres of unrestricted use
  - 630 acres of trail use
14. 100 family campsites with an informal campfire center.
15. Day-use area - including 10 acres of parking on graded gravel, restrooms, beginner's area, and turf area.
16. Events area (for four-wheel and two-wheel use).  
(Informal camping area, 15 acres.)
17. Interpretation of cultural and natural features.
18. Motocross and hillclimb event facilities, as well as practice tracks.
19. Separation of off-highway motorcycle and street vehicle traffic.
20. Paved entrance road and administrative complex.
21. Two-way trails unless otherwise noted.
22. Development of a trails system, including existing and new trails as needed to provide an organized trail network.
23. Concession to provide parts, food, and beverage.
24. Entrance/administration complex.  
Entrance kiosk, paved entrance road, office (first-aid station - multi-purpose room), orientation center, service yard, and trailer sanitation station.
25. Skill levels assigned to trails according to a coded signing system (e.g., novice, intermediate, advanced).
26. Continued use of the modified midget racetrack on a year-to-year basis.

## INTRODUCTION

The purpose of Carnegie State Vehicular Recreation Area is to provide a facility for OHV recreational activity near the east San Francisco Bay metropolitan area and the interior valleys. The existing State Park System policy permits management and enhancement of land for off-highway-vehicle recreation, while protecting natural and cultural values.

In accordance with these guidelines, Carnegie SVRA has been planned to maximize OHV recreation opportunities on a long-term basis. The SVRA is planned largely for dirt\_bike use; however, event facilities for vehicles with four wheels are included in the plan.

Carnegie SVRA became a unit of the State Park System in July 1980.

### General Description

Carnegie State Vehicular Recreation Area is a 1,540-acre unit of the State Park System located on the Alameda-San Joaquin County line. San Francisco is approximately 56 miles to the northwest. Livermore is 15 miles to the west, and Tracy is 12 miles to the east. The entrance to the facility is off Corral Hollow Road. The facility is adjacent to two explosives testing facilities. Occupying several hundred acres on the north side of Corral Hollow Road is Lawrence Livermore Laboratories, Site 300. Stanford Research Institute's Explosives Testing Facility is located on the southern border of the recreation area, with an access road across the eastern section of the unit. The remaining acreage surrounding the unit is ranch land.

Carnegie SVRA is made up of northeast-trending ridges with steep canyons and the Corral Hollow floodplain. Corral Hollow Creek flows from west to east into the San Joaquin Valley. The hills rise abruptly out of the floodplain with very steep slopes. The hills provide users with challenging trail riding and hill climbing opportunities.

### Purpose of Plan

The objective of the planning process is to produce a comprehensive and flexible plan that provides policies for management and guidelines for development of Carnegie SVRA. This plan is based on a study of the environmental as well as recreational resource values.

The plan intends to enhance off-highway-vehicle recreation, while protecting the resource values of the unit.

The plan should be reviewed before preparing any development proposals, and should be updated to reflect all current conditions. It is the intent of the plan to:

1. Provide for continuance of off-highway motorcycle recreation and special event use for other off-highway vehicles.
2. Identify the users of the unit and their recreational needs and desires.
3. Identify and provide for protection of the cultural and natural resources of the unit.

4. Set forth management policies with respect to each of the above.
5. Delineate any possible environmental impacts that might result from implementation.
6. Identify existing and potential problems in the unit, and propose solutions to these problems.
7. Identify lands outside the existing boundaries of the unit that are of interest to the department to expand recreational opportunities, improve management characteristics, or protect resources.
8. Provide a guide for the sequence of development of facilities.
9. Provide general guidelines for accommodation of the various forms of OHV recreation.
10. Make these forms of recreation as safe as possible, without removing the challenge and risk that is part of OHV recreation, through management, interpretation, and user education.
11. Serve as an informational document for the public, unit personnel, the legislature, and local planning entities.
12. Provide a variety of off-highway-recreation activities and experiences, allowing maximum freedom of choice by the users.
13. Provide a facility that will attract users away from other lands closed to OHV use.
14. Establish management policies encouraging preventive maintenance and user education as a means of managing the environment to maximize public use.
15. Increase user awareness and education of unique site conditions and features through a variety of interpretive programs.

#### Recreation and User Demands

Carnegie has been in state operation a little more than one year. We do not have records of attendance for the nine years of private operation that occurred before state purchase. However, it is estimated that as many as 25,000 people attended some of the major motocross events held on the site in the mid-1970s.

The one year of state operation does not give a completely accurate picture of the level of attendance to be expected in the future. Normally, during the week, attendance is very low. The average attendance for a weekend day is 200 bikes. Weekends offering motocross racing events or hillclimb events generally draw a much higher attendance. A common complaint of users relative to the motocross track is that it is in very poor condition. As event facilities are improved, it is expected that more events will be held, thereby causing unit attendance to increase.

During the spring of 1980, the peak weekend day brought out 700 off-highway motorcycles and riders. A competition hillclimb in March 1981 had 100 entrants, with 1,000 spectators and 400 off-highway motorcycles making use of the rest of the park. It was felt that a small amount of advertising caused the very good attendance on this particular day.

According to OHV registration records as of December 1980 (Table 1), counties within a 100-mile radius of Carnegie had a total of more than 100,000 registered OHVs. Most of these are off-highway motorcycles, since most four-wheel-drive OHVs are street licensed. The high cost of getting to riding areas is causing users to look for opportunities close to home. Carnegie is relatively close for the large population of Bay Area users. It is expected that as urbanization consumes open space, causing riding opportunities close to home to disappear, the attendance at Carnegie will increase.

Table 1

Off-Highway Vehicle Registrations by County Within a 100-Mile Radius of Carnegie SVRA\*

<u>County</u>	<u>Registered Vehicles</u>	<u>County</u>	<u>Registered Vehicles</u>
Alameda	10,391	San Benito	634
Amador	546	San Francisco	1,250
Calaveras	476	San Joaquin	4,753
Contra Costa	8,051	San Mateo	5,600
El Dorado	2,252	Santa Clara	17,213
Fresno	10,274	Santa Cruz	2,431
Madera	1,296	Solano	3,045
Marin	1,600	Sonoma	4,039
Mariposa	142	Stanislaus	4,863
Merced	2,013	Sutter	1,571
Monterey	3,293	Tuolumne	736
Napa	1,759	Yolo	1,646
Placer	3,299	Yuba	1,087
Sacramento	10,701		
Total Registered Vehicles in all above counties		104,961 or 27% of state's total	

\* Registrations are through the Chappie/Z'berg Act of 1971 (Green Sticker Registration), as of December 27, 1980. (Source: California Department of Motor Vehicles.)

Potential Problem Areas

Throughout the planning process, many concerns and issues were examined. Many of these concerns had simple solutions, or at least the level of the problem diminished considerably after discussion. Listed below are the most significant issues; they are not listed in any order of importance.

1. Sediment Movement -- There is a concern for movement of soil offsite as a result of OHV action in the unit. In answer to this problem, conditions of accelerated and unnatural erosion will be predicted and prevented to the extent possible. Where occurrence of such erosion is expected, preventive measures will be taken.
2. Radioactive Contamination -- A question was raised during the planning effort regarding potential radioactive contamination from Lawrence Livermore Laboratory, Site 300. The department and the State Department of Health Services know of no health hazards to be derived from Site 300.

3. Two-Way Versus One-Way Trails -- During the first Carnegie public meetings, users said they did not like one-way trails. Riders meeting unexpectedly on a one-way trail present the danger of a serious accident. This plan proposes two-way trails, except for some special situations.
4. Modified Midget Racing -- A modified midget racing track was set up on the Carnegie property before state ownership. This use is not part of the OHV program, and cannot be part of the plan if the track is operated as a "closed course," a track closed to the general public. In this case, modified midget race car users are willing to accept the track being open to the general public. Based on the track being open to the public, the plan recommends that the track remain on a year-to-year basis, and that modified midget car racing be allowed to continue, as long as other conditions of the plan are met.
5. Four-Wheel Vehicles - A Place to Ride -- The plan proposes that four-wheel vehicles be allowed to use Carnegie for events on a weekend reservation basis only. The four-wheel-vehicle community in Northern California wants a place to ride that meets their specific needs. An effort was made to acquire land for four-wheel-vehicles' extensive and specific use adjacent to Carnegie SVRA. This proposal met stiff resistance from landowners and other concerned parties in the proposed acquisition; therefore, the proposal was terminated.

#### Planning Process

The Public Resources Code provides that the Department of Parks and Recreation shall classify each unit after it is acquired, and shall prepare a resource management plan and a general plan. Carnegie was classified as a state vehicular recreation area by the California State Park and Recreation Commission at its meeting in July 1980. This document is in response to the mandate of the Public Resources Code that requires submission of the two plans for hearing and consideration by the State Park and Recreation Commission. In addition, this document includes an environmental impact report in conformance with the requirements of the California Environmental Quality Act.

During the initial planning phases, more than 1,000 questionnaires were distributed to OHV enthusiasts, special interest groups, local residents, and state and local government agencies. This questionnaire, along with another filled out during the first public meetings, was used to develop a user profile of needs and desires of potential users. Four sets of public meetings were held during the planning process. The public meeting locations were Stockton for the Central Valley and Hayward for the East San Francisco Bay Area. The purposes of the four meetings were as follows:

1. Gathering public concerns and comments.
2. Sharing resource data with the public.
3. Review of alternative plans.
4. Review of the preliminary plan.

The major concerns coming from the four sets of public meetings were: a request by users for minimum development, concern expressed by the four-wheel segment of the OHV public that their needs are not being met, and the concern of property owners in the proposed land acquisition that their desire to retain their land would be ignored by the state.

## Historical Background

The geographic position of Carnegie SVRA, in the eastern foothills of the Diablo Mountain Range, suggests that the early Native American population would have been influenced by, and would have interacted with, groups from the Bay Area, the lower Sacramento Valley, and the coast. Some confusion exists as to what Native American group inhabited the Carnegie area, due to the geographic closeness to the Bay Area, the coast, and California's interior valley. The native people of the Corral Hollow region were victims of European diseases, the influences of the missions, and a heavy influx of miners through the area during the gold rush years.

The rapid disappearance of the native population occurred before ethnographic studies could be made. Three Native American groups, the North Valley Yokuts, the Costanoans, and the Bay Miwok, lived close to Carnegie SVRA. Any one of these Native American groups could have inhabited the area.

The North Valley Yokuts generally occupied the western side of the Central Valley, from Carquinez Strait in the north to Paleta, in Kern County, to the south. Some sources believe the "Hoyumne" Yokuts inhabited the Carnegie area.

Costanoans occupied the area along the coast from San Francisco south to Point Sur, and in the interior from the confluence of the Sacramento and San Joaquin Rivers southward along the crest of the Diablo range.

The Bay Miwok occupied the southeastern portion of the Sacramento Valley, just north of the confluence of the Sacramento and San Joaquin rivers, and may have inhabited lands southwest of these rivers. For additional ethnographic materials concerning the above-mentioned groups, see Inventory of Features, Carnegie SVRA (on file, Cultural Heritage Planning Section, DPR, Sacramento).

During the Spanish and Mexican periods, Corral Hollow was part of the old Spanish trail known as El Camino Viejo. El Camino Viejo ran from San Pedro Harbor in Los Angeles into the San Fernando Valley, and through the San Joaquin Valley, along the interior side of the Coast Range. The trail left the San Joaquin Valley and entered Corral Hollow, ending at Luis Peralta's Rancho San Antonio, now East Oakland. The trail through Corral Hollow served as an important trade connection, where horses, cattle, and other goods were transported between Los Angeles and the Bay Area.

The gold rush brought miners on their way to the southern mines, through Corral Hollow. Corral Hollow's first permanent settlers came in response to the steady flow of miners to and from the gold fields. In 1850, Horatio P. Wright, John A. Stockholm, William Brayton, and later Edward B. Carrell opened a tavern named the "Zinc House," at the mouth of Corral Hollow (not on state property). The "Zinc House" became an important stopping point for miners; meals, drinks, lodging, and feed for horses and pack animals were available.

The discovery of coal in the late 1850s and early 1860s drastically changed Corral Hollow. Edward B. Carrell, with the help of John O'Brien, sank a coal tunnel more than 135 meters (450 feet) deep at Baker's Ravine, later known as Tesla. Carrell and O'Brien named their tunnel the Eureka Seam, and attempted to make coal mining a going concern in Corral Hollow. Coal mining in Corral Hollow during the next 30 years was a boom-and-bust operation, besieged by many problems.



Coal formations in Corral Hollow were lignite and sub-bituminous in composition. Geologists of the time considered this to be soft coal, unsuitable for use. With this description of Corral Hollow coal, it was difficult to interest San Francisco businessmen to invest money in the coal mines. Transportation of coal to the Bay Area was always a problem. Coal had to be carried by wagon to Mohr's Landing on Old River, then by barge to San Francisco. Often, the cost of transporting the coal was higher than its selling price in San Francisco.

In the 1890s, John and James Treadwell, San Francisco financiers, began buying shares of Carrell's Commercial Coal Mining Company. The Treadwells spent nearly \$1 million on new machinery, support equipment, and structural development of their newly named Tesla Mine. Their improvements quickly paid off. The daily output of coal reached 500 tons, while the annual output for 1897 to 1902 was roughly 90,000 tons.

The Treadwell brothers sunk the coal tunnels deeper; in so doing, they discovered extensive clay and shale beds. These clay deposits were of various grades, ranging from high-grade plastic fireclay (excellent for making firebrick) to red-burning clays for sewer pipes, as well as clays suitable for paving bricks.

To use the clays, James Treadwell, in the early 1890s, constructed a clay plant that he named Pottery. Pottery was concerned primarily with production of sewer pipe and tiles, and included eight 9-meter (30-foot) kilns, later expanded to 12 kilns.

Pottery proved so successful that Treadwell decided to construct a larger plant. The resulting Carnegie Brick and Pottery Company and the town of Carnegie were primarily concerned with production of firebrick.

One of the first actions Treadwell took was construction of a lime kiln and opening of the limestone quarries. Mortar was needed for construction of Carnegie, and for the construction of the first four kilns. Eventually, there were 45 kilns centered around 13 stacks, producing 100,000 bricks per day.

Carnegie was a complete city, consisting of numerous brick office buildings, storage sheds, workers' cottages, bunk houses, hotels, saloons, a company store, a post office, and a school. Carnegie and the surrounding area once supported a population of 2,000 people.

A series of events during the early part of this century resulted in Carnegie's destruction. The 1906 earthquake seriously damaged the Tesla Coal Mine (the source for Carnegie's clay) and the brick factories. It was during this time that construction methods changed from brick to reinforced concrete, thereby reducing the demand for bricks. Increases in transportation rates by the Western Pacific Railroad further hurt Carnegie. The high rates curtailed Carnegie's ability to compete against other brick companies. The failure of Treadwell's holding company, the California Safe Deposit and Trust Company, eventually resulted in Carnegie's sale as an asset. Gladding, McBean and Company, a brick and pottery company from Lincoln, California, purchased Carnegie at auction February 5, 1916, for \$25,000. After removing all usable equipment, Gladding and McBean placed dynamite at strategic locations about the kilns, and proceeded to blow up the Carnegie Brick and Pottery Company.

Carnegie's statewide significance is indicated by the fact that it is Number 740 in the California Historical Landmark series.

During the ensuing years, sheep and cattle ranching continued to be an important function. In the late 1930s or early 1940s, the area began to be used for vehicle recreation. Carnegie Motorcycle Park, offering controlled off-highway-motorcycle recreation, opened in the late 1960s.

## RESOURCE ELEMENT

The purpose of this Resource Element is to establish long-range resource management objectives and policies necessary to protect and perpetuate important recreational, natural, and cultural resources in Carnegie State Vehicular Recreation Area (SVRA). This element identifies specific resource sensitivities and physical constraints, and establishes the department's guidelines for acceptable levels of development and use in consideration of these factors and the purpose for which the unit was established.

Due to the complexities inherent in long-term management of off-highway-vehicle recreation areas, the scope of this element is limited to identifying general policies and guidelines. Establishment of specific policies needed to manage various uses in the unit on a day-to-day basis, and development of detailed management programs such as rehabilitation plans, will be accomplished after the General Plan is approved.

### Inventory Summary

#### Unit Identification

The northern boundary of Carnegie SVRA extends for 4.2 kilometers (2.6 miles) along Corral Hollow-Tesla Road, which parallels the northern portion of the floodplain of the intermittent Corral Hollow Creek. The unit includes lands in the floodplain and the steep hillside slopes to the south.

Access to Carnegie SVRA from the nearest communities of Tracy, about 15 kilometers (9 miles) to the northeast, and Livermore, about 20 kilometers (12 miles) to the northwest, is by Corral Hollow-Tesla Road. This paved, two-lane road is actually referred to as Corral Hollow Road (County Road J2) in San Joaquin County, and as Tesla Road in Alameda County.

The principal geographical features in the SVRA are moderate to steep hillside slopes draining to a gently sloping floodplain of Corral Hollow Creek. The floodplain varies in width through the unit.

The SVRA is located in the Sierra Foothill and Low Coastal Mountain Landscape Province.

#### Summary of Resources and Evaluation

The following is a brief summary of the resource information contained in the Inventory of Features for Carnegie SVRA, compiled in 1980.

#### Natural Resources

##### a. Topography

The terrain of the Carnegie area is mostly composed of southwest-northeast-trending ridges with rounded tops and steep-sided canyons. The northern boundary of the unit is flanked by the floodplain of Corral Hollow Creek, which flows from west to east toward the San Joaquin Valley. Most of the hillsides in the unit are steep and rugged.

Elevations in the unit range from 180 meters (590 feet) at the northeastern corner to 531 meters (1,740 feet) atop a ridge in the southwestern corner. Slopes in the uplands range from moderately sloping (16 to 30 percent) along the ridges and lower slopes to steeply sloping (greater than 65 percent) along mid ridges (Figure 2).

b. Meteorology

The climate in the area is a semi-arid, Mediterranean type. Mean annual precipitation for the Corral Hollow area is 23 centimeters (9 inches), although wide variations occur from year to year. Most of the precipitation falls between October and April, during major winter storms. Localized showers are infrequent throughout the area. Annual temperatures range between a mean high of 24°C (75°F) and a mean low of 8°C (47°F). The month of highest mean maximum temperature is July, 35°C (95°F). Mean maximum temperatures during the winter months, November to February, average 14°C (58°F).

Persistent winds are characteristic of this area from spring to fall. Marine air flows through the canyons into the San Joaquin Valley, and results in moderately strong winds afternoon and evening. Winds from the north or east occasionally cause dry periods, and are sometimes accompanied by cold during the winter and spring.

During the winter, relative humidity is about 85 to 90 percent at night, and decreases to 60 or 70 percent during the afternoon. The driest part of the year is in the fall, when humidity ranges from about 30 to 50 percent.

c. Hydrology

The unit is in the Corral Hollow Creek watershed. This watershed covers about 11,420 hectares (28,220 acres) from its headwaters, 14 kilometers (9 miles) due south of the SVRA to the lower or eastern border of the unit. Lands in the unit represent only about 5 percent of the total watershed. The creek is intermittent through the unit, flowing only during and for several weeks after substantial rainfall. Creek flow meanders in the floodplain vary in width from 120 meters (400 feet) to 330 meters (1,100 feet). The creek channel itself is small, and is not well defined in the floodplain.

Several smaller intermittent side drainages flow northward into the main Corral Hollow Creek floodplain (Figure 3). These watersheds have a greater percentage of their area within unit boundaries. The westernmost side or subdrainage is 2 kilometers (1.3 miles) in length, and covers a total of 186 hectares (460 acres), of which about 90 percent is in the SVRA. OHV use in this subdrainage has been more extensive than in other parts of the unit. Excessive concentration of surface runoff in the eastern arm of this subdrainage (named Dead Cow Canyon), which has resulted from OHV activity, has created an incised stream that is, in some places, about 6 meters (20 feet) deep, and only a few meters wide.

Several small reservoirs are located in the unit, along the side drainages. These reservoirs were constructed primarily for livestock watering purposes before state acquisition. Although the reservoirs are small, between 83,000 and 145,000 cubic feet, they effectively contain the water flow in their respective drainages during normal rainfall years because of the small size of their upstream watershed area. All reservoirs are acting as debris basins for suspended sediments flowing toward Corral Hollow Creek.

Flooding can be expected to occur in the Corral Hollow Creek floodplain. A report on the flooding potential of lower Corral Hollow Creek was prepared for the county by the Federal Insurance Administration. However, the study area stopped 8 kilometers (5 miles) downstream of the SVRA. Using relevant data from this study, discharge flows at the lower end of the SVRA were estimated as shown below.

Table 2  
Peak Discharge

<u>Return Interval</u>	<u>Cubic Feet Per Second</u>	<u>Cubic Meters Per Second</u>
10 years	410	12
50 years	1,800	51
100 years	2,980	84
500 years	8,200	232

Annual flooding is generally confined to the main channel, with some spreading occurring at various locations. Five-year-interval flooding will cover much of the hollow with a shallow layer of water, mostly less than 0.3 meters (1 foot) in depth. Ten-year-interval flooding can be expected to cover 80 percent or more of the floodplain.

Suspended sediment, produced as a result of erosion, may have a significant affect on water quality. Erosion problems for the 95 percent of Corral Hollow Creek watershed outside the unit are probably moderate. Dirt roads and grazing in the upper watershed have increased erosion to above natural rates, although not dramatically. However, erosion rates are high for some lands in the unit. This is due to concentrated OHV use in certain areas. Where sediment traps (debris basins) are not constructed, the resultant discharge of suspended sediments in runoff flows during and shortly after rainfall is significantly higher than in non-disturbed areas.

Groundwater levels and amounts are extremely varied in the unit. Two wells drilled at Lawrence-Livermore Laboratory Site 300, near the hollow, show standing water levels of about 4 meters (13 feet). Shallow water sources are, generally, of poor quality; thus, wells are walled to depths in excess of 120 meters (400 feet). Water is then extracted from lower strata, that contain water of higher quality. However, groundwater quality is only fair, even when the source is deep.

d. Geology

Carnegie SVRA lies in the central Coast Range, a series of northwest-trending mountains composed of late Mesozoic sedimentary and metamorphic rocks, Cenozoic sediments, and associated intrusive and volcanic rocks. The rock types at the unit are almost entirely sedimentary in origin, and range in age from Holocene to Jurassic (5,000 years to 190 million years).

Lithologic features in the unit include the Franciscan Formation, the Panoche Formation, the Moreno Grande Formation, the Tesla Formation, and Quaternary alluvium.

The Franciscan Formation is an assemblage of graywacke, shale, altered volcanic rocks, chert, limestone, and peculiar metamorphic rocks. The bulk of the Franciscan Formation at Carnegie is graywacke. This graywacke is characteristically greenish gray, highly jointed, and well-hardened sandstone. Abundant milky white feldspar and dark rock fragments give the graywacke a salt-and-pepper appearance. Shale, quartz veins, limestone, conglomerate, gypsum, serpentine, schists, and greenstone are also present in the unit. Lenses of chert also occur throughout the Franciscan in the unit. Chert is a very hard mineral, and is usually white, brown, light green, maroon, or multi-colored. It forms many resistant outcrops.

The Panoche Formation in the unit consists of a fine to medium-grained, well-hardened sandstone and blue-gray shale. The sandstone is gray when fresh, and weathers to tan or buff. The shale weathers to a brown color. Outcrops of shale are few; a fairly deep soil cover has formed above the shales in many places. Shales observed contain some sand and carbonaceous materials. Marine fossils, mostly pelecypods, gastropods, and cephalopods, have been found in the Panoche Formation near the unit.

Few exposures of the Moreno Grande Formation are notable in the unit. This formation consists of shale and minor amounts of sandstone with buff-colored limestone concretions. Fossils found in the limestone concretions south of the SVRA many years ago contributed greatly to the knowledge of the radiolarian fauna of the Cretaceous period (65 million to 136 million years ago). Additional information on earlier life forms may be gained by future study of the limestone concretions in the unit.

Exposures of the Tesla Formation occur in the unit, in the hills just south of the hollow. White sands, buff sands, and sandstones, chocolate colored and gray shales, lignite seams, and conglomeratic beds are included in the Tesla Formation. The Tesla sands are generally poorly consolidated. Similarly, the sandstones are friable or easily crumbled. The sands and sandstones are quartz rich, with the white sands about 75 percent quartz. Feldspar is also a chief mineral in the sands and sandstones. Much of the Tesla shale has weathered to a fairly deep soil cover.

Quaternary alluvium is exposed along the Corral Hollow Creek floodplain. The alluvium forms a relatively thin cover over the older geologic features. The alluvium consists of gravel, sand, and silt derived from nearby older formations.

Portions of the Corral Hollow and Tesla faults lie in the SVRA. From the northwestern boundary of the unit, the Corral Hollow fault roughly parallels Corral Hollow Road through the Quaternary alluvium before joining with the Carnegie fault at the spring north of the trailer home currently located north of Corral Hollow Road. Southeast of the spring, the fault crosses the road and extends across the alluvium to the northeastern part of the unit. No surface expression of the fault in the Quaternary alluvium is noticeable. These two faults are considered not active by state standards, which means that there is no evidence of movement along the faults during the last 11,000 years. However, the SVRA is located in a seismically active area due to other nearby faults.

Since 1900, more than 120 seismic events (mostly less than Richter magnitude 3.5) have occurred in the central and eastern reaches of Livermore Valley, 10 kilometers (6 miles) northwest of the SVRA. Eight earthquakes of Richter magnitude 5.5 or greater have occurred since 1866 in this area. The most recent large earthquake, about 5.5 Richter magnitude, occurred in late January 1980 along the Greenville-Mount Diablo fault. The quake was centered about 16 kilometers (10 miles) northwest of the SVRA. Locally destructive earthquakes are likely to occur in the future.

The most intense ground shaking during earthquakes tends to occur on unconsolidated or poorly consolidated deposits. Generally, bedrock that has not faulted or been otherwise weakened tends to be more stable earth material during an earthquake. Areas that have experienced slope failures or that are at or near the limits of stability are susceptible to failure. Thus, areas in the unit where the most intense ground shaking would be expected to occur include the Corral Hollow Creek floodplain, the poorly consolidated sands in the Tesla Formation, steep roadcuts, and areas of past landsliding, creep, or piping. Earthquake-caused dam failures and subsequent flooding are not a problem in the unit. No moderately sized or large bodies of water are located upstream from, adjacent to, or on the site.

e. Soils

Several different types of soils occur in Carnegie SVRA, as shown in Figure 4. The following soil descriptions were taken from the U.S. Soil Conservation Service Preliminary Soil Survey for the SVRA.

The Corral Hollow Creek floodplain consists primarily of a Tesla-Riverwash complex. The Tesla soil series component makes up slightly over 50 percent of this soil. Tesla soils have a silt-loam surface texture. The underlying material, to a depth of about 1.5 meters (60 inches), is very cobbly sand and coarse sand. The Riverwash component in this area consists of unstabilized cobbly sediments washed downstream during high water flows.

Most of the steep grassland slopes just south of the floodplain occur on a Balcon Variant - Altamont-Apollo Variant complex. The Balcon component represents about 35 percent of the complex. This component is a deep and well-drained clay loam. Permeability of the soil is moderately slow, and runoff is very rapid, with a high water erosion hazard potential. The Altamont component is a clay soil with a very slow permeability. However, the infiltration rate is high when the soil is dry and surface cracks are open. Runoff on the soil is rapid, and the hazard of water erosion is moderate. The Apollo Variant component is a silty clay loam of moderate depth. Permeability of this soil is slow, and runoff is rapid. The hazard of water erosion is high.

The grassland slopes adjacent to Corral Hollow Creek floodplain in the western portion of the SVRA (in Alameda County), and the upper-elevation grasslands just east of the county line, are composed of the Altamont-Saurin Variant - Los Osos complex. This complex is 40 percent Altamont clay, 20 percent Saurin Variant loam, and 20 percent Los Osos loam. The Saurin loam is deep and well drained. It was formed in residual material derived dominantly from sandstone and shale. Runoff is rapid, and the hazard of water erosion is high. The Los Osos soil component in this complex is moderately deep and well drained. Runoff is rapid, and the hazard of water erosion is high.

The upland mountains, which are vegetated with oak woodland, are underlain with the Contra Costa Variant - Los Osos Variant - San Timoteo complex. Major components in this complex include 40 percent Contra Costa Variant shaly clay loam, 30 percent Los Osos Variant gravelly loam, and 15 percent San Timoteo fine sandy loam. The Contra Costa Variant soil is moderately deep and well drained. Below the 18-centimeter (7-inch)-thick clay loam surface layer is a subsoil to a depth of 88 centimeters (35 inches), which is very shaly clay loam over highly fractured metamorphised shale. The San Timoteo component is a deep, well drained, fine, sandy loam soil. It was formed in residual material derived mainly from calcareous sandstone. Permeability is moderately rapid and runoff is also rapid. Water erosion potential is very high.

Woody shrubs of the coastal scrub plant community in the upland region of the SVRA grow on the Henneke Variant - Reliz-Rock Outcrop soil complex. Major components of this complex include 30 percent Henneke Variant shaly clay loam, 30 percent Reliz cherty loam, and 20 percent rock outcrop. The Henneke Variant soil is moderately deep and well drained, and is derived from mainly metamorphised sandstone and shale. Permeability is moderately slow, and runoff is very rapid. The hazard of water erosion is moderate to high. The Reliz soil is shallow, with a cherty loam to about 5 centimeters (2 inches). The underlying material, to a depth of 50 centimeters (20 inches), is cherty clay loam over highly fractured chert. Permeability of the Reliz soil is moderate and runoff is very rapid. The hazard of water erosion is high. The rock outcrop component of this complex is composed of metamorphised sandstone or shale.

Major slope failures, such as large landslides, earth flows, or debris flows, are not apparent in the unit. Although the site is characterized by very steep slopes, the low amount of annual rainfall probably plays a major role in the relative stability of the slopes. The potential for large landslides, earth flows, or debris flows could be increased during periods of unusually heavy rainfall. Ground shaking resulting from earthquakes would also increase the probability of major slope failure.

Soil creep and piping (subsurface tunneling of runoff) are fairly common in certain soil types in the unit. In addition, several small landslides have occurred in the area. The largest landslide observed covered an area of less than 200 square meters. Most current landslide movement is occurring along roadcuts made in very steep slopes of poorly consolidated materials. Along Los Osos Road, just southeast of the entrance, poorly consolidated Tesla sands are sloughing onto the road. Much of the vegetation above the road has been lost; thus, there is nothing to hold the loose sands in place. Similar problems occur elsewhere on the site, such as in the Tesla sands along Pottery Loop Road south of the midget car track. Future roadcuts in very steep slopes composed of Tesla sands or other poorly consolidated materials would also be expected to produce unstable slopes.



Soils at Carnegie reflect a wide variability in profile development and texture. The erosion pattern that characterizes these soils also reflects this variability. Textures are dominantly loamy or clayey in nature, and are easily compacted. As a result, the soils take on a cement-like packing, with a thin veneer of loose material produced from mechanical disturbance by OHV use. Soil removed by runoff from these slopes takes the form of sheet and rill wash, processes that tend to mask evidence of substantial soil loss when compared to gully erosion. Only in a few areas where trails have actually been excavated by repeated use of the same rut has gully development been observed. In many instances, water draining from improperly drained or graded roads and trails indirectly contributes to development of gullies along natural drainages. Along Dead Cow Canyon, for example, intensive OHV use on the hillslopes surrounding the canyon and creation of a trail down the center of this previously undisturbed drainage has resulted in formation of an unstable gully measuring 1.5 meters (5 feet) wide and 9 meters (30 feet) deep in some places. Aerial photographs of the area taken in 1969 show that this gully did not exist at that time. Measurements taken in the rainy season of 1979-80 indicate that the channel is widening and deepening along its entire length. Due to the steep slopes and soil types occurring in the SVRA, soil erosion will be a continuous maintenance problem.

f. Plant Life

Carnegie SVRA is in the California Floristic Province. This province extends throughout cismontane California, and includes plant life especially adapted to warm Mediterranean climates of wet, mild winters and long, dry summers.

More specifically, the Corral Hollow area appears to be in a botanical transition, both north and south and coast to inland. This transitional situation is brought about in part by the area's geographical position between the province's northern and southern floras, and by its desert-like climate at the inland fringe of an area of marine influence.

Four plant communities are represented in the unit: Blue Oak Woodland, Central Coastal Scrub, Annual Grassland, and Riparian.

Blue Oak Woodland: The Blue Oak Woodland community occurs sparingly on the lower hills of the unit near the drainages and on steep north-facing slopes; it occurs extensively on many of the steep slopes in the higher (southern) portion of the unit. This community is dominated by blue oak trees in an open savanna, with grassland understory. On dry or fine-textured soils, trees are widely spaced. On moist or rocky sites, tree spacing averages 5 meters (16 feet), with canopies occasionally, but not often, touching.

Associated trees include buckeye, usually occurring near the base of slopes on more moist sites, and California juniper, widely scattered in woodland at the upper elevations of the unit. Both trees are minor associates, and make up less than 5 percent of the woodland trees.

The understory grassland consists of annual grasses and wildflowers. Common species include wild oats, brome, miner's lettuce, fiddleneck, larkspur, and shooting star.

Central Coastal Scrub: The Central Coastal Scrub community is widespread on steep canyon slopes in the upper portions of the canyons in the unit. It is geographically and environmentally intermediate between Northern Coastal Scrub and Coastal Sage Scrub. Shrub stands are usually quite dense, lacking the grassy openings of Northern Coastal Scrub, and with greater crown overlap than Coastal Sage. Herbaceous species are few in number. Dominant shrubs are California sagebrush, black sage, and malacothamnus. These occur in mixes, but oftentimes with one more dominant, and occasionally with one nearly absent locally. Coastal sagebrush is the most prevalent shrub in the grassland fringe areas. Local conditions, particularly soil and moisture, account for the variability in the scrub community.

Shrub associates include nightshade, yerba santa, goldenbush, and bush monkeyflower. In moist areas, scrub species composition is more characteristic of coastal areas, and includes poison oak, blue elderberry, gooseberry, and toyon.

Annual Grassland Community: The grassland community is the most widespread in the unit. It is the predominant community throughout the lower, northern half of the unit, and along the south-facing and more gradually sloped hillsides and ridges in the upper portion of the unit. Annual grassland is dominated by annual forbs, many of which have showy blossoms. Common species include brome, wild oats, fescue, lupine, filaree, fiddleneck, and bluedicks.

Riparian: The Riparian community consists of water-loving plants that occur in narrow strips along drainage courses. Riparian communities in the unit are mainly shrubby thickets, with few associated herbaceous species. These occur in the major tributary drainages that feed into Corral Hollow, and in low river scours of Corral Hollow.

A small grove of cottonwood trees at the east end of the unit in Corral Hollow is supported by subsurface water most of the year. Understory vegetation consists of annual grasses and forbs.

The dominant shrub in canyon riparian areas is desert olive. Stands of desert olive in the unit may represent the northernmost limit of this species' geographic range. Arroyo Mocho, the first major drainage to the south of the unit, is noted in the literature as the historically known northern limit of the plant. Desert olive in the unit occurs in dense thickets. A minor, but common, associate is western golden currant. In fewer places in the canyons are willows, elderberry, and poison oak.

The narrow riparian shrub stands along scours in Corral Hollow consist almost entirely of mule fat.

There are no known sightings of rare, endangered, or threatened plants in the SVRA. However, there are three rare or endangered plants recognized by the California Native Plant Society that are known to occur in the vicinity of the unit. One of these, the large-flowered fiddleneck, has been officially listed by the state, and is protected by law. A brief search for the fiddleneck was made in the spring of 1980 in the unit, without success. The likelihood of any rare or endangered plants occurring on the unit has yet to be determined.

g. Animal Life

Carnegie SVRA is in the California Wildlife Region. This region includes most of the lowlands and foothills of California, except for the deserts and northwest coastal forest. One characteristic of this region is that it has periods of dryness lasting many months. Many animals avoid these periods by either migrating to moister areas or going into estivation.

The distribution of wildlife at Carnegie is closely associated with the different plant communities.

Oak Woodland: The Oak Woodland community is important to many species of birds. The trees provide shelter and forage for species such as the red-shafted flicker, acorn woodpecker, western flycatcher, western bluebird, and great horned owl. Many other birds that feed in the grassland community roost in the oak woodland area.

Mammals occurring in this community include the California meadow mouse, California pocket mouse, Beechy ground squirrel, Botta pocket gopher, and black-tailed hare. Larger mammals such as the black-tailed deer, badger, gray fox, and bobcat also occur in this type of habitat.

Amphibians and reptiles found in the area include the coast range newt, California slender salamander, California toad, western fence lizard, northern alligator lizard, Pacific gopher snake, California king snake, and Northern Pacific rattlesnake.

Coastal Scrub: The dense vegetation of the Coastal Scrub community provides excellent shelter for many animals. The reptilian fauna is rich in this community because of the many rocky areas. Species such as the western fence lizard, California side-blotched lizard, California king snake, Pacific gopher snake, and Northern Pacific rattlesnake are among the more common kinds found.

Mammal species found in the scrub community include the brush mouse, dusky-footed wood rat, brush rabbit, coyote, and black-tailed deer. Representative birds in the area include the brown towhee, California quail, and roadrunner.

Grassland: Many amphibians and reptiles are also found in the grassland areas, feeding primarily on the abundance of insects. Common species include the western spade-foot and western toad, Gilbert's skink, western fence lizard, and leopard lizard. Snakes found in the area include the Northern Pacific rattlesnake, western racer, and Pacific gopher snake.

Birds inhabiting the grassland include the western meadowlark, savannah sparrow, horned lark, and killdeer. Many other birds, although not full-time grassland residents, visit the area to feed. Raptors such as the red-tailed hawk, American kestrel, prairie falcon, and white-tailed kite are commonly seen flying over the grassland hunting for rodents and small birds.

Mammals found in the grassland community include many species of rodents that feed on plants, seeds, and insects of the area. Common rodents include the western harvest mouse, California meadow mouse, deer mouse, Botta pocket gopher, California pocket mouse, and Beechy ground squirrel. The black-tailed hare and Audubon cottontail may also be seen in this community.

Mammals such as the badger, gray fox, and coyote hunt in the grassland area. They feed mainly on various species of small mammals. Black-tailed deer also visit the community, particularly during the spring.

Riparian: Riparian habitats are very important to many animals as watering and feeding areas. Some animals, especially the amphibians, also depend on the riparian areas for breeding and survival, since moist conditions are required. During the dry months, the importance of the riparian habitat is magnified, especially areas where free water is normally present throughout most of the year.

Common amphibians found in this habitat are the tiger salamander, western toad, and Pacific tree frog. Reptiles commonly found are the Gilbert's skink, western whiptail, Pacific gopher snake, western garden snake, and Northern Pacific rattlesnake.

The riparian habitat provides excellent shelter, and attracts many birds. The more common species are the killdeer, white-crowned sparrow, golden-crowned sparrow, dark-eyed junco, Bewick's wren, red-winged blackbird, and California quail.

Field studies indicate that the riparian communities have greater diversity and density of small mammals in comparison to other biotic communities in the unit. This shows the importance of the riparian habitat on which many wildlife species depend. Small mammals in the area include the desert wood rat, dusky-footed wood rat, deer mouse, California mouse, Herrmann's kangaroo rat, and Beechy ground squirrel.

Other mammals found in the riparian habitats are the Audubon's cottontail, black-tailed hare, striped skunk, badger, raccoon, coyote, and black-tailed deer.

No sightings of any rare, endangered, or threatened wildlife species are known in the unit. However, the area is within the known geographic range of the Alameda striped racer, which is listed as rare by the California Department of Fish and Game. The Coastal Scrub community in the unit may provide suitable habitat for this snake. No field studies have been conducted to determine if this species actually occurs in the unit.

The SVRA is also within the known range of the San Joaquin kit fox. The kit fox is listed by the federal government as endangered, and by the California Department of Fish and Game as rare. However, no sightings of this fox are known from the unit.

The Corral Hollow Ecological Reserve, managed by the California Department of Fish and Game, is located in the Corral Hollow Creek drainage, 3 kilometers (2 miles) downstream from Carnegie SVRA. This 40-hectare (100-acre) reserve was established in 1977 to preserve key habitat for an array of amphibians and reptiles.

## Cultural Resources

A complete cultural survey and inventory of Carnegie SVRA of all accessible areas in the unit was conducted during November 1979.

a. Native American Resources

Only one Native American site was found during the Cultural Heritage Planning Section's survey. The Carnegie pre-historic site (C.P.I. -- temporary designation) is a milling station situated on a level area overlooking the confluence of two large drainages. A number of blue oaks are located nearby. C.P.I. covers about 1,400 square meters (1,666 square yards), and is about 1 meter (1.1 yard) deep. Artifacts found include three mortars and a dozen chert flakes. The lack of artifacts and the small size of the site suggest that C.P.I. was a seasonal acorn procurement and processing site used by a small number of people.

b. Euroamerican Resources

Euroamerican resources at Carnegie SVRA are concentrated for convenience in six zones. Zone one consists of a lime kiln, four quarries, and two tunnels. Zone two contains the former Carnegie townsite and factory. Zone three contains part of the former site of a pottery plant, and zones four and five contain coyote holes (i.e., exploratory mining). The sixth zone consists of the Carnegie well and reservoir (see Figure 5).

The lime kiln in the first zone, constructed in the hillside, consists of uncoursed mortared rock rubble with a firebrick lining. The kiln is 5 meters (17 feet) high along its exposed side and has an inside dimension of 4.5 meters by 3.0 meters (15 feet by 10 feet). An unmortared rock retaining wall extends along the exposed slope on both sides of the kiln. There are two fire door openings at the base of the kiln along the eastern side of the structure that allow entrance to the interior. The kiln (built in about 1892) represents the first structure built (and, surprisingly, the last standing) connected with the Carnegie townsite.

Four quarry areas and two mining tunnels are associated with the lime kiln. Two quarrying areas are located south of the kiln along the dirt road, at distances of 45 and 135 meters (150 and 450 feet). The quarry site, 45 meters (150 feet) south of the kiln, has a mining shaft associated with it. The other two quarries are north of the kiln along the dirt road, at distances of 74 and 188 meters (245 and 625 feet). The quarry, 188 meters (625 feet) north of the kiln, also has a mine shaft associated with it. These quarrying areas were used to procure limestone rock that, in turn, was burned in the kiln to produce lime.

The second historic zone consists of the Carnegie townsite and factory area. Fifteen different features were identified and recorded during the Cultural Heritage Planning Section's survey and records search. Features identified range from building foundations, brick kiln ruins, motor mounts, railroad ties, sidings, and spur lines to the former brick factory. These features, along with brick and scatter, are all that remain of Carnegie after its destruction in 1916, and after years of vandalism. (See the Inventory of Features for Carnegie SVRA for additional historical information.)

The third zone consists of part of the site of a former ceramic pottery plant, located on the northwestern corner of the SVRA boundary. Most of the site lies off state property. A concrete machine mount and brick rubble and a possible kiln site were recorded (the site area on state property measures 30 meters by 15 meters (100 feet by 50 feet).

The fourth zone consists of three coyote holes dug into the hillside, 75 meters (250 feet) above the lime kiln in zone one. All holes were cut into poor quality limestone outcrop. The holes range in size from 1.8 to 3.0 meters (6 to 10 feet) in diameter, and have an average depth of 1 meter (3 feet).

The fifth zone consists of a single coyote hole dug into a limestone outcrop on a bench overlooking Corral Hollow. The hole was cut in the shape of an irregular rectangular trench, about 15 meters (50 feet) long by 2 meters (6 feet) wide. This area might have been the site of a limestone rock crusher, although documentation is lacking.

The sixth zone consists of the Carnegie well and reservoir, located across from the main property and to the north of Corral Hollow Road. These wells were dug in the early 1890s, and supplied water to the Carnegie Brick and Pottery Company and surrounding residences. The wells are operating, and maintain the reservoir to capacity. Three mobile home trailer pads for staff residences are located on the property.

### Aesthetic Resources

Esthetic resources associated with Carnegie SVRA include both visual and auditory features. These resources are primarily those that can be experienced in the unit, but also include characteristics of the area that can be seen or heard from adjacent lands.

Several deeply entrenched canyons occur in the unit, some of which have natural springs or seeps associated with them. Vegetation growing in the bottoms of these canyons is lush and diverse. In contrast, the middle and upper slopes of the canyons are more droughty, and support grassland, scrub, and oak woodland vegetation. The floodplain of Corral Hollow Creek contains large valley oaks, cottonwoods, and other riparian vegetation. These contrasting vegetation types provide interesting and pleasing patterns to the eye. With the changing seasons, the differing vegetation communities offer a variety of textures, patterns, and colors.

Broad, sweeping panoramas can be viewed atop the three main ridges in the unit. To the north, the grass-covered hills owned by the Lawrence Livermore Laboratory can be seen. In the spring, these hills are ablaze with the colors of wildflowers. To the east, the San Joaquin Valley is visible, with its diverse pattern of agricultural use. On especially clear days, the Sierra Nevada can be seen. Tree, brush, and grass-covered hillslopes are visible to the south and west, but are more limited in scope due to the more rugged terrain. Middle-ground vistas include vegetation edge zones between grass and scrub communities and grass and oak woodland communities.

Several land uses have created scenes that contrast with the natural landscape of the area. The hillclimbs at Carnegie are among the most visible features in the unit. The heavily used north-facing hills along the hollow are partially denuded and eroded. This area is highly visible from Tesla-Corral Hollow Road. Other areas in the interior of the unit also show signs of eroded conditions. Firebreaks cut along the east, south, and west boundaries of the unit are very visible from major vantage points. Large steel towers that support several high-voltage electric transmission power lines are located along the entire length of the hollow, and are highly visible from Tesla-Corral Hollow Road.

The principal auditory features associated with Carnegie SVRA, other than natural sounds, include the noise generated by OHVs in the unit and off-site noises from adjacent lands.

Noise levels from OHVs in the unit vary depending on the extent of use, which varies with the season, the time of week, and the time of day. During winter, early spring, and late fall, overall riding conditions are at their peak, and it is during these times of the year that the most concentrated use of OHVs occurs. Noise levels from OHVs also seem to vary, depending on their locations in the unit. In and around unloading areas, the hillclimbing areas, and in the three motocross tracks, the noise emanating from large concentrations of dirt bikes is significantly greater than the noise heard on individual roads and trails.

Off-site noise mainly emanates from the research facilities at the Lawrence Livermore Laboratory and the Stanford Research Institute. Before conducting any blasting tests, these facilities will sound a warning siren to allow workers to evacuate the immediate test site. These sirens sound for three to five minutes, and can be heard in most areas in the unit. The number of sirens heard at the unit during a single week varies, depending on weather, the testing schedule, and air quality conditions. The explosions themselves are barely audible in most cases. The sounds of firearms can also be heard emanating from the rifle range located on Lawrence Livermore Laboratory property, directly across Corral Hollow Road from the unit. Shooting takes place in sessions involving two to six people, and consists of volleys aimed at stationary targets placed at varying distances from the firing line. Sounds from this area can be heard from most points in the SVRA.

#### Recreational Resources

Off-highway-vehicle activity has taken place on the unit for about 20 years, under ownership of several parties. Use has been mainly by motorcycle enthusiasts, although four-wheel-drive vehicles were admitted at Carnegie in the past. Use of the area by four-wheeled vehicles was discontinued by the prior owner about three years ago, due to the high accident rate that accompanied the combined use of two-wheel and four-wheel vehicles.

A racetrack was built on the property in 1977 by the Central Valley Modified Midget Association, for the specific purpose of racing modified midget race cars. These are vehicles with engines of 250 cubic centimeters displacement (40 to 60 horsepower), and can reach a maximum velocity of 65 kilometers (40 miles) per hour.

Motorcycle riders at Carnegie can participate in several different activities. There is an extensive network of unpaved trails and roads throughout the unit. Several motocross courses are scattered throughout the northern half of the property. Hillclimbing is the main attraction. Most areas being used are located on the north-facing hills along the hollow, although there are several areas in the backcountry that are also used for hillclimbs. The motocross track and the hillclimbs are concentrated in the northern half of the unit, because the soil and vegetation are more amenable to these activities.

Use by motorcyclists is concentrated during the cool, wet months of the year (November through April). Summers are generally too hot and dusty for most riders. Weekly use is concentrated on Saturday and Sunday, with most people traveling to the unit in the morning and returning to their homes in the evening. No overnight camping is now permitted. Since the unit was opened by the state in January 1980, average daily attendance has been about ten motorcycles per day on weekdays, and 200 motorcycles per day on weekends. However, during peak riding conditions, 350 to 400 bikes per day are not uncommon on weekends.

## Resource Policy Formation

### Classification

Lands in Carnegie SVRA were acquired by the state with money from the Off-Highway-Vehicle Fund. Planning, acquisition, and development of the site for off-highway-vehicle use was authorized by legislative action (Section 5006.48, Chapter 1, Division 5, Public Resources Code).

Carnegie was classified as a state vehicular recreation area in July 1980 by the State Park and Recreation Commission.

The following definition of a state vehicular recreation area, as described in the Public Resources Code, Division 5, Chapter 1, Article 1.7, Section 5019.56c, includes references pertinent in plan formulation for resource management and recreational development.

"State vehicular recreation areas...consist...of areas where topographic features and associated recreational vehicle opportunities are the primary values. Such areas shall be chosen to insure that no substantial natural values are lost and that no adjoining properties incur adverse effects from the operation and maintenance of vehicular recreation areas. When important natural, scenic, or cultural values are found to be present within the boundaries of a state vehicular recreation area they shall be defined within a natural preserve or a cultural preserve. The development of facilities shall be aimed at making full public use of the recreational opportunities present, and the natural and cultural elements of the environment may be managed or modified to enhance the recreation experiences. Under all circumstances, conditions of accelerated and unnatural erosion shall be anticipated and prevented to the extent possible. Where the occurrence of such erosion is unanticipated, every measure shall be taken to restore the area."

No portion of the SVRA is proposed for reclassification to either a natural or cultural preserve.

### Declaration of Purpose

The primary purpose of Carnegie State Vehicular Recreation Area is to make available to the public opportunities for recreation use of off-highway vehicles; to manage this use in the interest of visitor safety and long-term use of the site for off-highway-vehicle recreation; to provide appropriate related facilities to serve the needs of present and future off-highway-vehicle users; and to protect, perpetuate, and interpret special natural, scenic, and cultural values in the unit.

The prime resource of Carnegie SVRA is the recreational value of the Corral Hollow Creek floodplain and the adjacent hillside slopes. Certain natural and cultural values in the unit are also prime resources, and can provide recreational and interpretive opportunities, as well as opportunities for scientific study.



## Zone of Primary Interest

The department has concern for all lands adjacent to the unit where any new development or land use change could adversely affect the stated purpose of the unit and the management objectives.

## Resource Management Policies

### Natural Resources

#### a. Meteorology

Detailed information on selective meteorological factors such as rainfall distribution, rainfall intensity, wind, and temperature is necessary for long-term management of Carnegie SVRA. Site-specific data are essential for nearly all aspects of resource management, but are particularly important for evaluating erosion potential and developing stabilization programs.

Policy: The recording tipping-bucket rain gauge, installed in the unit in January 1980, shall be maintained to obtain needed rainfall intensity data. Non-recording rain gauges may also be needed in some locations for specific management purposes. The recording hygrothermograph installed in the unit in January 1980 to record temperature and humidity shall also be maintained. Continuous records shall be kept from these instruments.

#### b. Hydrology

Hydrologic features in Carnegie SVRA and the greater Corral Hollow drainage directly influence erosional patterns and the rate of sedimentation and runoff. Significant adverse impacts may occur as a result of OHV use, unless steps are taken to properly mitigate problem areas.

Policy: Sediment-load concentrations in Corral Hollow Creek and other smaller drainages in the SVRA shall be monitored over a variety of flow conditions. It is essential that various runoff conditions be monitored so estimates of the amount of sediment discharge may be made. Data from this monitoring are needed to design debris basins, to develop other mitigation measures, and to evaluate the effectiveness of resource management efforts.

Construction of debris catchment basins in the unit is not the ultimate answer to erosion-sedimentation problems, but basins are necessary to minimize sediment discharge to sites downstream of the SVRA, and to trap soil material needed for reclamation and rehabilitation of eroded areas.

Policy: Debris catchment basins shall be constructed at various sites in the unit. Placement of a debris basin near the mouth of management compartment F, Figure 3, is essential to improve water quality in Corral Hollow Creek, and to minimize adverse off-site impacts. This basin need not be large, because inflows at this point are low. A basin in this location should be designed to contain 50,000 to 100,000 cubic feet (about 1 to 2 acre-feet). The location and size of other debris basins to be developed in the unit shall be determined after evaluation of ongoing monitoring information. Runoff in the unit will have to be contained for extended periods in the debris basins because of the fine texture of the sediment and correspondingly very low settlement rate.

Policy: Culverts under roads in the unit shall be properly engineered and constructed to prevent road washouts from side drainage, and also to decrease sediment loads. Due to normally low rates of surface runoff in the area, such construction need not be extensive. Normally, culverts should be sloped at about 10 percent, due to the potential for sediment buildup immediately upstream.

c. Geology

Carnegie SVRA is located in a region that has a history of seismic activity, and locally destructive earthquakes are likely to occur in the future.

Policy: Construction of major debris basins in the SVRA shall be reviewed by a qualified engineer/geologist for potential safety hazards and possible downstream damage that may be associated with failure of any earth or concrete barrier during seismic events.

Several pits and mines occur in the unit.

Policy: All potentially hazardous mines, such as the coal mine near the existing midget car track, shall be properly abandoned or otherwise brought to a non-hazardous state.

Important paleontological finds have been made in the Corral Hollow vicinity. Additional paleontological resources of importance may occur in the unit.

Policy: As fossils become exposed through normal use of the unit, they shall be collected by paleontologists or properly-trained unit staff as designated by the department's geologist and area manager. Careful records shall be kept of all paleontological finds, and fossils shall be properly identified by qualified persons. Specimens may be stored or displayed in the unit (in adequate facilities), or at a designated repository, in accordance with the department's artifact management policies.

d. Soils

The physical and chemical properties of different soil types are among the most important factors to be considered in the planning and management of OHV use. Each soil type at Carnegie was evaluated for its erodibility, depth, and fertility. Erodibility is a measure of the susceptibility of the soil to disturbance by water, wind, or mechanical means. Information on the depth of a soil is needed to determine acceptable limits of erosion. This information is necessary when evaluating rehabilitation or reclamation potential. The fertility of a soil is also an important factor to consider in terms of rehabilitation or reclamation potential.

Based on evaluation of the various soils and slopes at Carnegie, different OHV use zones have been established. The types of OHV activity appropriate in each of the three use categories are explained in detail on page 29. Generally speaking, only trail riding is planned on soils that are shallow and highly erodible, such as the rocky soils in the southern portion of the unit. Open riding is planned for areas where soils are not as susceptible to erosion, such as the clay-type soils on the hillside slopes adjacent to Corral Hollow Creek. Soils in this portion of the unit are also relatively deep, which indicates that they can be eroded to a greater depth than the shallower soils before reclamation or rehabilitation becomes necessary.

Policy: Hillclimbing activities shall be restricted to the hills adjacent to Corral Hollow. In this area, soils mapped as Altamont clay (0-65 percent slope) and Saurin loam and clay loam (0-65 percent slope) shall be preferred for intensive hillclimbing. The severely eroded area in the Dead Cow Canyon watershed, which is partially mapped as Altamont clay, shall be temporarily closed to hillclimbing until rehabilitation is accomplished.

Policy: Preferred sites for future motocross tracks shall be areas mapped as Tesla silt loam (0-3 percent), Altamont clay (0-65 percent), and Saurin loam variant (0-65 percent). (See Soils Map, Appendix.)

Policy: Monitoring programs shall be established to evaluate changing soil conditions. These programs may include installation of "soil bridge" transects along selected trail segments (a soil bridge measures the vertical loss of soil resulting from pluvial and mechanical erosion), and continued monitoring of soil loss from established erosion plots.

e. Biotic Resources

Desert olive occurs in the unit, in a riparian area located in the bottom of the steep-sided canyon in watershed compartment H, Figure 3. The previously known northern limit of this plant is noted in the literature as the first major drainage to the south of the unit.

Policy: Stands of desert olive in the unit shall be protected, since they appear to be the northernmost limit of this species range.

Three rare or endangered plants recognized by the California Native Plant Society are known to occur in the general vicinity of the unit. Due to the limited field studies done on the site, the likelihood of any of these occurring on the unit is still uncertain.

Policy: Further efforts shall be made to determine if any officially rare or endangered plants occur on the unit. If such plants are found, management plans shall be prepared and implemented to ensure their perpetuation.

Policy: Before the loss of 50 percent of the vegetative cover in a given watershed management area, that area shall be closed for rehabilitation that shall include revegetation. Species native to the plant communities of the specific area shall be preferred for revegetation.

A major limiting factor in the survival of many plants and animals in semi-arid regions such as Corral Hollow is the availability of water. Springs in Carnegie are biologically significant in terms of their importance, not only to resident wildlife but also to wildlife that migrate through the region.

Policy: Major springs and other recognized important riparian areas in the unit shall be managed to protect and perpetuate their natural values.

## Cultural Resources

Management of the cultural resources at Carnegie SVRA is governed by statutes, policies, and directives. The following portions of the Public Resources Code pertain to management of cultural resources: Chapter 1, Section 5006.48, 5019.74, Chapter 1.7, Section 5097.5, and Chapter 1.75, Section 5097.9.

The following Resource Management Directives pertain to the cultural resources of Carnegie SVRA: 13, 15, 16, 20, 21, 22, 24, 25, 32, 50, 51, 52, 54, 58, 59, 60, 63, 64, 65, 66, 67, 69, 70, 71, and 72.

The sensitivity of the Native American site, Carnegie Prehistoric 1 (C.P. 1 temporary designation), or any site, for that matter, is based on the type of site, the current condition of the site, and its potential for destruction. Sites composed entirely of bedrock outcrops with mortars are generally less sensitive to weathering and visitor impact. Sites with cultural debris and/or artifact scatters tend to be quite sensitive to weathering and human impact. Over the years, C.P. 1 has been damaged and eroded by runoff, cattle, and motorcycles.

Policy: The Carnegie Prehistoric 1 site (C.P. 1) shall be protected from further damage by designation as a limited use area. Vehicular use shall be limited to designated open trails in this area, and all trails shall be located away from the cultural resource, thus forming a buffer zone.

Policy formation for Euroamerican resources at Carnegie SVRA shall be taken in order of their presentation in the Inventory Summary portion of this element, page 18.

### Zone One: Carnegie Lime Kiln and Quarries.

Policy: Vehicle use, other than on the unimproved road adjacent to the kiln, shall be limited to trails directed away from the kiln, in an effort to prevent damage to the kiln. The kiln shall be fenced along its eastern side to prevent entrance, and around the top for safety considerations. The lime kiln and quarries offer interpretive value on one of the older European industries in California, limestone burning. Early industrial and construction methods, as well as the kiln's importance and support to brick manufacturing at Carnegie, are important interpretive themes.

The entrances to the two mining tunnels associated with the kiln shall be sealed for safety considerations.

### Zone Two: Carnegie Townsite and Factory.

Policy: It shall be the department's policy to prevent further damage to the resource by restricting visitor access in this area. Culturally sensitive areas in the factory site shall be fenced with suitable materials, to restrict access. Vehicle use shall be limited to trails through the townsite and appropriate parking for interpretive purposes. Brick and terra cotta scatter shall not be removed. The Carnegie townsite and factory area offers interpretive values into early California transportation, coal mining, company towns, and production of building materials.

The department shall replace the California Historical Landmarker #740 located beside Corral Hollow Road that was lost to vandalism.

Zone Three: Pottery Ceramic Plant Site.

Policy: Recording the remaining pottery site adequately protects this resource. Visitor use in this area would not affect the remaining resources.

Zone Four: Coyote Mining Holes.

Policy: Recording the location of the coyote holes protects the resource, and visitor use need not be restricted.

Zone Five: Single Coyote Hole and Possible Limestone Rock Crusher Site.

Policy: Recording the site adequately protects the resource, and visitor use will not be restricted, except for safety considerations.

Zone Six: Carnegie Well and Reservoir.

Policy: Limited development may take place here (for example, additional ranger residences) after review by the Resource Protection Divisions's Cultural Heritage Planning and Cultural Resource Management Sections.

Aesthetic Resources

High noise levels that are capable of being produced by unmuffled vehicles can be a health hazard to users as well as a nuisance factor to nonparticipants. Excessive noise can also adversely affect wildlife resources.

Policy: Noise levels shall not exceed applicable OSHA noise standards for 24-hour exposure at or beyond the boundary line of the SVRA. In the SVRA, similar limits shall be met in areas of permanent human habitation (e.g., residences). All vehicles operating in the SVRA shall meet applicable noise limits set in the State Vehicle Code.

Allowable Use Intensity

General Land Use Management

a. Containment of Off-Site Impacts

Before state acquisition, OHV use was somewhat controlled in the area, but very few resource management measures were implemented. A few of the past OHV use areas are highly eroded and seldom used because of hazards or poor riding conditions. These areas will continue to erode at a high rate unless proper measures are taken. The impacts of erosion and sedimentation can extend far beyond the areas being used by OHVs unless precautions are taken. Increased sediment discharged from the unit, if not checked, may significantly affect the downstream ecosystems, including the Corral Hollow Ecological Reserve, and is forbidden by law (Public Resources Code, Section 5019.56).

Policy: Mitigation (largely containment) of off-site impacts resulting from OHV use which has occurred or is now occurring in the SVRA shall be of highest management priority.

Boundary markers that are clearly visible to users are essential to effectively manage OHV use in the unit.

Policy: The boundaries of the SVRA and the different types of use zones shall be clearly marked by signs, fences, barriers, or combinations of these, as appropriate. Signs shall be clearly visible to, and worded for, the benefit of SVRA users.

b. Watershed Management

The resources in the SVRA shall be managed on a watershed basis. Watershed management compartments are shown in Figure 3.

Policy: Accelerated erosion and sedimentation resulting from OHV use in each compartment shall be contained in that compartment, to the greatest extent feasible.

Policy: OHV management in each watershed shall be based on a general watershed rehabilitation analysis which shall consider:

1. The expected extent of use (e.g. area, estimate of numbers of users per period of time);
2. The recreation demand for different types of terrain for OHV use;
3. The expected impact of OHV use -- both on and off-site;
4. The expected length of time OHV use can reasonably be expected to occur;
5. The mitigation or maintenance measures (including estimated frequency of such measures) necessary to provide for compliance with Section 5019.56c of the Public Resources Code;
6. The equipment and staff necessary to handle No. 5 above; and,
7. The necessary installation of capital improvements (e.g., debris basins).

Policy: If, at any time, the department lacks the ability to properly manage part or all of the given watershed, use areas shall be reduced in size so they can be properly maintained. A department objective shall be to properly rehabilitate closed areas within one year.

Policy: When it is determined that vehicle use in an area is causing significant adverse impacts to occur on adjacent properties, use of the specific area shall cease until containment is achieved and a repetition can be avoided.

c. Reclamation and Rehabilitation\*

Reclamation and rehabilitation efforts will play a key role in management and perpetuation of OHV activity in the unit.

\* Reclamation refers to returning the use site and any adjacent areas affected by OHVs to a stable natural state where use is no longer permitted; rehabilitation refers to returning the site to a condition where use is to be permitted through routine maintenance or more extensive rehabilitation efforts.

Policy: When a trail, hillclimb, or use area is no longer desirable to riders for use, it shall be promptly reclaimed or rehabilitated. Rehabilitation shall be a high management priority.

Policy: No area shall remain open to OHV use if it has been determined that the area cannot feasibly be rehabilitated or reclaimed. A specific watershed rehabilitation analysis shall be made before the approval of intensive or organized OHV uses in areas designated for "trail use". This analysis shall consider the expected materials (plants, fertilizer, soils, etc.), staff, and other important factors necessary for complete rehabilitation of the specific use area.

d. Temporary Closure Restrictions

During and after periods of sustained rainfall, soils in the unit are far more susceptible to OHV impact. When soils are wet or saturated, they are easily rutted or compressed during passage of vehicles. These ruts may subsequently begin to serve as drainage channels, and gullying can quickly occur.

Policy: To minimize erosion problems and costly maintenance, temporary closure of portions or all of the SVRA may be invoked during and after periods of significant rainfall.

e. Non-Conventional Vehicles and Accessories

The resource management guidelines and OHV use zones were established for expected use of the area by conventional OHV equipment, including motorcycles and four-wheel-drive vehicles with highway or rubber off-highway tires. Non-conventional vehicles and accessories can cause excessive disturbance to the land which can significantly reduce the period of time that any area can be used for OHV activities.

Policy: Special vehicles and accessories, such as "widowmaker" tires, chained tires, or tracked vehicles, shall not be allowed in the unit unless special permission is given by the area manager. The area manager shall have the authority to prohibit use of any vehicle or accessory that is inappropriate in the SVRA.

f. Resource Management Staffing

There is a need to budget for a resource management position available to Carnegie SVRA. This person is needed to advise and assist in the technical responsibilities of resource management. Typical duties would include establishment of soil and hydrologic monitoring stations, analysis of monitoring data, and development and implementation of rehabilitation and sediment control programs that are essential to successful operation of the unit.

Use Intensity

The Public Resources Code (Division 5, Chapter 1, Section 5019.5) requires that a land carrying capacity survey be conducted on lands in the State Park System before a development plan is formulated. The purpose of the survey is to determine appropriate use and levels of use for areas in the unit by evaluating recreation potential and limiting or controlling factors, such as slope, soils constraints, erosion potential, geologic hazards, and biotic and cultural sensitivities.

?  
Goal of  
Salting  
US #/yr

"Carrying capacity," in the recreation context, can be defined as the optimum number of recreationists that can visit or use an area over a period of time without directly or indirectly causing the recreational, natural, or cultural resources to be significantly disturbed or lost. Although the general concept of carrying capacity is relatively easy to comprehend, determining actual numbers is extremely difficult because of a wide variety of factors, variables, and unknowns.

The sport of off-highway-vehicle recreation is quite complex and varied. Different models of vehicles are made for different types of use. Depending on the skill of operators, the size of vehicles, the desire of users to push their vehicle and themselves to the limit, and the concern of operators for the environment, allowable use intensity would differ greatly among the various forms of OHV recreation.

Hillclimbs that require steep topography are subject to more detrimental environmental impacts than tracks that are laid out on relatively flat surfaces. Spectators watching riders create less impact than riders, but spectators of large competitive events, such as hillclimbs, motocross, and scrambles, may have a significant impact on the land.

Because of the difficulty of estimating the actual number of users an area can support, management guidelines for OHV use and intensity in the unit have been established around the concept of three different OHV land use zones: Open Use; Trail Use; and Closed. These zones were established primarily because some areas in the unit are more sensitive to OHV activity than others. As such, different levels of management will be needed to comply with existing environmental requirements, and to ensure long-term use of the unit for OHV recreation.

Principal factors used to establish OHV use zones include soil stability, the sensitivity of important plant and animal life, the significance of archeological sites, and the manageability of actual field boundaries of different zones. Geographical relationships of unit boundaries were also considered with respect to the ability to confine excessive erosion and sedimentation in the SVRA.

The OHV use zones are shown in Figure 6. Included with each zone designation in the figure is a letter subscript that denotes the principal constraint affecting OHV use.

The following describes the allowable OHV use in each zone.

#### Open Use Zone

This zone includes much of the land on which moderate and heavy OHV use has historically occurred, and additional lands that have a relatively low sensitivity to OHV use. This zone includes about 330 hectares (815 acres), or 53 percent of the total area in the SVRA.

Policy: Vehicle use may be allowed anywhere in this open use zone. Competitive events and activities sponsored by large, organized groups may be permitted in this zone, on approval by the department.

#### Trails Use Zone

Lands in the Trail Use Zone are highly to moderately sensitive to OHV use. This zone includes about 255 hectares (630 acres), or 41 percent of the total area in the SVRA.



Policy: The Trail Use Zone shall be managed primarily for OHV trail riding. Vehicle use shall be permitted only on approved or designated open trails and roads. Open, unrestricted riding shall not be allowed because of the high cost and difficulty of land management, and the sensitive resource values.

Specific areas in the Trails Use Zone may be designated for hillclimbs, motocross, and other high-intensity activities, after a watershed rehabilitation analysis has been made and rehabilitation is determined feasible.

#### Closed Zone

Lands in this zone include: 1) areas where control of accelerated runoff and sediment within the unit boundaries is infeasible, and 2) areas that are potentially dangerous for OHV use. The Closed Zone includes about 39 hectares (95 acres), or 6 percent of the total area in the SVRA.

Policy: No unauthorized vehicle use shall be permitted in this zone.

## LAND USE AND FACILITIES ELEMENT

The Land Use and Facilities Element is a comprehensive, long-range master plan for development of off-highway-vehicle recreation at Carnegie State Vehicular Recreation Area. This element is a narrative and graphic description of the unit as it existed at the time of state purchase, coupled with plans and goals for future development.

The element is the result of a planning effort that gathered information from many sources. The major factors considered were past use of the property, resource data, and information developed from an extensive public involvement program. Public involvement consisted of several open public meetings in which staff recorded comments from the audience, and questionnaires were filled out. Also, many questionnaires were mailed to the public.

The plan also suggests an outline for implementation. It is proposed that the plan be realized through a logical sequence of phased development.

The future demand for off-highway-vehicle recreation can be influenced by several rapidly changing factors. It is important that before any changes are made in the level of facilities, a new assessment of demand be made.

### Land Use Analysis

#### Past Use

The most common use of Carnegie and much of the surrounding area has been grazing. Historically, a brick manufacturing plant existed on the site at the turn of the century, with the town of Carnegie surrounding it. As mentioned in the Resource Element, the area was used as early as the 1930s and 1940s for off-highway cycle riding. Carnegie became a private cycle park in 1970, and was operated as such for nine years. For some of this time, four-wheel-drive vehicles were allowed to use the park, but this use was discontinued after several deaths occurred as a result of four-wheel vehicles rolling over on steep hills. International motocross events were held in the park from 1973 to 1977. As many as 25,000 people were present for some of these events.

#### Special Use

Modified midget racing is a special use which existed on the site when the unit was purchased by the state. The racing season extends from May through September with races held each Saturday evening. Past use of the site by modified midget race cars has not caused any known conflict with OHV users. During the Carnegie public meetings, many OHV users spoke in favor of keeping the modified midget race track, even though this use is not part of the department's OHV program. The plan proposes that this use be allowed to continue on a year-to-year basis, as long as the following conditions are met: (1) that the race track facility be open to the general public; (2) that serious conflict does not occur between modified midget car racing and OHV use; (3) that ample water is available to serve the modified midget car racing program, in addition to providing for normal water demand for the rest of the unit.

#### Existing Conditions

After nine years of private operation as a cycle park, the state purchased the facility in 1979. It has been open under state management since January 1980.

The park is divided into two distinct land forms; the steep hills of the coast range and the Corral Hollow flood plain along Corral Hollow Road. The hills are so steep that any support development is restricted to the flood plain. Carnegie is best known for its hills, and the north-facing hills along the hollow have been used extensively for hill climbing. There is a network of trails through the hills and canyons which are the result of the years of use as a private park. Several main trails lead to the rear of the unit. These trails can be travelled by four-wheel drive vehicles for maintenance and emergency purposes.

Considering the amount of past use, erosion is not excessive; however, there are several isolated locations where erosion channels have developed in the unit. The largest channel occurs in what has come to be known as Dead Cow Canyon. It is a steep, v-shaped canyon; the erosion channel is 25 to 30 feet deep and 10 to 15 feet wide. The Soil Conservation Service soil descriptions identify the soils in Zone 1 (the open riding zone) as moderately erosive, while the Zone 2 soils (trails only zone) are described as highly erodible. Most riding has historically taken place on Zone 1, which has not experienced serious erosion. Consequently, the project reflects reasonable use intensity for this area.

Improvements on the site when purchased by the state included a 24' x 60' mobile home, an office trailer, a concessions trailer, four water wells, and perimeter fencing. In addition, located on the west side of the unit is a modified midget race track, with lighting and a small grandstand.

### Regional Land Use

Lake Del Valle State Recreation Area is 10 miles to the west, and Bethany Reservoir State Recreation Area is 11 miles to the north. Bethany is at the beginning of the California Aqueduct as it flows south from the Delta. The surrounding coastal hills are characterized by very rugged terrain. The major use of the land is grazing cattle. Productivity, however, is very low, because 30 acres of land are required to support one cow. Carnegie is bordered on the south by a Stanford Research Institute explosive test site. Across Corral Hollow Road to the north is another test facility known as Site 300, operated by the Lawrence Livermore Laboratory. Site 300 does research and testing for explosives, some of which involves radio-active material. The remainder of the surrounding land is in large ranches, except for a few small residential parcels to the west in Alameda County.

### Land Use and Facilities Plans

#### Plan Objectives

Before the time Carnegie was privately operated, it had been informally used for off-highway-motorcycle recreation. The private operation was carried on with a minimum of facilities and equipment. The terrain itself supplies the necessary ingredients for challenging trail riding and motocross and hillclimbing recreation. Major events in these sports were held at the facility during the mid-1970s. In public meetings, users have asked for a minimum of developed facilities. The opportunities for development are limited to the stream-related flat areas, due to the extremely steep terrain found in most of the unit.

Certain facilities will be required, however, in order to meet user needs, to provide proper resource management, and for health and safety reasons. The purpose of this element is to establish a land use and facilities base that will guide the future development of the unit. This element proposes that OHV use be expanded by increasing riding opportunities and by providing support facilities. Improved soil management will insure the long-term usability of the unit.

### Proposed Land Uses

Many of the basic land uses established during operation as a private cycle park will continue under this General Plan. The plan proposes the following land uses for Carnegie: the hills fronting on Corral Hollow be designated for hillclimbing and open riding. The southern portion of the unit will provide riding on trails only; the Corral Hollow stream zone will offer track and event areas, day-use parking, sanitary facilities, camping, and operations support facilities. Other lands in the unit are cultural sites such as the Carnegie Brick and Pottery Company, utility easements, and road easements.

In making these land-use designations, the state is guided by its commitment to properly manage resource values and to provide a service to the public.

- a. Land Use Designations: Land use will be managed by "use zones," shown on the Proposed Land Use Intensity Map. These zones are described in the Resource Element. Resource information from these zones has been used to determine land uses and the intensity of uses.

Zone 1 (Open) -- 815 acres -- This zone includes the hills fronting on Corral Hollow and the flood plain. The soils of these hills will withstand intensive use; therefore, open, unrestricted riding and hill climbing will be allowed. Use of the stream zone will include circulation, beginners' riding, day use, camping, competition, special events, and operations. Careful consideration will be given to facilities placement in the flood plain due to potential inundation, as well as sediment and debris movement downstream.

Although the zone designated for open riding has a soil type that has historically proven to be relatively stable under OHV use, it is expected that areas of accelerated erosion may occur. Therefore, soil movement will be monitored, and locations showing accelerated soil movement will receive mitigation measures and potential temporary closure until they can be rehabilitated.

Zone 2 (Trails Only) -- 630 acres -- This zone covers the southern portion of the unit. The soils of this zone are more fragile and thinner than those of Zone 1. Here, riding is restricted to trails; however, there are many miles of challenging trail, and more are envisioned. This zone contains the higher elevations of the unit, and several steep canyons.

Zone 3 (Closed) -- 95 acres -- This zone is closed to OHV use, and the plan proposes that the zone remain closed. The reasons for this closure classification are watershed slopes in which sediment cannot be contained onsite and sensitive resource sites, such as the lime kiln and several caves, identified as hazards.

- b. Circulation: The unit has a 2.6-mile frontage on Corral Hollow Road. The main entrance will continue at its present location in about the middle of the unit, off Corral Hollow Road. The Stanford Research Institute has a gate at the east end of the SVRA that allows access to that facility just beyond the southern border of the unit. There is also an additional gate at the west end of the unit. These gates have served as entrances and exits for special events in the past. This plan intends to continue these established circulation patterns. Also, these gates have a value as emergency access for ambulances on a busy day, or for rapid exiting of users in case of emergency.

The main circulation artery in the unit runs east-west in the Corral Hollow stream zone, and is known as Earle Williams Road (Williams was an early resident and historian in the town of Carnegie). User facilities will be accessible by this road, and the plan recommends that street-licensed vehicles only be allowed use of this road. Parallel to it, but closer to the hills, a main artery for OHV travel will be developed so dirt bike riders can move from their haul vehicles to selected trails, a practice track, the hillclimb, or other use area, without crossing Earle Williams Road.

As a result of 9 years of OHV use on the site, a very extensive trail system exists in the Zone 2 steep terrain area. There are several main trails that extend to the southern border of the SVRA. These main trails are adequate for service vehicles and emergency four-wheel vehicles. Many trails and riding areas may be reached from these main trails. It would be highly desirable to connect these main trails along the south border, for better circulation and for emergency needs. The north-south canyons at the south border of the unit have extremely steep walls, making it impractical to build four-wheel-drive trails paralleling the boundary. However, a possible solution is discussed in the section on proposed acquisition (page 39).

The Resource Element identifies soils in the southern half of the unit as being more vulnerable to erosion than the hills along Corral Hollow. The Resource Element, therefore, recommends that riding in this area, labled on the Land Use Plan as Zone 2, be restricted to trails. The idea is not to reduce the miles of trail or riding pleasure, but to remove trails with excessive maintenance problems, and to add new trails where they can be economically and physically maintained, and can serve a need.

- c. Utilities: The City and County of San Francisco have an easement for a high-voltage power line running through the project in an east-west line, in the middle of the Corral Hollow stream zone. The electric lines are mounted on high metal towers. The power company has the right of access to service these lines. As a safety consideration, riding will be discouraged around tower bases.

The Stanford Research Institute also has an easement through the unit, for a road access across the east side of the unit to the explosives test site south of the SVRA.

## Proposed Facilities

The concerns of the users expressed throughout the public involvement portion of the planning process have been consistent with requests made during planning efforts for other state vehicular recreation areas. Users want a minimum of development. The physical constraints of the site also suggest that site development be minimal. This plan will establish guidelines for minimum development that address the public's use of the facility, and the maintenance and operation facilities necessary to support that development. This, in turn, will be done within the guidelines and policies of the resource element.

- a. Visitor Facilities: In public meetings and questionnaires distributed by mail and at the unit, users have expressed their desires regarding the facilities they would like provided at Carnegie. The following are facilities identified as desirable by the users, or facilities identified as being important to the SVRA by the planning team:

### Day Use

- First aid facilities
- Multi-purpose room
- Parking/staging area
- Restrooms
- Visitor orientation facilities
- Turf area
- Beginners' riding area
- Tracks for special events
- Facilities for four-wheel vehicles
- Trails

### Camping

- Camping area
- Campfire center

First Aid: Dirt bike riding in rough terrain has a high risk factor. The first aid station should be readily accessible and in a central location, and should be staffed during operation hours. The SVRA office would seem to be the best location to meet the above criteria.

The staff are well trained and equipped to respond quickly to accident victims, to supply first-aid treatment, and to evacuate the injured from steep terrain. Persons with injuries requiring hospitalization will normally be taken to Tracy, about 12 miles away.

Multi-Purpose Room: This facility should be included as part of the SVRA office building. It should be a moderate-sized room, designed for a variety of programs. The prime concern is for a space to present user safety programs. The methods of instruction are to include audio-visual techniques, classroom instruction, and workshops interpreting safe riding techniques and related topics. Exhibits and panels could supplement these programs by interpreting safety equipment, pertinent rules and regulations, and potential health problems such as heat, exhaustion, and sunstroke.

Parking and Staging: The plan recommends that the parking area for day use be in a designated area, on gravel. The new staging areas will have trees planted for shade. Scattered oak and cottonwood trees have been used in the past as places to park, especially during hot weather. The plan recommends that users be allowed to park under the scattered shade trees during periods of light use, until adequate shade is developed in the designated parking areas.

The special event areas at the east and west ends of the unit will have designated areas for informal parking. These areas can also serve as overflow parking, or as camping areas on weekends of heavy use.

Restrooms: The location of facilities in a stream zone is of major concern in designing and locating facilities at Carnegie. Restroom buildings will be designed to withstand flood waters. The buildings will be located on the highest ground possible next to the Corral Hollow Road, to minimize closures due to flooding.

The building design will be kept simple, and will not include showers. The buildings will be of the vault pump-out type for removal of sewage, to avoid leaching sewage in the floodplain. Sanitary needs for greater than normal use such as special events will be served by portable chemical toilets.

Visitor Orientation Center: This facility will be an open-shade structure with information panels. It is more thoroughly described in the interpretive element, page 42.

Turf Area: This will be a relatively small area, intended to provide a shaded resting space. It will also be located to serve as a viewing area for watching hillclimbing activities.

Beginners' Riding Area: This is an area for those just beginning to get acquainted with dirt bike skills. It is not limited to children; many adults who have not ridden before develop a desire to try this rigorous sport. It is intended as a protected, supervised area that will allow novice riders an opportunity to learn and practice riding skills in a more controlled environment. The facility will be close to the central day-use area. It will be fenced, and "hot dogging" and fast riding will not be allowed.

Tracks for Special Events: Motocross races are the most popular events held at Carnegie. During the spring months, when dirt riding is best, there is a club-sponsored motocross race almost every weekend. The plan recommends that the track for special motocross events be at the east end of the unit. This use area can be closed off from the rest of the unit, and access can be controlled through a separate gate. The track will be designed with a low point in the center, to catch sediment. This track, and other catchment basins in the hollow, must have sediment removed regularly to allow for their continued useful performance.

Several practice motocross and flat tracks exist throughout the unit. This use will continue, and the tracks will be refurbished and maintained as needed to control erosion problems and accommodate groups.

## Facilities for Four-Wheel Vehicles

Special club events may be held at the west end of the facility, for either motorcycle or four-wheeled vehicles. Carnegie is not large enough for a day-long trail ride for four-wheelers. The previous owner did allow four-wheeled use of the area at one time. That use was largely hillclimbing. Several fatal accidents occurred; as a result, the four-wheel use was discontinued. Users generally agree that four-wheel and two-wheel vehicle uses do not mix well. The acquisition effort to acquire land for four-wheel vehicles at Carnegie has been stopped by property owners unwilling to sell. The question that remains is whether or not some level of four-wheel use can be provided. The alternatives questionnaire included a question that asked whether a permanent area should be set aside at Carnegie for four-wheel vehicles. The results showed a slight edge for a permanent space for four-wheel vehicles. However, when discussed at the alternatives public meeting, users agreed that an acceptable solution was an event area that could be used for a weekend by a group, on a reservation basis.

The events area will offer informal camping with portable restrooms. Activities available to users of this area include a trail ride to the highest elevation in the unit, a cross-country race, a gymkhana, and other group outing activities.

Carnegie is primarily used by off-highway motorcycles due to limited size and steep terrain. However, the plan allows weekend use by 4-wheel vehicles. The plan also recognizes the special needs of other OHVs, such as Honda Odysseys, dune buggies, and ATCs.

It is dangerous to mix these types of OHVs with off-highway motorcycles in the steep terrain areas. Therefore, the plan proposes that these other OHVs be accommodated in the Corral Hollow floodplain and related areas of the unit.

## Trails

Carnegie is known for its steep hills. The many Carnegie "regulars" like the challenge of riding trails in the very steep terrain this unit offers. The trails of the unit were not planned, but were developed by the users as they rode.

The hills are divided into use zones, as outlined in the Land Use Plan. The hills fronting on Corral Hollow are shown on the plan as open riding. This means that riding is not restricted to trails, and riders can climb any hill they feel capable of. Riding in the southern one-third of the unit is restricted to trails only.

The trails will be considered a facility for users, and will be managed to serve users, realizing that riders want a trail with plenty of challenge.

The plan will offer a variety of opportunities for trail riders. The plan recognizes that not all riders come to the unit with the same abilities, and that their bikes are not capable of the same performance levels. The plan proposes that trails be identified according to levels of riding ability. The marking system proposed is similar to that used for the levels of difficulty on ski slopes. The same symbols used for ski slopes will be used at Carnegie and other SVRAs.



Many of the existing trails change rapidly from novice to expert-level riding requirements. The plan proposes that the unit should develop a trails plan that identifies complete loop trails for the various riding expertise levels. This will require a considerable amount of new trail development. The intent is to develop an organized trail circulation system that offers each of the three riding expertise levels an interesting and challenging trail riding experience. A trail riders' guide, identifying trails and recommended riding expertise, will be printed to hand out at the entrance.

- b. Operational Needs: The goal of the operations staff for an SVRA is to provide the highest-quality recreation experiences possible within the operating guidelines set forth for such units. Necessary to the support of such a goal are proper facilities and equipment. The following are the facilities important to proper operation of the unit, with a brief description of each:

Office and First Aid Center: The office will provide both public contact space and private work space for the unit manager and staff. This facility will be a place for extended public contact that should not be handled at the kiosk. Because it is central and staffed during operating hours, it is the logical place for the first aid center and multi-purpose meeting room.

Service Yard: This facility will include a fenced compound for storage of equipment, vehicles, and materials necessary for day-to-day operation of the unit. It will include a maintenance and shop building, with several bays for maintenance of vehicles and equipment. The yard will be close to the office in the entrance complex. It will have a separate entrance from the highway, for access when there is congestion at the main entrance. Due to its closeness to the entrance and main highway, it will be screened with vegetation that will reduce visual impacts from the highway and the rest of the unit.

Residence Area: The unit includes a small triangle of land on the north side of Corral Hollow Road. Three residence trailer pads are now located on this parcel. They permit surveillance of the facilities, and protection for each other during periods of minimal use.

- c. Design Concepts: Users attending Carnegie public meetings have consistently asked for minimum development. They do not want frivolous or fancy facilities. With this understanding of the users' desires, structures and buildings should be kept to a minimum.

Paving will be minimal in the unit. Only the entrance road and administrative complex will have asphalt pavement.

Circulation for street-licensed vehicles and off-highway motorcycles will be separate, for safety reasons. The street vehicle main circulation artery will be adjacent to Corral Hollow Road. It will allow street vehicles to quickly and safely move to parking or staging areas. Once street vehicles are parked, bikes can be unloaded, and can be ridden to a main circulation artery on the south side of the Corral Hollow flood plain. This will become the main circulation artery up and down the flood plain for dirt bikes.

The only usable space for development of facilities at Carnegie is in the stream zone. This poses two problems: 1) potential flood damage to buildings and facilities; and, 2) potential movement downstream of large quantities of sediment and debris. Potential flood damage can be minimized by placing facilities on higher ground adjacent to Corral Hollow Road, in the wider area of the floodplain. This, while not preventing flooding, will place the improvements where the water velocity will do the least damage to the facility and prevent additional debris moving downstream. Improvements will be designed to be easily put back into service after flooding. Where feasible, berms will be constructed to deflect water from buildings. Improvements in the floodplain will be kept to the minimum necessary to operate the unit.

- d. Concessions: Under private operation, the unit had a small parts concession, which has continued under state operation. There is a demand for it only on weekends. The type of merchandise it supplies is brake and clutch handles, as well as other small parts that are often damaged while riding. During the planning process, users asked for food and beverage service in addition to the parts. The plan recommends a weekend-operated concession offering parts, food, and beverages.

### Proposed Acquisition

#### A Four-Wheel-Vehicle Unit

Four-wheel-vehicle groups were well represented at the first series of public meetings for Carnegie. Their request was for a place to ride, and it was obvious that the existing Carnegie facility could not meet their needs. The department recognized this need, and initiated a proposal to buy approximately 2,000 acres to the east of the existing unit for the use of four-wheel vehicles.

At the first notice of the state's interest in their property, landowners in the proposed acquisition notified their legislators and the Department of Parks and Recreation of their desire not to sell. Faced with resistance by the property owners and other concerned parties, the Department of Parks and Recreation determined that efforts to acquire the land would cease.

The location of a substitute parcel will be difficult due to a number of factors, such as finding willing property owners and willing neighbors, overcoming environmental constraints, and locating desirable off-highway-vehicle use areas. However, department efforts to find a suitable four-wheel OHV site will continue.

#### Carnegie to Frank Raines Trail

During the early stages of the Carnegie planning process, it was also suggested that users would like to have a trail between Frank Raines County Off-Highway-Vehicle Park in Stanislaus County and Carnegie State Vehicular Recreation Area. San Joaquin County park staff mentioned the idea before the county parks board, and received a mixed reaction to the idea.

The potential recreation value of the trail itself is good; however, it is expected that local ranchers would be very reluctant to give easements over their property for such a trail. The concept that may have greatest potential for acceptance is a trail that could be used on a reservation basis only by clubs who would be responsible for their own policing and cleanup.

The plan recommends that the State Department of Parks and Recreation's Office of Off-Highway Motor Vehicle Recreation seek cooperation from San Joaquin and Stanislaus Counties in order to further investigate the potential of such an OHV trail.

#### Acquisition for Improved Circulation

Most trunk trails or four-wheel drive emergency trails dead-end in canyons or on ridge tops at the back of the unit. The canyons generally run south of Corral Hollow, which runs from east to west in Carnegie. The slopes are very steep in these canyons, making it impossible to tie four-wheel-drive trails together along the rear property line. This is a problem for general user circulation, and especially for emergency rescue. If a ranger goes on a rescue call in a four-wheel-drive vehicle and gets to the back property line, then discovers the accident victim is one canyon over, the ranger has to return to Corral Hollow to reach a trail to the accident victim. This problem can be solved by acquisition of a ridge adjacent to the unit that would tie several main ridgetop trails together. It is recommended that efforts to acquire sufficient land to accommodate this cross-connecting trail be pursued by the department.

The only usable space for development of facilities at Carnegie is in the stream zone. This poses two problems: 1) potential flood damage to buildings and facilities; and, 2) potential movement downstream of large quantities of sediment and debris. Potential flood damage can be minimized by placing facilities on higher ground adjacent to Corral Hollow Road, in the wider area of the floodplain. This, while not preventing flooding, will place the improvements where the water velocity will do the least damage to the facility and prevent additional debris moving downstream. Improvements will be designed to be easily put back into service after flooding. Where feasible, berms will be constructed to deflect water from buildings. Improvements in the floodplain will be kept to the minimum necessary to operate the unit.

- d. Concessions: Under private operation, the unit had a small parts concession, which has continued under state operation. There is a demand for it only on weekends. The type of merchandise it supplies is brake and clutch handles, as well as other small parts that are often damaged while riding. During the planning process, users asked for food and beverage service in addition to the parts. The plan recommends a weekend-operated concession offering parts, food, and beverages.

### Proposed Acquisition

#### A Four-Wheel-Vehicle Unit

Four-wheel-vehicle groups were well represented at the first series of public meetings for Carnegie. Their request was for a place to ride, and it was obvious that the existing Carnegie facility could not meet their needs. The department recognized this need, and initiated a proposal to buy approximately 2,000 acres to the east of the existing unit for the use of four-wheel vehicles.

At the first notice of the state's interest in their property, landowners in the proposed acquisition notified their legislators and the Department of Parks and Recreation of their desire not to sell. Faced with resistance by the property owners and other concerned parties, the Department of Parks and Recreation determined that efforts to acquire the land would cease.

The location of a substitute parcel will be difficult due to a number of factors, such as finding willing property owners and willing neighbors, overcoming environmental constraints, and locating desirable off-highway-vehicle use areas. However, department efforts to find a suitable four-wheel OHV site will continue.

#### Carnegie to Frank Raines Trail

During the early stages of the Carnegie planning process, it was also suggested that users would like to have a trail between Frank Raines County Off-Highway-Vehicle Park in Stanislaus County and Carnegie State Vehicular Recreation Area. San Joaquin County park staff mentioned the idea before the county parks board, and received a mixed reaction to the idea.

The potential recreation value of the trail itself is good; however, it is expected that local ranchers would be very reluctant to give easements over their property for such a trail. The concept that may have greatest potential for acceptance is a trail that could be used on a reservation basis only by clubs who would be responsible for their own policing and cleanup.

## SEQUENCE OF PLAN IMPLEMENTATION

- o Erosion Control -- Catchment Basins
- o Improve Moto-Cross Track for Events
- o Events Area (for 4-wheel use)
  - fencing
  - chemical toilets
- o Entrance -- Administration -- Service Yard
  - kiosk
  - office
  - service yard
  - orientation center
  - trailer sanitation station
- o Main Circulation Routes in Corral Hollow
- o Camping
  - restroom buildings
  - roads
  - spurs
  - tables
  - stoves
- o Day Use
  - parking
  - restroom buildings
  - beginners area
  - turf area
  - tree planting
  - concession
  - picnic facilities
  - improve trail circulation

It is probable that the above-mentioned improvements can be accomplished in one major development project. However, some elements may be accomplished through minor project money before a major development project. Therefore, the above elements are placed in the desired order of implementation.

Since camping does not now exist, it is placed ahead of day use in the order of implementation.

## INTERPRETIVE ELEMENT

Substantial opportunities exist at Carnegie SVRA for interpretation that enhance visitors' recreational experiences. Programs will essentially be designed to improve the riding experiences of enthusiasts, and to contribute to long-term use of the unit as an OHV recreation area. See the Interpretive Prospectus for Carnegie SVRA (on file with the department) for a more detailed discussion of interpretation proposed for the unit.

### Interpretive Themes

#### Primary Theme

1. OHV Recreation and Safety
  - a. Carnegie SVRA: An Orientation
  - b. Safety and Skills Enhancement
  - c. OHVs and the Environment
  - d. OHV Evolution and History

#### Secondary Themes

1. The Rise and Fall of the Carnegie Brick and Pottery Company
2. The Natural Features of Carnegie

### Interpretive Themes Expanded

#### Primary Theme

1. OHV Recreation and Safety

This theme should help visitors realize the recreational potential of Carnegie, while encouraging safe riding practices. Although the presence of risk is one of the attractions of the sport, every reasonable effort should be made to prevent personal injury and loss. The necessity of maintaining a stable physical landscape should be developed within this framework, since OHV recreation may ultimately rely on the capability of the environment to support it. An effort should also be made to promote an understanding of SVRA operation and the value of wise management.

- a. Carnegie SVRA – An Orientation: Maps, displays, and brochures should be developed to orient the visiting public to Carnegie. Information on trails, special event areas, points of interest, and facilities should be readily available. Up-to-date information on hazardous or closed areas and on special events occurring at Carnegie or other OHV areas should also be included.
- b. Safety and Skills Enhancement: A primary interpretive effort should be made to inform recreationists about the substantial safety problems associated with OHVs. A variety of programs should deal with such safety-related topics as safe riding practices, currently available safety equipment, first aid information, applicable rules and regulations, and proper vehicle maintenance. Additional programs and activities should be encouraged that enhance and improve riding skills.

- c. OHVs and the Environment: An interpretive effort should be made to familiarize recreationists with ways to reduce or avoid the potential impact of OHVs on the physical landscape. This must be approached on a positive, supportive manner, demonstrating how it will help insure the long-run productivity of the SVRA, reduce costs, and promote the sport. Low-impact riding techniques should be interpreted and demonstrated. Support for reclamation projects should be encouraged, and management policies that affect OHV activities should be explained.
- d. OHV Evolution and History: The evolution and use of off-highway vehicles should be explored and interpreted. A historical approach could trace the past, present, and projected future use of OHVs, illustrating how they evolved into a popular recreation activity. As part of this approach, the state's involvement should be presented in terms of the OHV Fund and the importance of SVRAs.

### Secondary Themes

#### 1. The Rise and Fall of the Carnegie Brick and Pottery Company

The historical significance of the Carnegie Brick and Pottery Company should be interpreted. The magnitude of the mining and plant operation, as well as the life and times of the people who lived and worked there, should be presented. This effort should include interpretation of the occurrences that led to the eventual downfall of this once prosperous enterprise.

#### 2. The Natural Features of Carnegie

Many natural features in Carnegie SVRA are worthy of interpretation. A description of the various habitats and the associated life forms should be available to visitors. Consideration should be given to how the landscape evolved into its present form, making it suitable for OHV recreation. This theme should contribute to the riding pleasure of enthusiasts, while increasing sensitivity to the surrounding environment.

### Methods and Media

Interpretive methods and media must be as varied as the interests of the people who visit Carnegie. Dedicated enthusiasts, recreational trail bikers, and non-riders each require interpretive efforts suited to their needs.

Programs and activities designed for OHV enthusiasts must take into account that these riders are often highly mobile, and enjoy a sense of independence and self-sufficiency. Thus, interpretive services for this audience should be designed to be informal, self-explanatory, and flexible, in terms of time and location. For example, maps and brochures that can be carried to any part of the SVRA and reviewed as time permits will be more suitable to enthusiasts' needs than other, more formal programs. Furthermore, visitor activities such as demonstrations, workshops, and competitive events should be informal, and should be provided at optimum times between riding activities.

While recreational trail bikers share similar interest with other enthusiasts, enjoyment of the outdoor scene plays a greater role in their activities. This audience is more inclined to spend time exploring aspects of the region's physical and cultural heritage. Self-guided trails, interpretive panels, brochures, and audio-visual presentations dealing with all aspects of the unit would be of interest to this group.

Finally, a selection of interpretive services should be available for non-riders. Friends and family members who do not participate in the sport will have time for more in-depth interpretation of the unit's features. Panels, campfire programs, and publications are among some of the more appropriate means of interpreting for these visitors. The historic townsite, in particular, should be interpreted for those who have an interest in this landmark. The use of old photographs of the former brick factory is recommended as a primary way to interpret the scattered remains of this enterprise.

Although a variety of methods and media will be necessary at Carnegie, direct involvement and participation by unit personnel will be effective for all audiences, due to the personal contact. Whenever possible, interpretive services should be organized around personal appeal, in order to maintain an informal atmosphere.

### Interpretive Services

#### Visitor Activities

Personal services, tailored to meet visitor needs and use, should play an important role at Carnegie SVRA. These services should be designed to promote OHV use and safety, while contributing to sustained operation of the area. Staff-visitor contacts during routine patrols will provide the most common opportunities for interpretation. It is during these brief but frequent contacts that information about OHV activities, operation of the SVRA, and the natural and cultural values of Carnegie can be shared.

Visitor activities centered around demonstrations and workshops are also well suited for this unit. Unit personnel and volunteers could work together to provide a variety of programs dealing with such subjects as the latest in OHV design and equipment, first aid, and riding techniques. Similarly, specialized problems, such as dismounting bikes on hillclimbs or retrieving stalled vehicles on steep slopes, could be dealt with in this manner. A selection of programs should be geared specifically for youngsters. For example, a youth certification program similar to that at Ocotillo Wells SVRA would be appropriate and well received. Junior Ranger, Litter-Gitter, and recycling programs can also prove successful for this age group. Many of these programs could be presented to organized groups and other interested audiences in surrounding communities by unit staff and/or qualified volunteers.

Other personal services that initiate participation, good riding techniques, and an understanding of the natural processes responsible for Carnegie's recreational potential should be encouraged. For instance, competitive events, orienteering courses, and similar activities are popular, and enhance riding skills. Visitors and other well-trained volunteers could help with these events; eventually, they could be asked to participate in landscape reclamation projects. If overnight facilities become available, informal campfire programs will present another opportunity for visitor activities in which a broad range of topics can be discussed with riders and non-riders alike.

#### Interpretive Facilities

Interpretive facilities will play an important role at Carnegie, and should be designed to catch and hold the interest of both OHV enthusiasts and non-riders. These should be placed in a limited number of locales, taking into consideration traffic flow and safety.



An interpretive structure, consisting of a series of panels, should be located near the entrance of the unit. This should serve as an orientation center, introducing visitors to the recreational potential of the SVRA. A large relief map oriented to the landscape would be a valuable reference here. Panels should deal with topics involving OHVs, environmental awareness, safety, and SVRA policies. Changes in displays should occur periodically; it is important that interpretation be dynamic and appealing to repeat visitors. A bulletin board should be located nearby for messages and announcements.

Because safety is a primary operational concern, a moderate-sized multi-purpose room is needed for a variety of programs. This facility should be included in the ranger station complex. Audio-visual presentations, classroom instruction, and workshops interpreting safe riding techniques and related topics could occur here. Exhibits and panels could supplement these programs by interpreting safety equipment, pertinent rules and regulations, and potential health problems such as heat exhaustion and sunstroke.

Another interpretive facility should be established near the townsite in the east portion of the unit. Low-profile interpretive panels should relate the significance of historic landmark. An additional panel, located in the canyon south of the townsite, should interpret the role the existing top-loading kiln played in construction of the brick and pottery factory, and should describe its operation.

A self-guided OHV trail leading from the Corral Hollow creek bed into the upland areas would provide another valuable interpretive service. The trail should be designed to accommodate all riders from beginner to expert, without interfering with other recreational activities. If camping is permitted, a campfire center should be constructed to provide a forum for audio-visual and other programs.

In addition to these permanent facilities, mobile display facilities will be provided, to be placed in locations where temporary hazards exist or landscape repair work is occurring, to interpret what is happening there, and to detour riders around the area.

Addition of the administrative complex early in implementation of the plan will be the most effective step for easier operation of the unit. Visitors will be admitted with fewer delays, and a new office will provide more effective space for staff work, visitor contact, and first-aid facilities. An orientation center near the entrance will provide interpretive panels with information about Carnegie, stressing, among other things, rider safety. The intent of the orientation facility is to help users enjoy their visits more, while reducing the operation workload for the staff. A well-equipped service yard will be located near the office as part of the administration complex. A number of pieces of special equipment needed to maintain trails, tracks, and hillclimbs will be housed in this centrally-located yard.

Maintenance of tracks for fun, practice, and events will be a high-priority item in the future operation plan for Carnegie. Maintaining several tracks will tend to spread users out in the unit. By maintaining several tracks if one track is closed for an event or for maintenance purposes, several other tracks will be open for use. Another advantage of encouraging the use of tracks will be a reduced number of serious accidents.

One of the major problems caused by off-highway vehicles is soil erosion. Once protective vegetation is gone, soil movement will continue, caused by wind, water, and more vehicles. Usually, serious erosion on trails occurs only on a very small portion of any given trail. Erosion is a problem that most state vehicular recreation areas have to some degree. A cooperative effort between SVRA units will help in developing new approaches to deal with this problem.

The volunteer program is now being used for patrol and emergency evacuation. This program should play an increasingly important role in easing the workload for the operations staff in the future. The volunteer program will also help in promoting rider safety and better public relations with user groups.

By the time the plan is fully implemented, an information base will exist as a result of resource data collection and other recorded statistics and records. This information will provide a good base from which continued daily operation of the unit can be planned.

## OPERATIONS ELEMENT

The state's operation of the unit began in January 1980. This effort was an interim operation, which started with minimal staffing from nearby units, with very little equipment. At the beginning, taking care of visitor services was the limit of the operations effort.

Operating a state vehicular recreation area is very different from the operation of most other state park units. Off-highway-vehicle users prefer only a minimum of facilities, desiring the space to participate in their sport. Secondly, they do not want highly maintained trails. The users of off-highway vehicles want some of the obstacles left in the trails, to enhance the challenge of riding.

With these thoughts in mind, it is the goal of the Operations Element of this Carnegie General Plan to maintain the unit so as to enhance off-highway-vehicle use, both now and in the future.

### Initial Operation

The unit's initial operation will include the following tasks: Erosion control and resource protection, monitoring resource information, identifying and signing hazards, visitor services, emergency first aid and readiness, fire control, and maintenance of equipment and facilities.

#### Erosion Control

The unit staff is now in the process of identifying erosion problem areas during patrol riding. In the present stage of operation of the unit, the staff does not have adequate equipment or knowledge of proven erosion control practices. This means that for the short term, the unit staff will be limited in its ability to deal with erosion problems. However, through staff efforts, more effective erosion control measures will be developed. This is an area where volunteer workers can be effectively used.

#### Monitoring Resource Information

As identified in the Resource Element, monitoring resource information will be important for developing a future erosion control program. The following are some of the types of information to be recorded: rainfall, temperature and humidity, sediment and load concentrations in Corral Hollow Creek, and soil movement on trails.

There is an immediate need to budget for a resource management position to be available to the unit. This staff position is needed to advise and assist the unit manager in the technical responsibilities of resource management.

#### Hazard Reduction

The Department of Parks and Recreation is concerned for the safety of all visitors to the unit. There is no desire to remove the challenge of riding, but it may be necessary to provide a warning of danger in some areas such as sudden dropoffs, mine shafts, wells, and caves. The Operations Element recommends a program of patrolling known hazards and looking for additional hazards on a scheduled basis. The department will also develop rider's safety information to be presented at the orientation center.

## Visitor Services

All facets of the operations program are important; however, visitor services are of special importance, since service to the public is the main reason for the State Park System's existence. Visitor services will occupy much of the unit's staff time. The type of staff assignments involved are as follows: working in the kiosk entrance station, checking users in, vehicle checks, patrolling roads and trails, providing interpretive programs and activities, and working in an office where users' questions can be answered in person or over the phone.

Another category under visitor services is special events. This will require issuing permits and coordinating with sponsoring clubs. The unit staff will maintain facilities to encourage this use; however, sponsoring clubs will be responsible for cleanup work after events.

## First Aid and Rescue

Off-highway motorcycle riding in steep terrain such as Carnegie has a relatively high incidence of serious injury. For this reason, the unit staff will be well trained in first aid and rescue procedures. A first aid station will be located in the unit office. Some accidents occur in steep canyons; these require emergency rescue procedures. The staff will be well trained to handle these incidents. Much of the unit can be traversed by four-wheel-drive vehicles. However, of concern is emergency vehicle access along the southern boundary. A potential solution is discussed in the Proposed Acquisition section, page 39. Also, if needed, a Highway Patrol helicopter can be summoned, and can arrive at the unit within 30 minutes.

## Fire Control

Carnegie is covered by a network of roads and trails that also serves as a firebreak system. In addition, the unit has one pumper truck, and is located within three miles of a State Department of Forestry fire station which is operational during the fire danger season.

## Maintenance of Equipment and Facilities

The long-term usability of the unit will depend heavily on a good maintenance program. This program should not be highly visible to users. The users' only awareness of an efficiently operating maintenance program should be a lack of problems with facilities, and a clean unit. This phase of operations work during initial operation will be difficult, because of lack of adequate maintenance equipment, facilities, or maintenance personnel to do the work. Good maintenance of facilities is imperative, if the unit is to be well received by the public.

The initial maintenance program includes the following items of work needing maintenance attention: roads and trails, restroom cleaning, vandalism repair, building maintenance, and utilities such as sewage, electrical, and water. In addition to these regular maintenance activities, the initial workload involves installing a modular building for office use (and utilities for this building), and installing a residential trailer pad.

## Future Operation

Daily operation of the unit should become more efficient as the plan is implemented, necessary maintenance equipment purchased, and maintenance positions filled. New methods and ideas should come from experience of operation. All of this should help in developing a better operating plan for the future.

## ENVIRONMENTAL IMPACT ELEMENT

### Summary

Lands in Carnegie State Vehicular Recreation Area have already received more than ten years of heavy off-highway-vehicle use, under both private and state management, with off-highway-motorcycle riding constituting almost all of this use. For this reason, the environmental impacts to be expected from state operation and development of the area as described in the general plan are, on the whole, the same ones already manifest as a result of its history of off-highway-motorcycle use. The major differences in impacts to be expected under future management are the following:

1. Water-borne sediments from OHV-induced soil erosion that are currently carried off-site during storms will be contained behind debris dams built in the unit.
2. On some slopes, where -- due to OHV use -- the loss of soil is high and gullies are forming, the erosion rate will be reduced and stabilized.

### Introduction

Section 5002.2 of the Public Resources Code requires that each state park unit general plan include an environmental impact element, and that this element satisfy the environmental documentation requirements of CEQA (beginning with Sec. 21000 of the Public Resources Code).

### Project Description

Carnegie SVRA is a unit of the State Park System. It was acquired by the state with money from the Off-Highway Vehicle Fund in 1979. It is a unit that is especially suited for motorcycle use because of its steep hills and mostly narrow trails. Some four-wheel areas are being designated in this plan, and on certain weekends, four-wheel-drive vehicles will be able to use the western end of project lands. (Four-wheel-drive enthusiasts prefer larger areas and longer treks.) Hillclimb areas and trail use areas will remain essentially the same as in the past. Some areas will need to be rehabilitated because of accelerated erosion and for safety considerations.

The greatest changes proposed are in the floodplain along Corral Hollow Road. New land uses and facilities include event areas, parking, turf areas, picnic and campground areas, administration and interpretive facilities, restrooms, and other visitor facilities for OHV users and spectators. Resource protection facilities are also proposed, such as check dams to prevent sediment from leaving the site and protective barriers for preserving cultural areas.

Please refer to the following sections of the General Plan for more detailed descriptions of the proposed project:

- o Proposed facilities -- p. 35, Land Use and Facilities Element
- o Initial operations -- p. 47, Operations Element
- o Proposed interpretive program -- p. 42, Interpretive Element
- o Proposed resource management policy -- p. 22, Resource Element

## Description of the Environmental Setting

Unless otherwise referenced, indented portions of the Environmental Setting Section of this Draft Environmental Impact Report are quotes from the Environmental Impact Report for Carnegie Cycle Park, EIR-76-14/76-77, prepared by the San Joaquin County Planning Department in June 1976.\* This document is a matter of public record, and is available for public review at the San Joaquin County Planning Department (lead agency for that project), at 1810 E. Hazelton Avenue, Stockton, California 95205. The portions of that document quoted in this section are hereby incorporated by reference. Information has been reduced to avoid redundancy with other elements.

### Topography

The 1,540-acre Carnegie SVRA site is located in the foothills of the Inner Coast Range. The vicinity is characterized by steep hills, sharp ravines, and an east-west-oriented hollow. The elevations rise sharply from both sides of the Corral Hollow Valley floor.

### Meteorology

See Resource Element, p. 9.

### Air Quality

San Joaquin Valley is an area of frequent thermal inversions that include radiation inversions and subsidence inversions. Radiation inversions occur most often in the fall and winter months, when horizontal winds are lessened and when nights are longer. The process for a radiation inversion is based on nightly loss of heat from the earth's surface, cooling the thin layer of air nearest the surface. As a result, this layer of cool air is sandwiched between the earth and the warmer, higher layers of air. Tule fogs are the result of radiation inversions, combined with a high atmospheric humidity and a temperature below the dew point. These fogs and inversions remain until the sun warms the lower layer of air sufficiently to evaporate the moisture and produce the mixing of air. Subsidence inversions are the result of the compression and heating of a descending layer of upper air. This thermal inversion layer, which usually exists at an altitude of 7,000 or more feet, descends during the summer and fall, creating a canopy at 1,000 to 2,000 feet. Vertical and horizontal air movement is greatly constrained. The heat of the sun is much less effective in dispelling subsidence inversions than radiation inversions.

The unit is located just above the valley. Therefore, thermal inversions that trap pollutants on the valley floor will reach their ceilings at a level near the unit.

The Livermore Valley is an elevated valley between the San Francisco Bay Area and the San Joaquin Valley, west of the SVRA. A 1976 report, Livermore-Amador Valley Planning Unit Plan Amendment Consideration and EIR, states:

In a typical year, there are about 212 cloudless days in the Livermore-Amador Valley. Of these, about 153 occur in the months April through October when conditions of air temperature and inversion conducive to the accumulation of oxidants may develop. According to the Bay Area Air Pollution Control District, the number of days per year with conditions conducive to oxidant accumulation in the Livermore area ranged from 58 to 77 per year in the period 1967 to 1971, with the five-year average being 68 days per year.

The pollution potential of the inland valley is very high. The surrounding elevated terrain, in conjunction with the temperature inversion frequency, makes a closed box of the valley, in which pollutants may quickly reach high levels during periods of low wind speeds. Abundant sunshine and warm temperatures in the summer are ideal conditions for formation of photochemical pollution in the absence of local sources, due to sea breeze transport of contaminants from westward urban areas.

While complex meteorological conditions hinder precise estimates of the relative contributions of local and imported pollutants, it is reasonable to assume that about half, and perhaps as much as three-quarters, of air pollutants in the Livermore Valley are locally generated.

The California Air Resources Board, California Air Quality Data for 1979, shows only 19 days in which Livermore exceeded Federal and State Air Pollution Standards for Oxidant and Ozone Pollution, while the Union Island Station in San Joaquin Valley near Tracy indicated 25 such days. Explanations for the improvement in Livermore in 1979 from previous years may be due to different weather patterns, stricter air pollution controls, less driving because of fuel costs, or all of the above.

### Hydrology

The site is located south of Corral Hollow Road, flanked by steep walls. Corral Hollow Creek, an intermittent stream, meanders through the valley, and runs immediately adjacent in places to one or the other of the walls.

Several water wells are located on or near the project site, but only two are active. One of these wells is artesian, with a flow of 8 to 10 gallons per minute, as measured in early May 1973. The total water resources of the area have not been evaluated; existing supplies are adequate for present and proposed needs.

Rainfall in the area averages about 10 inches per year, though recently, rainfall has been lower than the 10-inch average estimated by the San Joaquin County Department of Public Works. Areas on the valley floor would be subject to inundation during an occurrence of a 50-year flood (3,000 cubic feet per second flow) or an intermediate regional flood (3,800 cubic feet per second flow).

### Geology

See Resource Element, page 10.

### Seismicity

See Resource Element, page 11.

### Soils

See Resource Element, page 12.

### Biotic Communities

See Resource Element, page 14.

## Noise Conditions

The single most distinguishing factor of an area where off-highway motorcycles are run is noise. The following information, from the proposed San Joaquin County Council of Governments Noise Element, provides some background to the discussion of the noise generated at Carnegie Cycle Park.

Sound is a wavelike vibration, transmitted by air. Each soundwave produces a minute pressure compression and expansion. The loudness of the sound depends on the pressure its soundwaves exert. The more pressure, the louder the sound. Sound pressure levels are measured in decibels (dB), calculated on a logarithmic basis, similar to the Richter Scale for earthquakes.

The ear does not hear all frequencies equally well. For instance, the human ear does not perceive low-frequency sounds to be as loud as higher-frequency sounds. An "A" weight was developed to correspond more closely to how people really hear sound for the decibel scale. The weighted decibel scale is denoted as "dBA".

The sound of a single motorcycle at 50 feet ranges between 80-105 dBA. Two identical sounds combined will not double the decibels.

Sound is added on an energy basis, then converted back to decibels. Doubling the sound energy corresponds to a 3 dB increase. Thus, two motorcycles each producing 90 dBA will produce 93 dBA together...

Soundwaves tend to travel outward and away from the sound source. As a soundwave travels, its front spreads out, much like the ripples from a pebble thrown in a pond. Drops in sound level with distance are predictable in the absence of barriers. A sound of 90 decibels at 50 feet is 6 dB less, or 84 dB, @ 100'; 76 dB @ 200'; 72 dB @ 400' and so forth. If there are barriers in the way of the soundwave, some waves are bounced back up, some bend over the barrier, while others make it through the barrier, which reduces loudness.

The project area is surrounded by steep, rolling hills that buffer sound, echo sound, and contain sound. North of the project, there is an atomic testing facility. There are no single-family structures in the vicinity, except for those belonging to either the unit or the atomic testing facility. Current sound levels at Carnegie range between 70 dBA and 120 dBA, depending on the distance from motorcycle concentrations. The present location is isolated from conflicting land uses. The additional ridership will not increase sonic impact to any significant level."

## Social and Land Use Setting

### 1. Land Use Suitability

The area in which Carnegie SVRA is located is characterized by very steep hills and deep ravines. These hills are located in a rain shadow, and receive only 8" to 10" annually. The nearest population centers are Livermore, about 15 miles to the west, and Tracy, nearly the same distance to the northeast. The combination of distance from cities or towns, the poor water supply, and the rugged terrain makes this land unsuitable for many human enterprises.



The agricultural suitability of the land is only for seasonal pasture. Most of the grasses that grow on the hills are low-protein producers of poor forage quality. Because rain is only adequate during the winter months, the pasture is of very little value for much of the year.

## 2. Neighboring Land Uses

Adjacent land use indicates a 14,000-acre ranch and two explosive test sites.

About one mile northeast of Carnegie SVRA and northwest of Corral Hollow Road is the 99.2 acre (40.1 ha) Corral Hollow Ecological Reserve, operated by the California Department of Fish and Game. Its purpose is to preserve key habitat for an array of species of reptiles and amphibians, and to preserve riparian habitat for wildlife species.

Corral Hollow consists of about 30 percent riparian and 70 percent upland-grassland vegetation. The riparian portion of the reserve is characterized by cattails, willows, and cottonwoods. In the upland area are grass-covered slopes, with occasional small scrubby sages and other low-growing shrubs.

The site is characterized by many reptilian and amphibian species. This area is considered by many naturalists to be unique in this respect. Many other wildlife species are found here. The rare San Joaquin kit fox is known to be in the general vicinity, and very likely uses the area intermittently.

### Access

Carnegie SVRA is within a one to two-hour travel time zone of the San Francisco Bay Metropolitan Area, the Stockton Metropolitan Area, and the Sacramento Metropolitan Area. There are no other existing organized public or private off-highway-vehicle facilities of this size within a one to two-hour travel time zone from San Francisco. The next closest major vehicular recreation area is Hollister Hills State Vehicular Recreation Area, in San Benito County.

Access into the area is via the paved, two-lane Corral Hollow Road, which runs east to west along the bottom of the Corral Hollow Creek Valley. Tracy lies about 12 miles to the northeast along the road, and Livermore is less than 15 miles to the northwest. The Alameda County portion of the road is known as Tesla Road. Vehicles arriving via Tesla Road must use Livermore city streets. Traffic volume could become heavy on special days when events are held.

### Environmental Impacts

An environmental impact report was prepared by the department for acquisition of Carnegie SVRA in 1979. Parts of the unit were being heavily affected by OHVs at the time the land was being acquired. The acquisition EIR described the impacts OHVs had inflicted on the area's environment to that date, and on that basis, made predictions about the impacts it would experience under management as a state vehicular recreation area. To avoid repetition, then, this Environmental Impact Element of the Carnegie General Plan focuses mainly on impacts expected from implementation of the proposals made in the General Plan.

For the purposes of this element, it will be assumed that the department will have sufficient equipment, expertise, staff, and operating funds to carry out the General Plan's recommendations, especially the resource protection policies stated in the resource element.

## Geology and Soils

As noted, soils in Carnegie SVRA are composed of various types, some of which are rich in clay. This site is also an area of low rainfall. These two factors lessen the rate of erosion. The Soil Conservation Service has said that the suitability of the land for motorcycle use is as good as any in San Joaquin County. Nevertheless, accelerated soil erosion does exist at Carnegie SVRA. There are very steep slopes used for hillclimbs. Mechanical erosion caused by the wheels loosens soil and kicks it downhill, making it more susceptible to wind and water erosion. Soil erosion caused by OHVs will occur on the designated trails and hillclimbs, and the track areas. Soil will be disturbed due to construction of proposed facilities discussed in the Land Use and Facilities Element.

## Hydrology and Water Quality

The development site has low rainfall, moderate to high runoff, some potential for flooding, and is an area of substantial aquifer recharge. Intensive OHV use adversely affects soil moisture, water quality, and recharging of the local water table. OHV associated compaction intensifies runoff, which increases erosion and ultimately increases siltation and sedimentation.

Piping or subsurface erosion occurs in the unit. Poorly consolidated materials erode away, forming tunnels. Eventually, these tunnels collapse, and gullies are formed.

Except for suspended and dissolved sediments carried in storm-swollen streams, the impacts of the proposed project on surface water quality or quantity would be negligible, because normally, there is almost no surface water in the unit.

The impacts of the plan on the area's groundwater supply and quality are unknown. The water needs of the headquarters complex, campground, and day use areas will be supplied from nearby wells.

Impacts are seen on soils, erosion and, in turn, on hydrology, water quality, plants, and animals. OHVs compact soils, which reduces the soils' ability to absorb water, thus increasing runoff and erosion and increasing temperature extremes by closing air spaces in the soil. Disturbance of the soil structure, plant cover, and soil crusts by OHVs leads to increased erosion directly by mechanical abrasion of tires, and indirectly from wind and water.

OHVs mechanically displace or loosen soil particles by abrasion. During periods of rainfall, soil particles are transported downhill principally by gravity and water; during dry weather, they are transported by wind. Preliminary results of studies now being conducted by Department of Parks and Recreation staff suggest that for some soils, the major mode of transport may be actual displacement by tires themselves, and that wind and water simply spread the effects off-site. Trenching caused by abrasion of tires and water on motorcycle hillclimb trails commonly ranges from a few tenths of an inch to one foot, but trenching of six feet in soft rocks and two feet in hard rocks has been reported. During periods of significant rainfall, areas of loose soil on moderate to steep slopes are susceptible to accelerated erosion.

All of the effects previously discussed will continue to occur, and may possibly intensify if use increases. Use will continue to compact soils and cause accelerated erosion, but mitigation measures and strict controls may reduce impacts, given sufficient funds and expertise. Such controls are now required by the Public Resources Code; therefore, sufficient funds and expertise will be needed to meet these requirements.

### Domestic Water

Water use is expected to increase because of the turf, landscaping, restrooms, and day use, campgrounds, and administrations buildings and residences.

### Air Quality

Vehicles carrying motorcycles and spectators coming to the facilities will cause air pollution levels, as will the motorcycles themselves.

Ambient dust, resulting from mechanical soil erosion and wind, also contributes to air pollution.

### Local Services

Vehicles traveling to Carnegie SVRA have two routes to get there. One is via Livermore and Tesla Road, and the other is via Corral Hollow Road from Tracy or Interstate 580. On days of heavy use, traffic congestion could result in Livermore and along the two-lane roads getting to the unit.

Minimal effects on local schools, resulting from residences, hospitalization from OHV mishaps, and fire and police agencies, will result from the proposal.

### Vegetation and Wildlife

Damage to vegetation and wildlife is inevitable with continued off-highway-vehicle use of the area. Noise will continue to affect project-associated wildlife, but the impact should be lessened by strict enforcement of laws requiring all off-highway vehicles to have mufflers.

During the long, dry summer season, the highly combustible vegetation in the project vicinity can present extreme brush fire hazards. Use of off-highway vehicles can accentuate this hazard, but enforcement of laws requiring OHVs to have spark arrestors will help to minimize this hazard.

OHVs directly destroy and damage vegetation, and indirectly inhibit (via soil detachment, soil compaction, accelerated erosion, and consequent loss of soil layers which contain essential plant nutrients) the ability of various plants to grow and survive. Soil compaction often results in a loss of moisture, increases in temperature extremes, and accelerated erosion, which, in turn, affects the microclimate of individual plants. With continued use over a large area, OHVs can have a deleterious effect on entire plant communities.

Direct damage to vegetation is quite evident on the intensively used portions of the site.

By affecting soils and vegetation, OHVs have adverse effects on wildlife through direct loss of habitat. OHVs can damage vegetation that provides shelter or food to animals; they can destroy underground shelters built by rodents and other small mammals, and they can kill or injure animals through direct contact.

No rare or endangered plants or animals are known to exist in the unit.

## Energy

Continued use of the area by off-highway vehicles, combined with travel to and from the unit, will consume energy resources in the form of non-renewable fossil fuels. Initial operational, maintenance, and patrol activities will generate an increase in energy use, but this increase will not significantly affect energy resources. Development of all necessary utilities is economically feasible, and presents no unusual difficulties.

Construction of new facilities will require consumption of energy.

### Mitigation Measures

The Department of Parks and Recreation will develop and implement resource management proposals, given sufficient personnel and funds. From studies, information will be used to determine which areas are less suitable for OHV use, and to develop and implement appropriate management techniques involving a coordinated program of trail design, revegetation, maintenance, and corrective treatment. This approach will include the following measures to meet the requirements of the Public Resources Code:

1. Measures will be taken to keep erosion to a minimum by proper selection of locations for design of OHV trails and use areas.
2. Prompt use of rehabilitation techniques such as treatment of gullies and rills, replacement of topsoil, and revegetation will be used where appropriate. Where the soil is severely compacted and vegetation cannot be reestablished by natural methods, additional soil treatment will be made. Funds will need to be budgeted for this purpose on an annual basis as part of the operation and maintenance expense for the unit.
3. Sediment from OHV use areas will be controlled by methods including construction and maintenance of debris basins, windbreaks, and gully-control structures. Where it is feasible, deposited material will be used to fill gullies and to construct debris barriers, or it may be mixed with topsoil to rehabilitate damaged slopes.
4. Cross-country trails will be developed along natural contours, and will avoid landslide or slump-prone areas as much as possible.
5. Erosion and sediment transport will be reduced by closing the area to OHV use after major storms, during periods of substantial rainfall, or when soils are more susceptible to erosion by abrasion.
6. Non-conventional OHV equipment that causes greater than normal soil damage will be prohibited in the unit.
7. Badly eroded use areas such as hillclimbs will be closed and rehabilitated or reclaimed.

The effectiveness of the above policies and measures for controlling erosion will depend on the willingness of users to abide by the resource protection rules (e.g., to keep on designated trails and keep off protected areas), the ability of the department to enforce these rules, and the success of efforts to reclaim and rehabilitate damaged slopes.

8. Monitoring will be done on a continuing basis to determine the condition and trends of the vegetation. Areas found to have lost a significant percentage of their vegetative cover will be closed to OHV use and will be revegetated.

9. Muffler and noise level requirements established by the California Vehicle Code will be enforced. The noise limit for an OHV built after 1974 is set at 86 dBA (measured from 50 feet away).
10. Safety will be a key concept in development and operation of Carnegie SVRA. At the entrance kiosk, users will receive literature containing safety tips and showing the location of hazardous riding areas. Riders will be encouraged to use personal safety equipment such as helmets, gloves, and eye protectors. Trails will be routed away from hazardous areas, and signs or barriers will be placed around these places if necessary. There will be a first-aid station at the visitor center, and rangers will be trained and equipped to render first aid.
11. Trash receptacles will be placed at the headquarters area, staging areas, camping areas, and special use area. These receptacles will be emptied on a regular basis, with refuse hauled to the nearest county disposal site.
12. Since the amount of fuel used getting to riding areas is much greater than that used riding off-highway, the net consumption of fuel for OHV recreation should be less at Carnegie SVRA because of its closeness to urban areas. Operational energy needs will be less because of the use of solar and wind energy to heat water and buildings, pump water, and possibly generate electricity at the unit headquarters.
13. Provision of riding space allows confinement of erosion and sedimentation problems, although without mitigation measures, some silt will be transported into Corral Hollow Creek. This could cause "clogging" of the creek channel with sediment, thus increasing the potential for and the extent of flooding.

The amount of erosion and site disruption is proportional to the intensity of use. The front slopes facing the parking lot and spectator area receive the highest degree of use, and consequently show the most apparent damage. The proposed facilities will increase the number of riders and the amount of erosion on the site.

14. The combined effects of soil structure, plant cover, and development of crusts enhance soil stabilization. The sensitivity of soils to vehicular use is highly variable, but the factors contributing to erosion, including the low average rainfall, are expected to be minimal, especially if Public Resources Code requirements can be met.
15. All structures planned for human occupancy will be designed and constructed to state earthquake standards, as specified in Title 22 of the California Administrative Code.
16. Water will come from wells, and will be tested to make sure it meets county and state public health and water quality standards. Pump-out toilets will be used to prevent contamination of the water supply.
17. Visitors will be notified of use restrictions through brochures, press releases, and signs near the entrance.
18. Enforcement of laws requiring all vehicles to have spark arrestors will minimize fire hazards during the dry summer season.

19. Cultural features will be protected, as outlined in the Resource Element. They will also be interpreted, as outlined in the Interpretive Element.

Please see the Resource Element for a description of measures to mitigate and improve impacts that will be caused by the proposed project and proposed operation.

The Land Use and Facilities Element includes factors such as debris basins to reduce environmental impacts.

Significant Environmental Impacts That Cannot Be  
Avoided If The Proposal Is Implemented

Many of the impacts associated with this project will be mitigated to some extent. Implementation of these measures may result in beneficial impacts on the environment. Although controls are placed on users, many OHV-related impacts are adverse and cannot be avoided, due to the nature of the land use. A brief summary of these effects follows:

1. Soils/Geology -- Although controls will be placed on off-highway-vehicle use, accelerated erosion through physical downslope movement and weakening of soil structure, causing increased wind and water erosion, will continue to occur. The degree of erosion is greatest in the intensively used hillclimb area. Soil compaction on off-highway-vehicle trails and routes will continue to affect soil productivity and runoff.
2. Air Quality -- Air pollutants will continue to be generated by travel to and from the site, and by recreation use in the area. Air quality is not expected to be significantly degraded by this project, although the potential for some deterioration exists.
3. Noise -- Noise impacts will continue to affect wildlife and persons using the facility, but this impact will be reduced through mandatory requirements of mufflers on off-highway vehicles.
4. Esthetics -- In the area receiving use by off-highway vehicles, the presence of vehicles will continue to affect the esthetic values.
5. Water Quality/Hydrology -- Off-highway-vehicle activity will continue to contribute to siltation and sedimentation. Water will be consumed by visitors, irrigation, and operation of the unit.
6. Vegetation -- Adverse impacts to vegetation will continue through soil compaction, erosion, and direct contact.
7. Wildlife -- Wildlife will continue to be affected by the presence of vehicles in the area. There will be some direct injury from vehicles, as well as indirect damages through habitat loss, noise, and air and water quality degradation.
8. Energy -- Vehicular recreation involves use of significant amounts of non-renewable fossil fuels. These resources will be used for transportation to and from the area, as well as while there.
9. Traffic -- Besides causing air pollution and using non-renewable fossil fuels, traffic will cause congestion.

## Alternatives To The Proposed General Plan

### 1. No Project (No New Development and Management)

The unit could be managed as it is now. There would be no new facilities, a minimum of regulation, and no new resource protection or rehabilitation. Significant adverse environmental impacts of soil erosion, sedimentation, vegetation and wildlife habitat loss, and esthetic degradation would continue unabated.

This alternative would not fulfill the legal obligation of the department to ensure that "no substantial natural values are lost and that no adjoining properties incur adverse effects from the operation and maintenance of vehicular recreation areas."

### 2. Development and Operation Alternatives

#### a. Open the Entire Unit to Unrestricted Riding

Soil erosion, scarring of the landscape, sedimentation, and destruction of the biota would continue as before, and would become more widespread. Large parts of the unit would soon be rendered unfit for riding. Effects on neighboring lands would be uncontrollable.

#### b. Exclusive Use by Motorcycles or Shared Use With 4-Wheel OHVs

Some thought was given to restricting the unit to motorcycles only. Since 4-wheel vehicles have few areas, the extreme western end of the unit will provide for some 4-wheel use.

#### c. No Reclamation or Rehabilitation of Damaged Soils, and No Construction of Debris Basins

In managing state vehicular recreation areas, the department is legally required to prevent accelerated and unnatural erosion, to the extent possible. When excessive erosion occurs, the area will be reclaimed or rehabilitated. The department is also required to prevent adjoining areas from experiencing adverse impacts from SVRAs. Hence, the department has no choice but to reclaim or rehabilitate OHV-damaged areas, and to build debris basins to contain sedimentation on the unit.

#### d. No Visitor Services

Visitor services include: campgrounds, picnic areas, turf, entrance stations, orientation centers, literature, first-aid stations, water, restrooms, interpretive programs, special events areas, and other services. These will give users the information they need to know about the area in order to protect themselves and the natural resources from injury. These services also provide conveniences and comforts, and they can add an element of interest for visitors and non-riders, as well as riders.

The Relationship Between Local Short-Term Uses Of Man's Environment  
And The Maintenance And Enhancement Of Long-Term Productivity

The long-term environmental effects of the proposal are discussed under Environmental Impacts. The increased rate of soil loss caused by OHVs will permanently diminish the land's capacity to produce food, forage, and wildlife for human benefit.

It should be stressed, however, that these predicted diminishment of long-term productivity are less severe than what would occur if unrestricted OHV use were allowed. Likewise, other uses to which the land would likely be put were it not in State Park System ownership -- residences, industries, private OHV parks -- could easily have greater negative impacts on the environment, and could narrow even more the range of beneficial uses to which the land could be put. From a broader perspective, development of Carnegie as proposed should, by drawing OHV recreationists from all over Northern California and concentrating them in a manageable unit, benefit the environment of the region as a whole.

Irreversible Environmental Changes

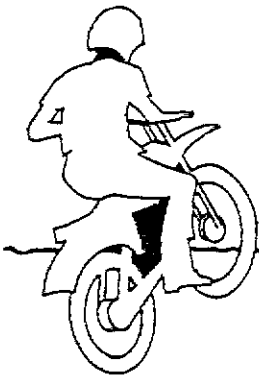
This project involves the commitment of resources in the form of money and fossil fuels in a non-reversible manner. The loss of soil and associated vegetation from trails, roads, and hillclimbs, and the alteration of landforms to control degradation will result in some irreversible environmental changes of the site itself. Some non-renewable fossil fuels and materials will be committed to maintenance and enhancement of damaged areas, and for development of proposed facilities.

Growth-Inducing Impacts

A result of the department's proposed facilities could be a significant increase in use of the site. There will an increase in demand for local goods and services associated with increased use.

The popularity of the new facilities may cause many new individuals to become interested in off-highway recreation. This, in turn, will increase the demand for new acquisition and development of OHV units.





# CARNEGIE NEWSLETTER 4

State Vehicular Recreation Area

January 1981

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION

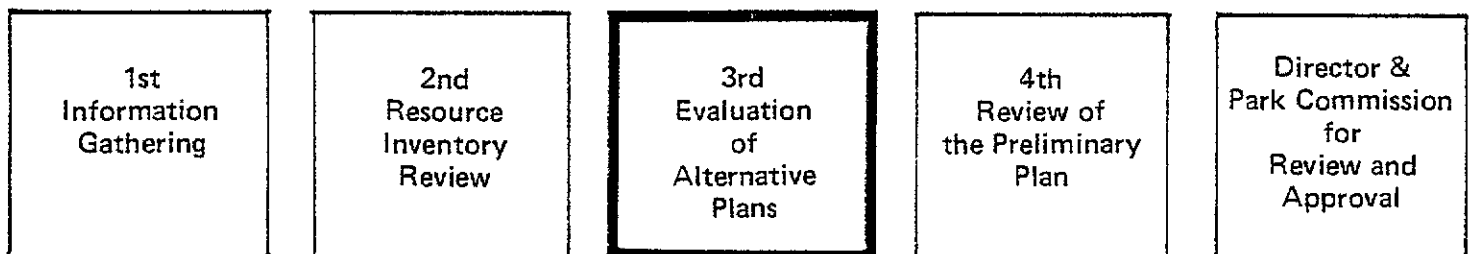
## RESULTS OF PUBLIC MEETING NO. 3 HELD OCTOBER 22, 23

The Carnegie State Vehicular Recreation Area General Plan study began last January with research and data collection for the unit. Through correspondence, interviews, questionnaires, and public workshop meetings, people have helped shape the recreation alternatives for Carnegie SVRA.

This newsletter summarizes the information we acquired at the public meetings held in Stockton and Hayward on October 22 and 23. With this information in hand, we will now prepare the preliminary plan.

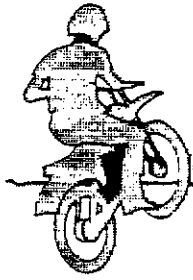
We expect to hold public meetings in early Spring to review the preliminary plan.

### GENERAL PLAN SCHEDULE OF PUBLIC MEETINGS



Current step in the  
planning process

The goal of our public involvement planning process is to consider the needs of local and regional users and address the concerns of local and county government as well as statewide planning needs. It is not intended that any one user interest should control the outcome of the planning process, but that all interests should be considered and contribute to better planning decisions.



# CARNEGIE

Off Highway Vehicle Project

## THE MEETINGS

The meetings were held to examine alternative land use and facility choices that had been developed from prior meetings and questionnaires.

The first meeting in Stockton on October 22 was attended primarily by landowners who were concerned about a proposed expansion of the existing Carnegie SVRA. The expansion was aimed at enhancing accommodation of 4-wheel-drive activities. The owners attending the meeting made it clear that they were not interested in selling their property.

Once we determined that the majority of the audience was primarily concerned with the proposed acquisition, we amended our meeting agenda to deal with their concerns. We explained the acquisition process and noted that this proposal is in a very early stage.

Of the approximately 40 people attending the Stockton meeting, only four were OHV enthusiasts.

The October 23 meeting in Hayward was attended by 23 users who shared their views with us regarding the various alternatives presented.

In addition to the direct discussion, we distributed a survey form at the meetings and also to our mailing list. 223 of these questionnaires were returned.

## HERE IS WHAT WE HEARD

### At The Meetings

Do not buy additional land as proposed

Provide portable sanitary facilities for special events

Permanent restrooms are acceptable if cost effective

Showers are not needed

Four-wheel-drive vehicles should be allowed to use the facility on an alternating basis with motorcyclists (develop some form of a rotating weekend schedule)

Regarding facilities and activities, the groups expressed preferences for:

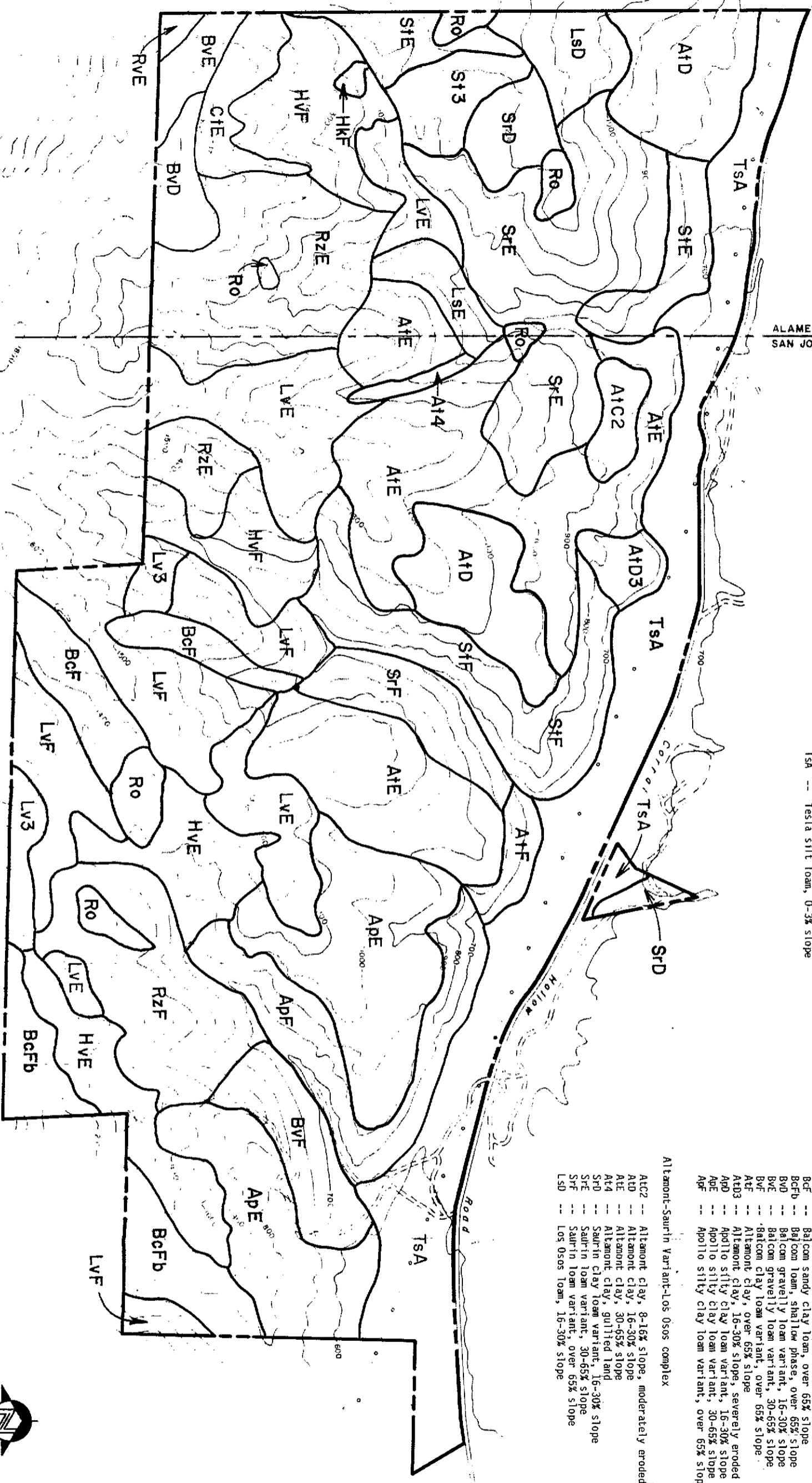
- Primitive campsites with chemical toilets
- Hillclimbs, moto-cross tracks, flat tracks, sand drag areas, and mud drag areas for general and competition use
- Beginners riding area
- Restrooms with flush toilets in day-use areas
- Tables, shade trees, and a small turf area in day-use area
- Interpretive panels and printed handouts for user information
- 2-way trail systems for dirt bikes
- No rough terrain area specifically set aside for 4-wheeled vehicles
- Lighted moto-cross and fiat track for night riding
- Food and beverage concession

From The Questionnaires (223 Responses Tabulated):

ALTERNATIVES		RESPONSES	
		NUMBER	
1.	Camping		0
a.	Camping with R.V. hook-ups	34	
b.	First-class campsites (restroom & hot showers)	63	
c.	Primitive campsites (chemical toilets)	124	
d.	No camping	21	
2.	Event facilities maintained for general and competition use such as:		
a.	Hillclimbs (dirt bikes)	158	
b.	Moto-cross tracks (dirt bike)	154	
c.	Flat tracks (dirt bike)	97	
d.	Sand drags (4-wheeled vehicle)	52	
e.	Mud drags (4-wheeled vehicle)	57	
f.	Others	35	
3.	Beginners Area		
a.	Beginners riding area	164	
b.	None	49	
4.	Improved day-use area to include:		
a.	Paved parking area	30	
b.	Restroom buildings (with flush toilets)	103	
c.	Hot showers	24	
d.	Tables	101	
e.	Shade trees	157	
f.	Small turf area	46	
g.	All of the above	25	
h.	None of the above	21	
5.	Interpretation		
a.	Interpretive panels	42	
b.	Printed handouts	87	
c.	Campfire programs	37	
d.	Interpretive trails	50	
6.	Dirt Bike Facility		
a.	One-way dirt bike trail system	98	
b.	Two-way dirt bike trail system	117	
7.	Rough Terrain Area		
a.	Set aside a permanent area for 4-wheeled vehicles which includes steep and rough terrain	113	
b.	No rough terrain area set aside for 4-wheeled vehicles	97	
8.	Lighted event areas for night riding, such as:		
a.	Moto-cross	68	
b.	Flat track	97	
c.	Hill climb	35	
d.	Other	11	
e.	None	113	
9.	Concessions		
a.	Food and beverage concession	186	
b.	Parts concession	154	
c.	Bike and equipment rental	55	
d.	OHV storage	24	

223

ALAMEDA CO.  
SAN JOAQUIN CO.



Contra Costa Variant-Los Osos Variant-San Timoteo complex

- CTE -- Contra Costa shaly clay loam variant, 30-65% slope
- LSE -- Los Osos loam, 30-65% slope
- LVE -- Los Osos gravelly loam variant, 30-65% slope
- LV3 -- Los Osos gravelly clay loam variant, over 65% slope
- STE -- San Timoteo fine sandy loam, 30-65% slope
- SF -- San Timoteo fine sandy loam, over 65% slope
- ST3 -- San Timoteo fine sandy loam, severely eroded

Tesla-Riverwash Complex

- TSA -- Tesla silt loam, 0-3% slope

Hemlock Variant-Reliz-Rock Outcrop complex

- HKF -- Hemlock gravelly clay loam, over 65% slope
- HVE -- Hemlock gravelly loam variant, 30-65% slope
- HVF -- Hemlock very shaly clay loam variant, over 65% slope
- RVE -- Reliz loam variant, 30-65% slope
- RZE -- Reliz loam, 30-65% slope
- RZF -- Reliz gravelly sandy clay loam, over 65% slope
- Ro -- Rock outcrop

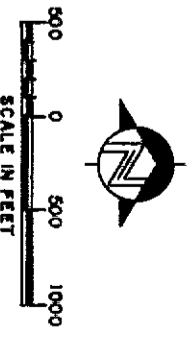
Balcom Variant-Altamont-Apollo Variant

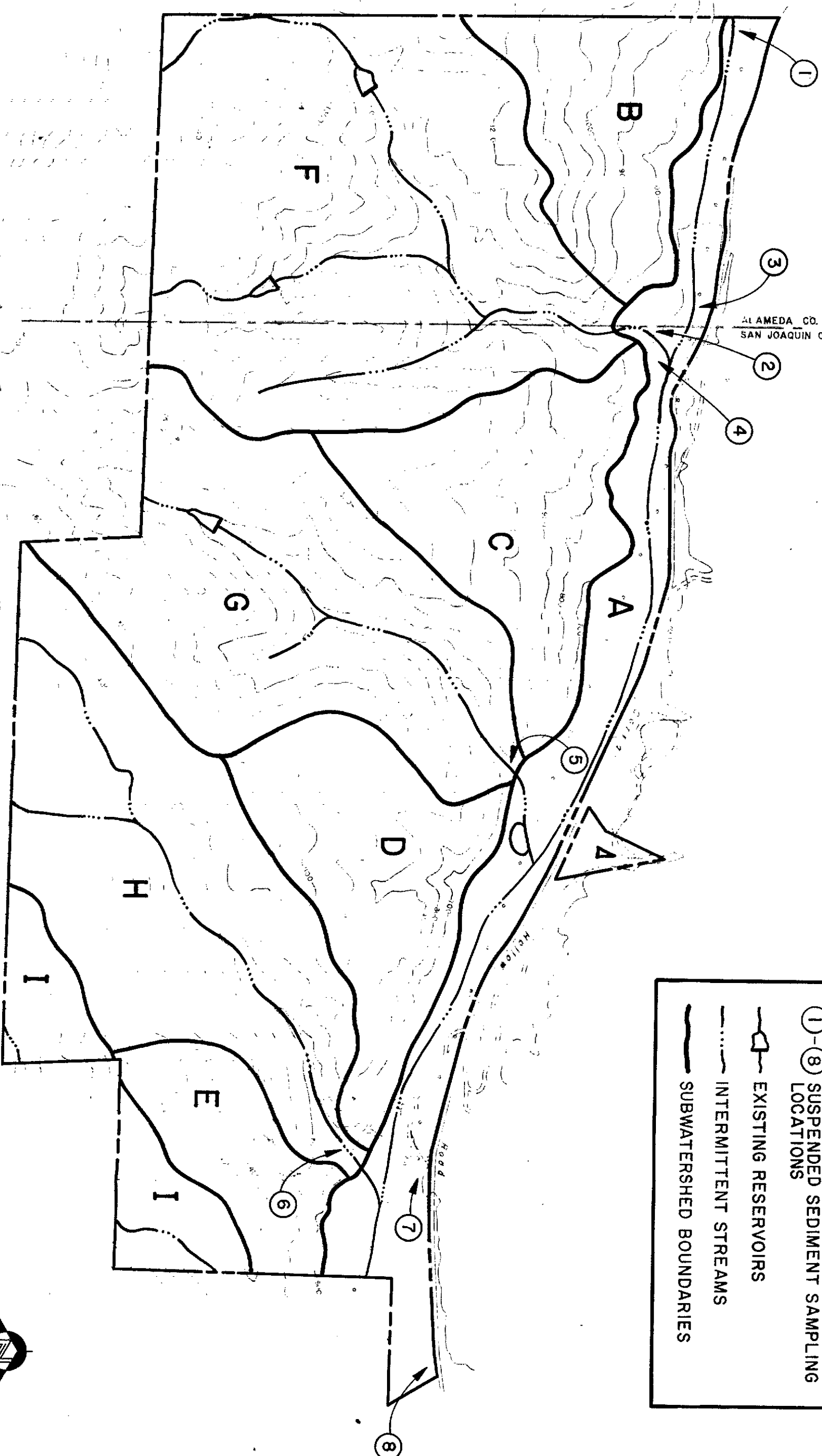
- BCF -- Balcom sandy clay loam, over 65% slope
- BCFb -- Balcom loam, shallow phase, over 65% slope
- BVD -- Balcom gravelly loam variant, 16-30% slope
- BVE -- Balcom gravelly loam variant, 30-65% slope
- BVF -- Balcom clay loam variant, over 65% slope
- A1D3 -- Altamont clay, over 65% slope
- APD -- Apollo stilly clay loam variant, severely eroded
- APD3 -- Apollo stilly clay loam variant, 16-30% slope
- APF -- Apollo stilly clay loam variant, 30-65% slope
- APF -- Apollo stilly clay loam variant, over 65% slope

Altamont-Saurin Variant-Los Osos complex

- A1C2 -- Altamont clay, 8-16% slope, moderately eroded
- A1D -- Altamont clay, 16-30% slope
- A1E -- Altamont clay, 30-65% slope
- A1F -- Altamont clay, gullied land
- S1D -- Saurin clay loam variant, 16-30% slope
- S1E -- Saurin loam variant, 30-65% slope
- S1F -- Saurin loam variant, over 65% slope
- LSD -- Los Osos loam, 16-30% slope

LEGEND TO SOILS MAP





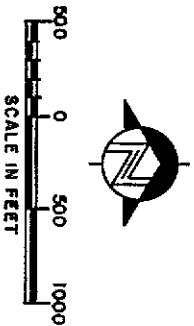
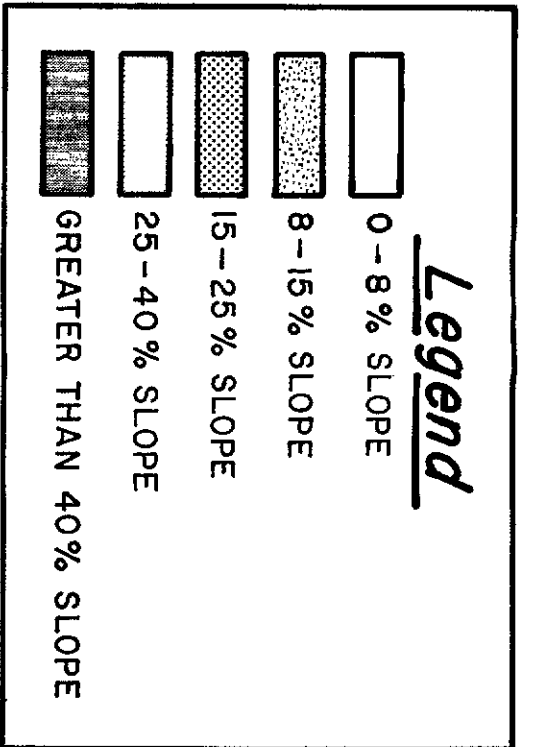
**Legend**

- A-I MANAGEMENT COMPARTMENTS
- ①-⑧ SUSPENDED SEDIMENT SAMPLING LOCATIONS
- EXISTING RESERVOIRS
- - - INTERMITTENT STREAMS
- SUBWATERSHED BOUNDARIES

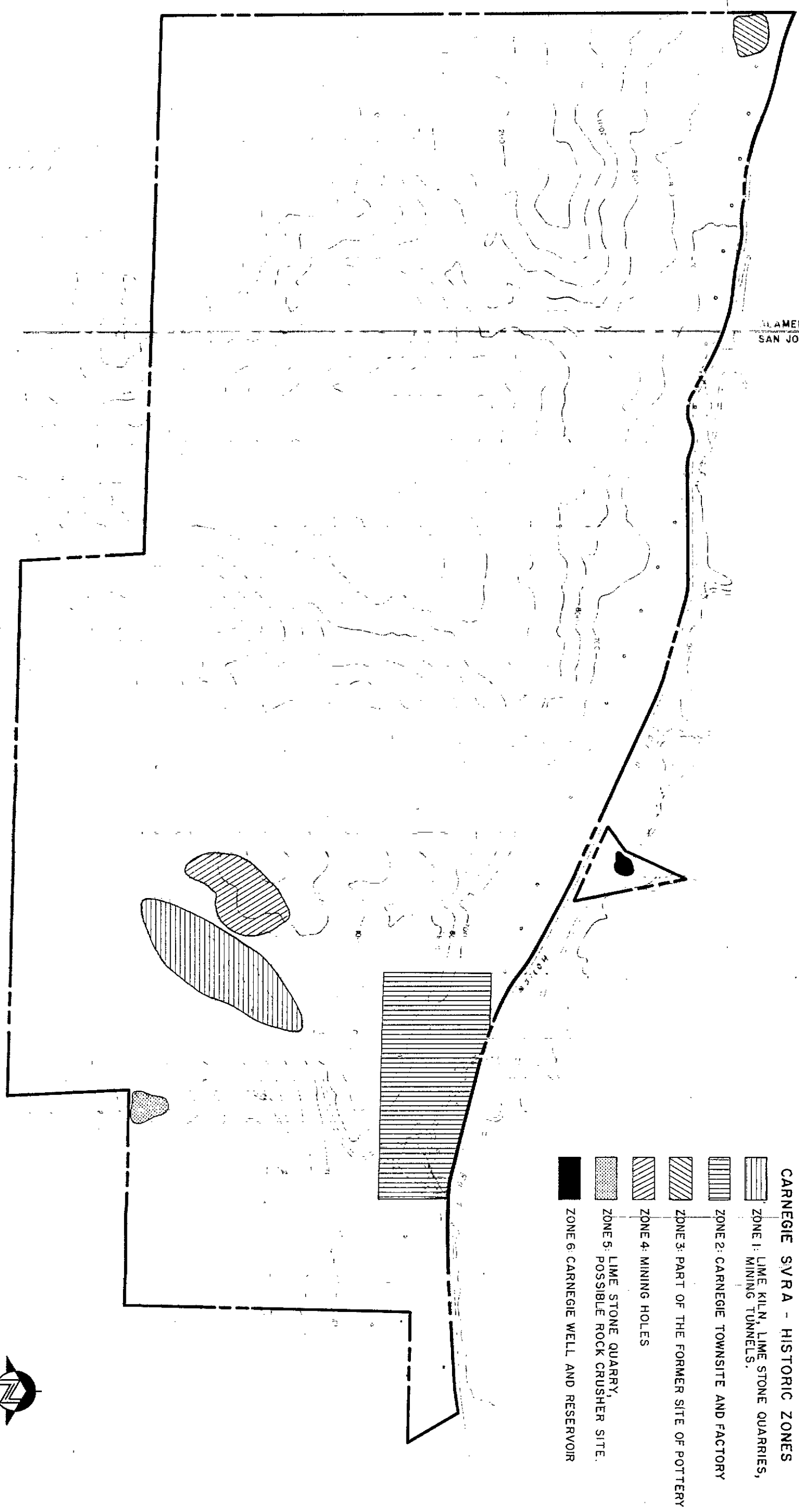
DRAWING NO. <b>17987</b>	SHEET NO. <b>2</b> OF <b>7</b>	CARNegie STATE VEHICULAR RECREATION AREA		RESOURCES AGENCY OF CALIFORNIA		REVISIONS	DATE	DESIGNED
		<b>WATERSHED MAP</b>		DEPARTMENT OF PARKS AND RECREATION				DRAWN <b>FEB. 1981</b>
				APPROVED _____ DATE _____		CHECKED		









ALAMEDA CO.  
SAN JOAQUIN CO.

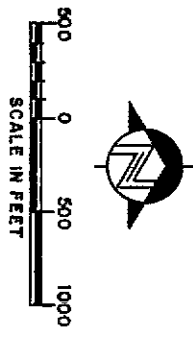


ALAMEDA CO.  
SAN JOAQUIN CO.

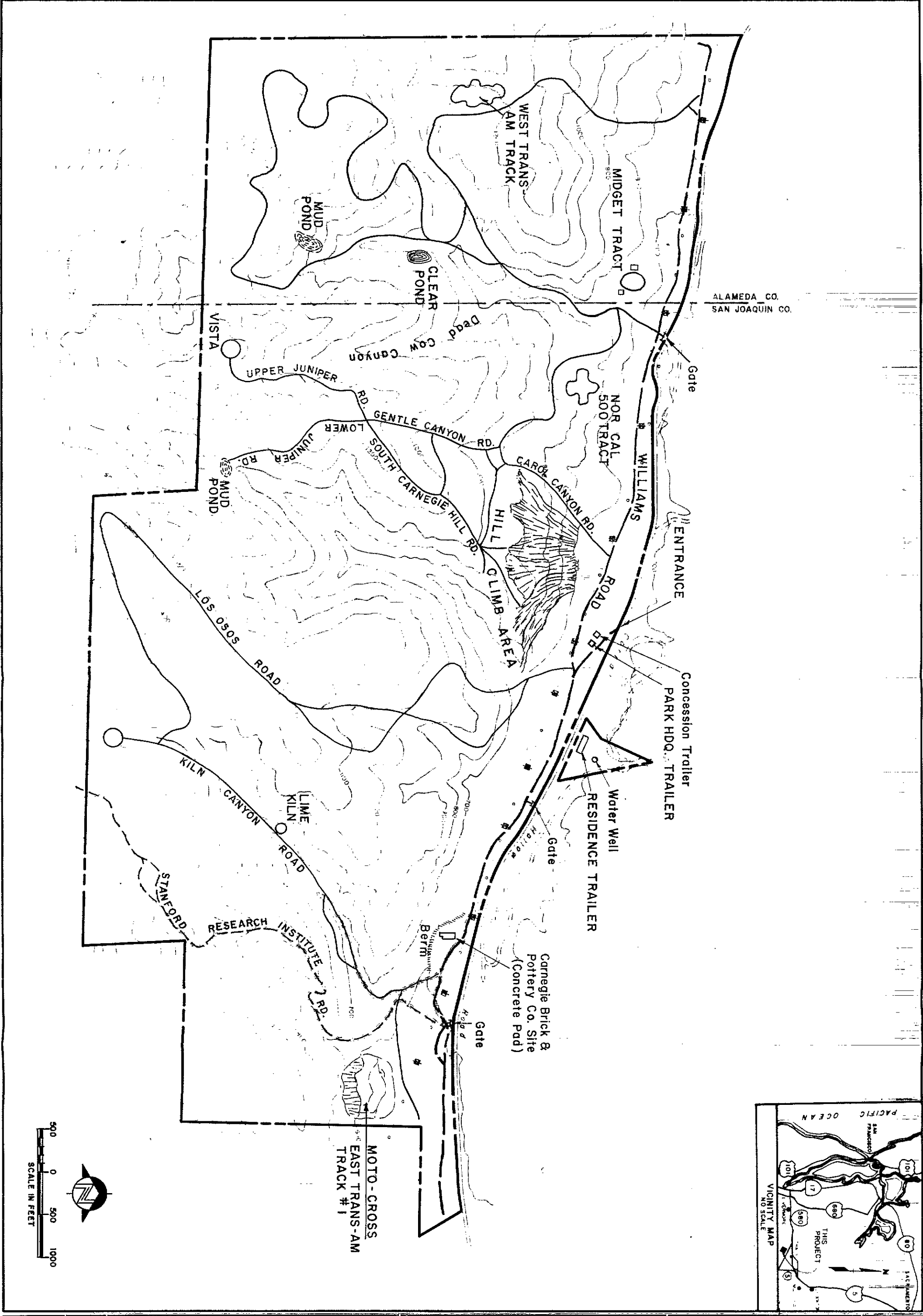


**CARNEGIE SVRA - HISTORIC ZONES**

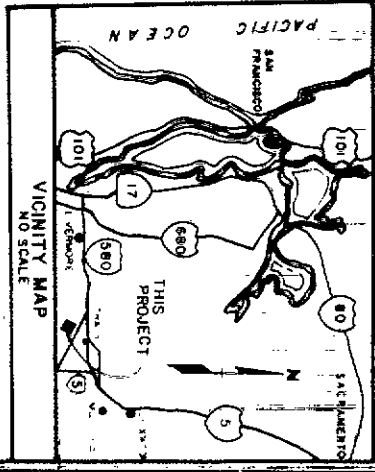
- 
 ZONE 1: LIME KILN, LIME STONE QUARRIES, MINING TUNNELS.
- 
 ZONE 2: CARNEGIE TOWNSITE AND FACTORY
- 
 ZONE 3: PART OF THE FORMER SITE OF POTTERY
- 
 ZONE 4: MINING HOLES
- 
 ZONE 5: LIME STONE QUARRY, POSSIBLE ROCK CRUSHER SITE.
- 
 ZONE 6: CARNEGIE WELL AND RESERVOIR



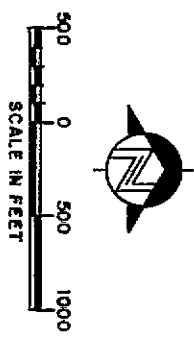
SHEET NO. <b>4</b> of <b>7</b>	<b>CARNEGIE STATE VEHICULAR RECREATION AREA</b> <b>HISTORIC ZONES</b>	RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION APPROVED _____ DATE _____	REVISIONS _____ DATE _____	DESIGNED _____ DRAWN <b>FEB. 1981</b> CHECKED _____
---	--	---	-------------------------------------	--



ALAMEDA CO.  
SAN JOAQUIN CO.



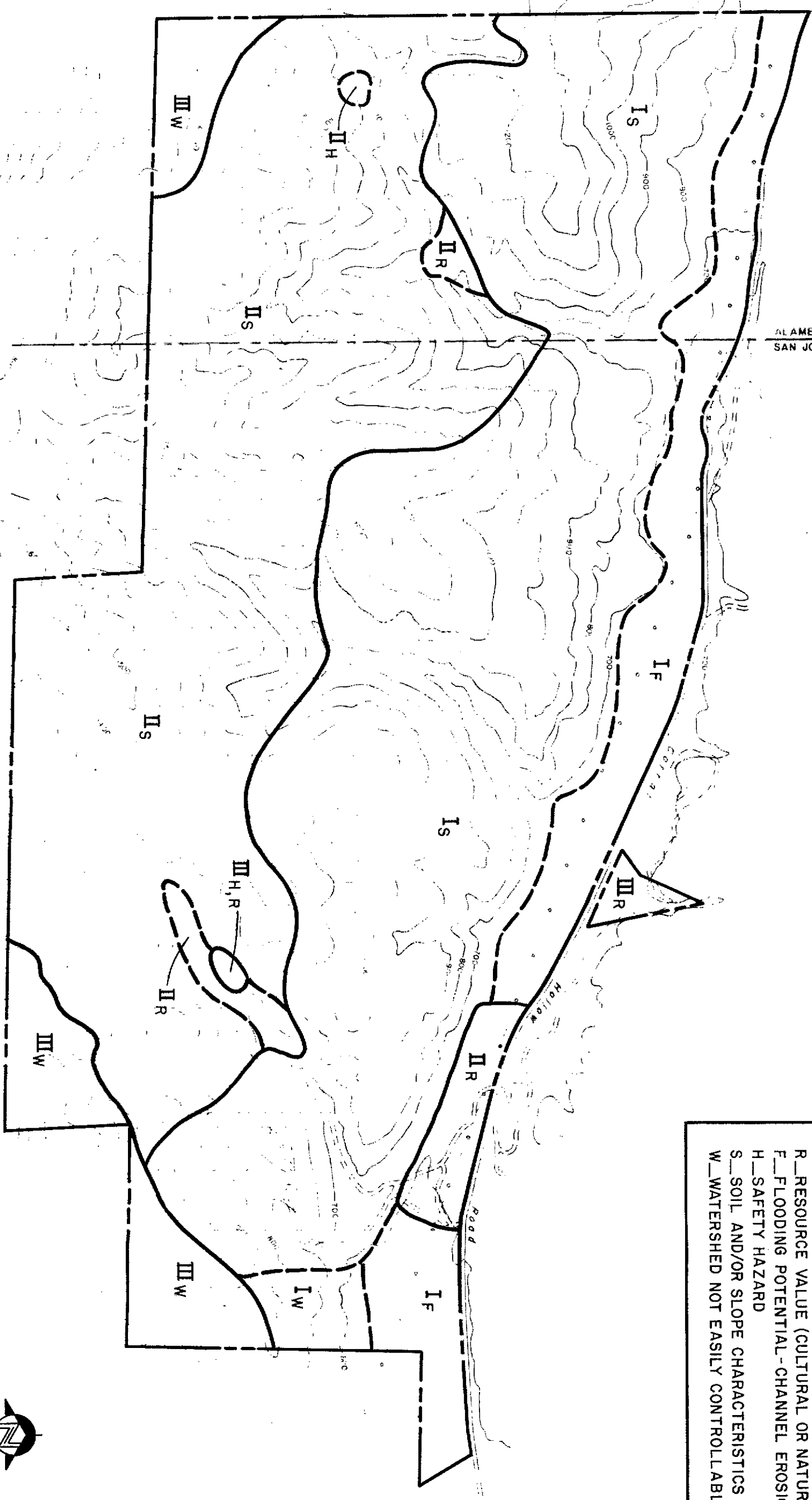
MOTO-CROSS  
EAST TRANS-AM  
TRACK # 1



DRAWING NO. <b>17987</b>	SHEET NO. <b>5</b> of <b>7</b>	CARNegie STATE VEHICULAR RECREATION AREA  <b>EXISTING FEATURES</b>	RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION	REVISIONS	DATE	DESIGNED
			APPROVED _____ DATE _____			DRAWN <b>FEB. 1981</b> CHECKED

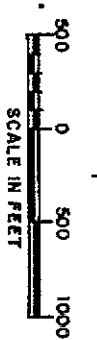


ALAMEDA CO.  
SAN JOAQUIN CO.



**Legend**

- I — OPEN USE
  - II — TRAIL USE
  - III — CLOSED
- LIMITING FACTORS**
- R — RESOURCE VALUE (CULTURAL OR NATURAL)
  - F — FLOODING POTENTIAL - CHANNEL EROSION
  - H — SAFETY HAZARD
  - S — SOIL AND/OR SLOPE CHARACTERISTICS
  - W — WATERSHED NOT EASILY CONTROLLABLE



DRAWING NO. <b>17987</b>	SHEET NO. <b>6</b> OF <b>7</b>	CARNegie STATE VEHICULAR RECREATION AREA		RESOURCES AGENCY OF CALIFORNIA		REVISIONS	DATE	DESIGNED
		<b>GENERAL PLAN</b>		DEPARTMENT OF PARKS AND RECREATION				DRAWN FEB. 1981
PROPOSED LAND USE AND INTENSITY		APPROVED	DATE			CHECKED		

# EVENTS AREA

- GYMKHANA - 4 x 4
- CROSS COUNTRY - 4 x 4
- CAMPING (Informal - 15± Acres)
- TRAILS

# DAY USE

- BEGINNER'S AREA
- PARKING WITH COMFORT STATIONS
- TURF AREA
- CONCESSION

# ENTRANCE / ADMINISTRATION

- ENTRANCE KIOSK
- OFFICE (First Aid Station)
- SERVICE YARD
- TRAILER SANITATION STATION
- ORIENTATION CENTER
- EMPLOYEE RESIDENCES (3 Existing Trailer Pads)

# CAMPGROUND (100± Sites)

- CAMPFIRE CENTER (100± People)
- COMFORT STATIONS

# DAY USE

- MOTOCROSS TRACK
- PICNIC AREA (15± Sites)
- COMFORT STATION
- PARKING

ALAMEDA CO  
SAN JOAQUIN CO.

LIVERMORE  
13 MILES

INTERSTATE 580  
6 MILES

EXISTING  
MOTOCROSS  
TRACK

GATE

CARNEGIE BRICK AND  
POTTERY COMPANY SITE

FRANCISCAN LOOP RD

UPPER JUNIPER RD.

LOWER JUNIPER RD.

GENTLE CANYON ROAD

SOUTH CARNEGIE HILL RD.

CAROL CANYON ROAD

LOS OSOS ROAD

KILN CANYON RD.

LIME KILN

- Legend**
- STREET VEHICLE ACCESS
  - PRIMARY TRAILS
  - STANFORD RESEARCH INSTITUTE ACCESS ROAD
  - ▲ CATCHMENT BASIN
  - ⊗ CULTURAL SITE



CARNEGIE STATE VEHICULAR RECREATION AREA  
**GENERAL PLAN**

RESOURCES AGENCY OF CALIFORNIA  
DEPARTMENT OF PARKS AND RECREATION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_

REVISIONS	DATE	DESIGNED

DRAWN FEB. 1981
CHECKED

DRAWING NO.  
**17987**

SHEET NO.  
**7**  
of  
**7**

This report was prepared by:

Gary Shannon  
Les Maddox  
Hank Ortman  
Wayne Caulkins  
Dave Schaub  
Joann Weiler  
Dave Vincent  
Larry Helm  
Ken Pierce  
Larry Martz

Assistant Landscape Architect  
Associate Landscape Architect  
Associate Landscape Architect  
Associate Civil Engineer  
State Park Resource Ecologist  
State Park Interpreter II  
State Park Ranger I  
State Park Manager I  
Associate Park and Recreation Specialist  
Research Writer

Under the supervision of:

Alan K. Kolster  
H. Lee Warren  
J. Leslie McCargo  
James P. Tryner  
William E. Pritchard  
Richard E. Felty

Senior Landscape Architect  
Supervising Landscape Architect  
Chief, Development Division  
Chief, Resource Protection Division  
Supervisor, Interpretive Planning Section  
Regional Director, Central Coast Region

Graphics by:

Ken Ferguson  
William Yee  
Gary Cave

Delineator  
Delineator  
Senior Delineator