

UNIT 207

FORT ROSS STATE HISTORIC PARK

GENERAL DEVELOPMENT PLAN

November 1975

FORT ROSS STATE HISTORIC PARK

Resource Management Plan
and General Development Plan

PRELIMINARY



DEPARTMENT OF PARKS & RECREATION
CALIFORNIA



FORT ROSS STATE HISTORIC PARK

Resource Management Plan and General Development Plan

October 1975

Note: The Park and Recreation Commission approved this Preliminary General Plan in NOV 1975
A Final General Plan was printed dated OCT 1975 ON COVER,
FEB 1976 ON TITLE PAGE.

Edmund G. Brown Jr.
Governor
State of California

Claire T. Dedrick
Secretary for Resources

Herbert Rhodes
Director
Department of Parks and Recreation



State of California – The Resources Agency
Department of Parks and Recreation
P.O. Box 2390
Sacramento, California 95811

K

This report prepared by:

Earl V. Carlson	Project Manager
Fred Meyer	Supervisor, Environmental Resources Section
Norman L. Wilson	Supervisor, Interpretive Planning Unit
Ronald J. Allison	Associate Landscape Architect
William E. Pritchard	State Park Archeologist
Donald R. Hook	Assistant Landscape Architect
Marsha Evanikoff	Delineator
Aldona Bechtel	Delineator
Mary Lowe	Senior Graphic Artist

This report prepared under the supervision of:

Robert F. Uhte	Chief, Design and Construction Division
H. Lee Warren	Supervising Landscape Architect
James Tryner	Chief, Resource Management and Protection Division



Preface

The world of 1812 was one of exploration and expansion by many nations. Colonization in North America, dominated by Britain, France, and Spain for three centuries, included the extension of a fourth major world power – Russia. In the spring of 1812 while Napoleon was in the process of temporarily conquering Moscow, Mexico was struggling for independence from Spain, and the United States was fending off Britain in the War of 1812, the Russian-American Company, an amalgamation of fur traders under charter of the Tsar, was establishing the colony of Fort Ross.

The historical significance of this last event was the primary reason for the establishment of Fort Ross State Historic Park. This report contains the Resources Management Plan which establishes policies and goals for use of the natural and cultural resources of the park and the General Development Plan which sets forth specific proposals for development of facilities.



The Russian-American Company symbol, the double-headed eagle, flew over Fort Ross proclaiming its allegiance to Tsarist Russia.

Acknowledgments

The historical photographs and maps are provided courtesy of the Fort Ross State Historic Park Citizens Advisory Committee, Friends of Fort Ross, and from the files of the State Department of Parks and Recreation. The 1817 map of Fort Ross on page 71 and Russian sketches on pages ii and 11 are from *The Russian Population in Alaska and California*, 1975, by Svetlana Fedorova.

Geology, slope, and soil information is provided by the California State Division of Mines and Geology.

Contents

	<i>Page</i>		<i>Page</i>
Preface	1		
I. INTRODUCTION	1	IV. GENERAL DEVELOPMENT PLAN	41
Purpose of Plan	3	Introduction	43
Project Description	5	Proposed Acquisition	43
II. RESOURCES INVENTORY AND ANALYSIS	11	Broad Acquisition Objectives	45
Cultural Resources	11	Existing Land Use	45
Prehistoric Cultural Resources	11	Proposed Development	46
Historic Cultural Resources	11	Historic Interpretation	46
Natural Resources	14	Interpretive Program	46
Visual Quality	14	Interpretive Areas	49
Vegetation	16	Research Program	51
Wildlife	18	Recreation Use	51
Topography	18	Day-Use Areas	51
Geology	20	Overnight-Use Areas	54
Soils	27	Administrative and Interpretive Facilities	56
Climate	30	Scenic and Forest Reserves	57
Resources Analysis	32	Highway 1 Relocation	57
III. RESOURCE MANAGEMENT PLAN	35	Operational Recommendations	57
Introduction	37	Recommendations for Further Study	60
Declaration of Purpose	38	V. ENVIRONMENTAL IMPACT REPORT	61
Declaration of Management Policy	38	Selected References	69
		APPENDIXES	71
		A - Partial List of Plant Life	
		B - Recreation Analysis	
		C - Funding for Fort Ross	

List of Figures

Figure 1 – Location Map	2
Figure 2 – Aerial showing project boundaries and areas of interest	4
Figure 3 – Aerial showing primary historic zone cultural areas	10
Figure 4 – Archeology Resource Map	12
Figure 5 – Visual Quality Resource Map	15
Figure 6 – Vegetation Resource Map	17
Figure 7 – Topography and Hydrology Resource Map	19
Figure 8 – Geologic Time Scale	21
Figure 9 – Geology Resource Map – Seismic Risk	23
Figure 10 – Geology Resource Map – Slope Stability	25
Figure 11 – Soils Characteristics	28
Figure 12 – Soils Resource Map	29
Figure 13 – Climate Resource Map	31
Figure 14 – Environmental Sensitivity Matrix	33
Figure 15 – Zone of Primary Cultural Interest	36
Figure 16 – Existing Site Development – Primary Historic Zone	44
Figure 17 – Interpretive Areas	48
Figure 18 – Design Prototype: Scenic Overlook Area	52
Figure 19 – Design Prototype: Recreational Vehicle Camp Area	53
Figure 20 – Design Prototype: Camp Areas	54
Figure 21 – Design Prototype: Group Camp Area	55
Figure 22 – Design Prototype: Personnel Housing and Administration Center	56
Figure 23 – General Development Plan – Primary Historic Zone	58
Figure 24 – General Development Plan	59

List of Photographs

	<i>Page</i>		<i>Page</i>
Fort Ross Chapel	Cover	Slide areas make maintenance of Highway One a difficult task	18
*Russian sketch of Russian sailors	ii	Cliffs along the ocean front near Fort Ross	26
Russian-American Company Symbol	iii	Pastoral scene near Fort Ross	35
Russian cemetery	1	Fort Ross chapel after the earthquake of 1906	37
1835 Map of North America	3	Scene inside chapel after 1956 restoration	37
Coastline near Fort Ross showing Russian road cut into cliffs	5	Fort Ross scene showing eucalyptus groves and telephone wires to be removed	39
°1820's sketches of Kashia Pomo people	6	Dehaut-Cilly lithograph, 1829	41
1843 wood cut of Fort Ross	7	Overuse of Fort Ross cove by recreationist	45
Early American period photographs showing: Ship loading boom used by Calls Carlos Call American use of Russian buildings	8	1841 print of Fort Ross	46
Fort Ross and cove	9	Recast chapel bell	49
*Russian drawing of Aleut hunters	11	Rotchev House, as restored	49
Archeological excavations at Fort Ross	13	Fort Ross during the Call Ranch era	50
Reburial of Russian settler with silver crucifix	13	Archeological Research at Fort Ross	51
Scenic showing wide level terraces above precipitous cliffs, typical of the Fort Ross area	14	Fort Ross scenic	61
Russian thistle	16	Fort Ross and environs	64
Sea otter	18	*1817 map of Fort Ross	71

*Fedorova
o Citizens Advisory Committee

I INTRODUCTION



I. INTRODUCTION

Project Purpose

Project Description

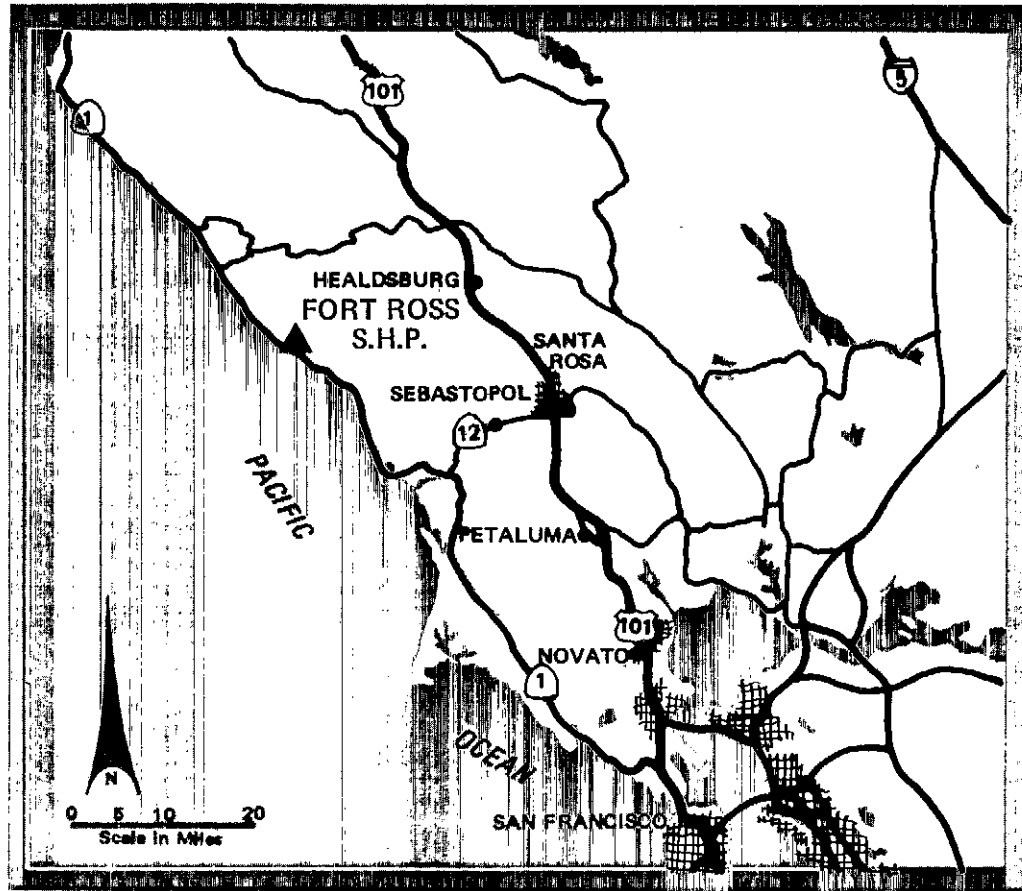


FIGURE 1

I. INTRODUCTION

Purpose of Plan

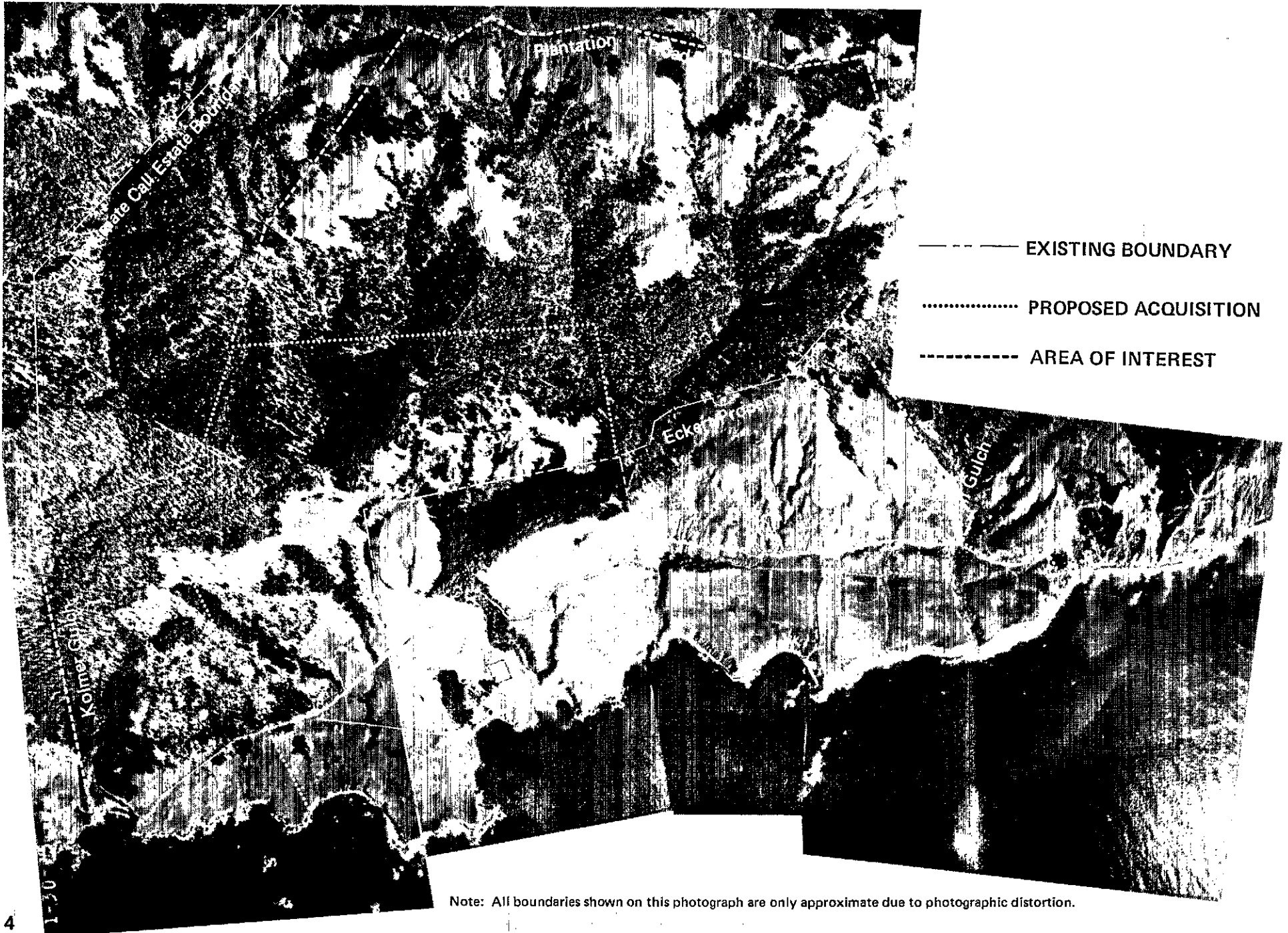
The Fort Ross State Historic Park General Development and Resource Management Plans are designed to serve as guidelines for all proposed park development. Their purpose is to provide policies for the development of facilities for visitor use and for the preservation of the cultural and natural resource values. Since it is the historic character of Fort Ross that inspired its establishment as a park unit, the greatest emphasis of this document is placed on historic values.

There are three fundamental qualities of this report that commonly characterize a general plan. First, it is *comprehensive*, since it represents a thorough investigation of all the known cultural and natural resources. Second, it is *flexible*. If new resource information becomes available, the plan can be modified to reflect current information. Third, it is *long-term*. Development to accommodate demand has been based on a twenty-year projection of visitor attendance. Projections of visitation cannot be accurately estimated beyond that time.



1835 map of North America

FIGURE 2 – AERIAL SHOWING PROJECT BOUNDARIES AND AREAS OF INTEREST



Note: All boundaries shown on this photograph are only approximate due to photographic distortion.

Project Description

Fort Ross State Historic Park is located on the Sonoma County coast, 11 miles northwest of the town of Jenner on State Highway 1. The unit presently contains 358 acres with 5000 feet of ocean frontage. Acquisitions in progress will add approximately 870 acres and 9,800 feet of ocean frontage. Additional acquisition would be desirable to preserve the historical integrity of the fort and its environs.

Ninety acres of tidelands are managed as an underwater park unit under a renewable ten-year lease from the State Lands Commission. The present lease began on August 1, 1970. This status protects by law the cultural resources found in the Fort Ross Cove, including sunken ships.

The major visitor attraction is the Russian fort compound, consisting of a stockade, two blockhouses, a Russian chapel, the Rotchev House, and a Russian well. These structures have been either restored or completely reconstructed since the Russian occupation during the years 1812-1841. Approximately 15 buildings of the American Period, constructed in the late nineteenth and early twentieth centuries, still stand in the area immediately west of Fort Ross.

Fort Ross lies on a one-third-mile wide coastal terrace between precipitous cliffs that drop 100 feet to the ocean, and slopes that sweep up to 1500 feet elevation. This flat wind-swept terrace is a sharp contrast to the downcoast strip where steep slopes plunge several hundred feet directly into the Pacific Ocean. Offshore rocks and an abundance of small promontories offer refuge to sea mam-

mals and birds.

In contrast to the rugged shore line, Fort Ross Cove possesses still water and a serene beach. Fort Ross Creek, slightly over two miles long, flows in a zig-zagged, northwesterly direction to the cove, its course having been displaced some 3000 feet by movement along the San Andreas Fault. The creek originates from springs on the mountain slopes, falling rapidly through a steep-sided ravine to a small floodplain at sea level. Its course traverses four vegetation types, coniferous for-

est, grassland, scrub and coastal strand. Open grasslands predominate on the coastal shelf, while Bishop pines and Douglas fir occupy the open slopes. Magnificent groves of coastal redwood occupy the protected hollows and ravines.

The San Andreas Fault is one of the most interesting natural features of the park, bisecting the property in a northwesterly direction. Evidence of land movement is easily detected by the variations in topography and the existence of numerous sag ponds.



Sketches of the Kashia Pomo people by Russians at Fort Ross in the 1820's



Historical Background of Fort Ross

Fort Ross State Historic Park is located in the traditional territory of the Kashia Pomo Indians. Ethnological data together with available archeological evidence suggest that these people have inhabited the region for at least the last several thousand years. Remains of large winter villages and smaller summer camps are scattered all along the coastal shelf and mountainous hinterlands. The numbers and locations of these sites indicate a large population of semi-sedentary peoples who were well adapted to the coastal shelf and redwood forests (Pritchard 1969). The Kashia Pomo were relatively undisturbed by the Spanish occupation of northern California and were still a culturally independent unit when the Russians arrived in 1812.

In the early nineteenth century, Russia was exploiting the far northern Pacific for its fur resources for trade with China. The Russian-American Fur Company, chartered by the Tsar, followed the sea otters to the northern California coast. Here, because of the need to produce food for their northern Pacific operations and the Tsar's desire for political expansion, they decided to establish a Russian farming community. Their selection of the Fort Ross area was prompted by the existence of a safe harbor at Bodega Bay and abundant timber for shipbuilding as well as the expanse of agricultural meadowland and supportive climate.

The Pomo Indians were inhabiting the Mad-shui-nui site (north of the present fort) when Commander Kuskov arrived on August 30, 1812. He leased the land from them and established Colony Ross on the headland for

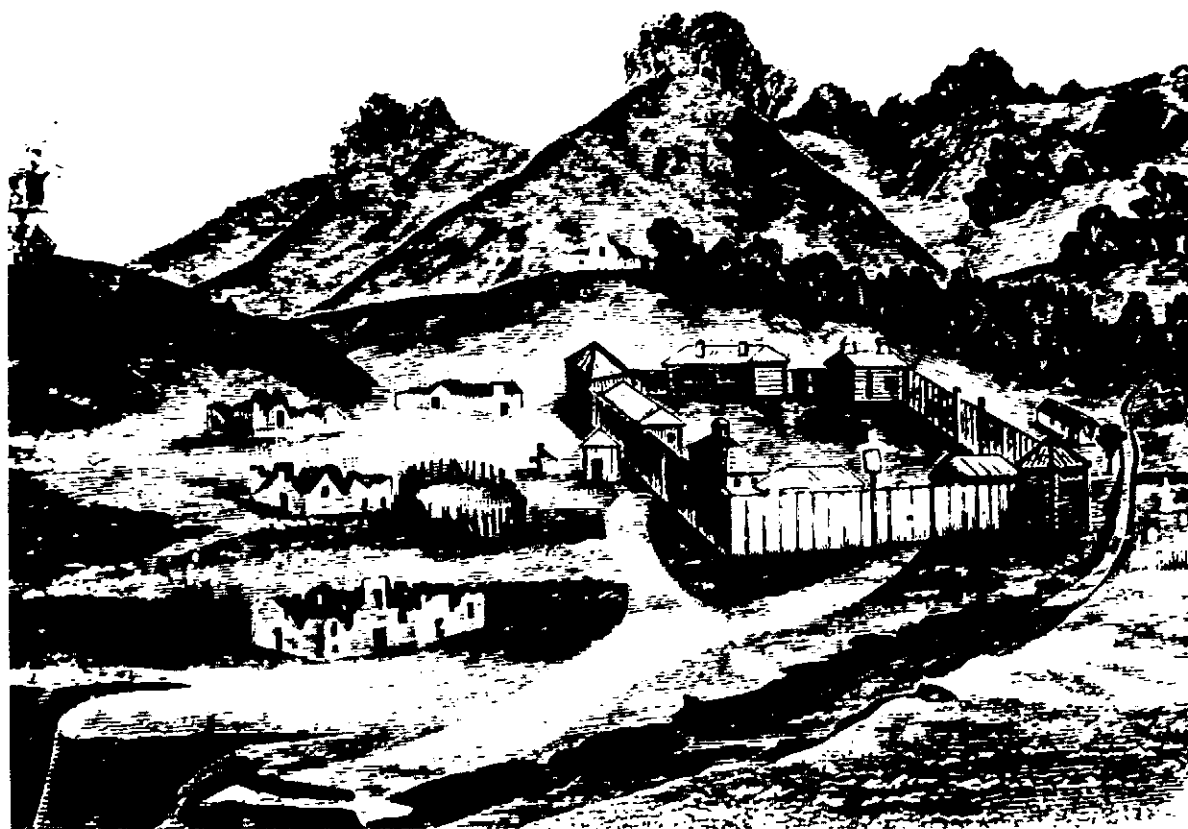
the Russian-American Fur Company. Relations between the Kashia Pomo and the Russians were good and a mutual respect was always maintained. (Haase 1955:8).

The primary interest of the Russians was not colonization, though the Tsar was eager to expand his influence into any territory not actively claimed by another, as were most of the European nations. The company's concern, however, was the development of a supply outpost. Spain, involved with the Mexican revolt, was too occupied to oppose this encroachment on land she had claimed.

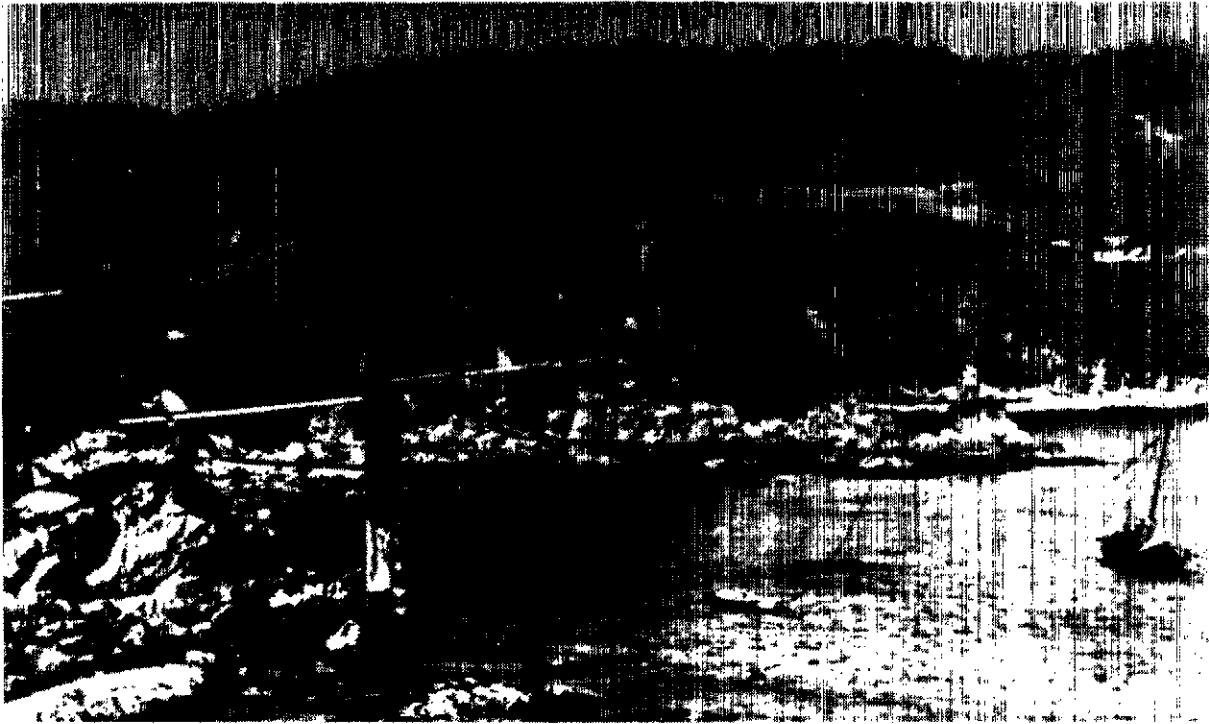
The Russians brought with them a number of Aleuts as a labor force. First a fort with stockade and blockhouses was erected, and later the homes, chapel, and numerous other structures of a complete community were built. There were barracks, storage barns for furs and grains, a smokehouse, bakery, and jail in the fort area and in the area of the cove, boathouses, a tannery, blacksmith shop, and bathhouse. The population of Colony Ross was about 300 people.

The Russians of the colony apparently maintained good relations with all California residents. They traded and had social interaction with the Spanish/Mexican colonies to the south and provided the isolated Californios and Yankees with iron implements, armaments and powder. It is true, though, that their presence was viewed as a political and military threat by men such as General Vallejo.

As the number of sea otters declined and agricultural land was depleted by overuse, the Russians decided to withdraw and offered their holdings for sale. The property was rejected by the Hudson Bay Company of



Fort Ross in 1843 from a wood block print by Waseurtz auf Sandels



Above: This boom, used by the Calls to load ships, blew down in a severe storm in 1898.



Left: Carlos Call, son of George Call, maintained the working Call Ranch until he retired. He was instrumental in promoting reconstruction of Russian structures at Fort Ross.

Below: The inhabitants of each period modified the Russian buildings to fit their needs. In the late 1800's the Rotchev house served as a hotel.



England and by General Vallejo of Sonoma. They finally sold the entire complex to John Sutter of New Helvetia. Russian ownership of the land was not recognized by the Spanish or Mexican governments. Sutter dismantled much of the Russian construction, shipping the lumber, livestock, armaments and other movable objects to his operation at New Helvetia. After passing through the hands of a number of owners during the brief Mexican land grant era (Muniz and Benitz) and early American Period (Fairfax and Dixon), the fort and its environs were finally purchased by George Washington Call in 1873. The Call family utilized many of the original structures of the fort in their lumbering, farming, shipping, and livestock raising activities. The Call ranch continued as an important coastal center until the late 1960's when Carlos Call (son of G.W. Call) retired.

In 1903 George Call deeded the immediate fort area of approximately 3.5 acres to the California Landmarks Committee of San Francisco. In 1906 Fort Ross became one of the first units in the State Park System. Additional acreage (about 354 acres) was obtained from the Call estate in 1962.

It is to interpret this colorful period of Russian colonization and its impact on the development of California that Fort Ross State Historic Park is being planned.

II RESOURCES INVENTORY AND ANALYSIS



II. RESOURCES INVENTORY AND ANALYSIS

Cultural Resources

Prehistoric Cultural Resources
Historic Cultural Resources

Natural Resources

Visual Quality
Vegetation
Wildlife
Topography
Geology
Soils
Climate

Resources Analysis

FIGURE 3 – AERIAL SHOWING PRIMARY
HISTORIC ZONE CULTURAL AREAS

1. Fort Ross
2. Russian Industrial Area
3. Kashia Pomo Village Area
4. Russian-American Area
5. Russian Road
6. Aleut Village Area



II. RESOURCES INVENTORY AND ANALYSIS

The intent of the Resources Inventory is to investigate the cultural and natural resources of Fort Ross State Historic Park. Through selection based on this study, those cultural and natural resources can be preserved that will provide the greatest appreciation for the cultural heritage of Fort Ross.

Shelter offered by Fort Ross Cove against the frequent north coast windstorms, timber provided by nearby groves of pines and redwoods, fertile farm lands of the coastal prairie, and an abundance of sea otters so valued for their fur were all factors in the Russian decision to colonize here.

The Kashia Pomo Indians had lived in harmony with these resources for several thousand years causing little modification in the landscape. The Russians worked with these resources and manipulated them to their advantage. Windmills were erected to capture the energy of the almost constant winds, wells were dug to supply fresh water, grasslands were trimmed low by grazing stock, and the fertility of the soil was drained in agricultural harvest. The Americans who followed caused some significant environmental changes that are still visible today.

Cultural Resources

The cultural resources of the park may be broken down into prehistoric and historic. The prehistoric population that is known for the area is the Kashia Pomo Indian. Euro-american resident populations of the historic period consist of Russian and American peo-

ples, although the Spanish had social interaction with both. In association with the Russians at Fort Ross were Aleuts and Eskimos who were imported as hunters and laborers for the Russian-American Company.

PREHISTORIC CULTURAL RESOURCES

There are eight prehistoric sites that have been recorded in the park, five along Fort Ross Creek and three sites on high ground elsewhere in the park. Of the latter three, one extends northward from the fort and was excavated both in 1970 and 1972 prior to the State Highway 1 relocation, since part of the relocated highway transects this site. This archeological site is identified tentatively as the Pomo village whose lands were "leased" by the Russian-American Company so that the Company could establish a colony in California with some hope of legal occupation rights on an international scale. To the west of Fort Ross, and overlain to a great extent by the Call ranch buildings, is another archeological site tentatively identified as the Pomo village which was constructed after the Russian-American Company leased the lands of the original village site.

HISTORIC CULTURAL RESOURCES

Features of the historic period include the partially reconstructed Fort Ross, evidence of Russian buildings outside the fort, its associated Indian and Aleut villages, and the Call Ranch buildings with associated archeological sites of American structures.

The Russian aspect of the historic period is deemed the more important aspect for re-



Sketch from Fedarova, 1972

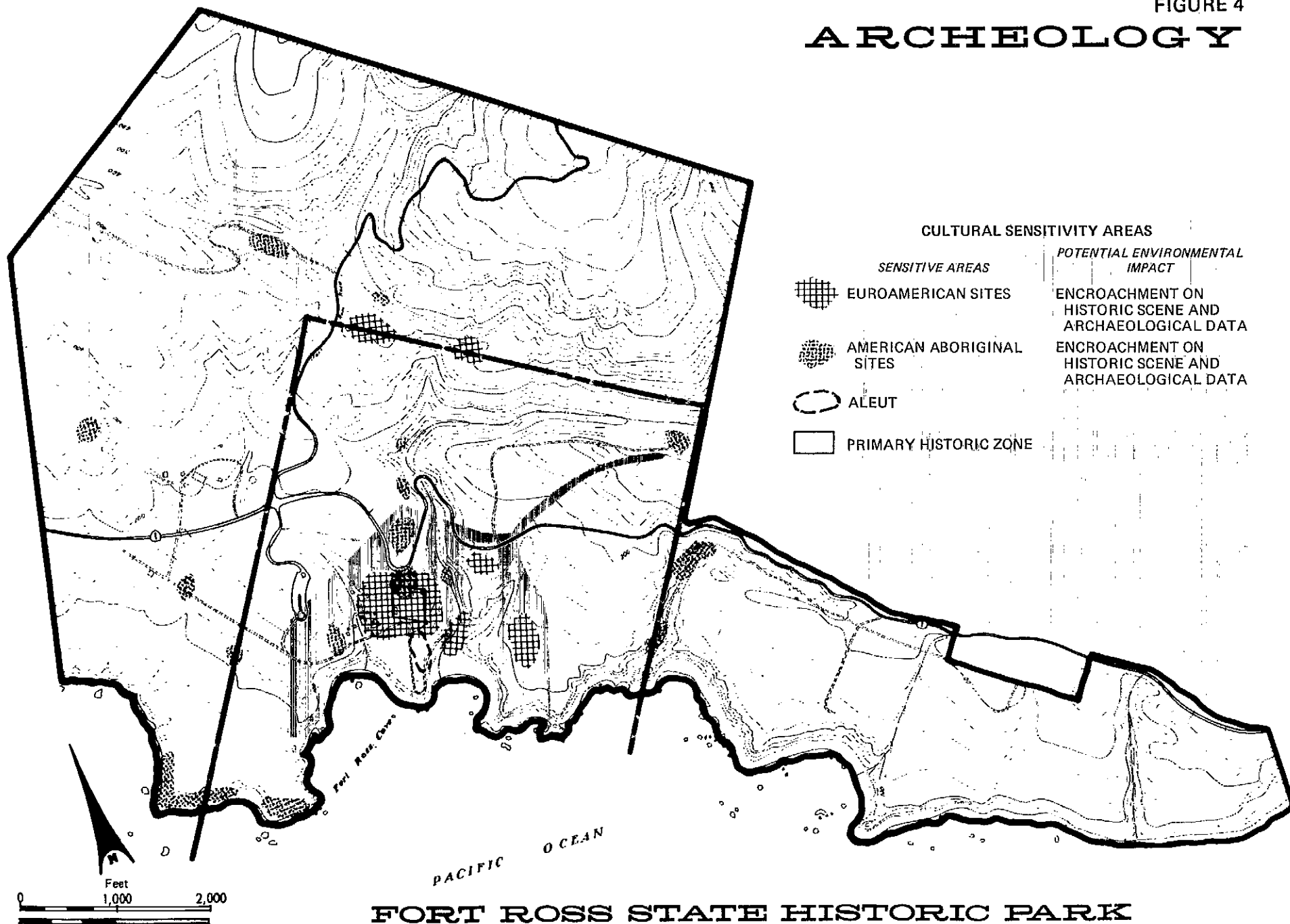
search and reconstruction/interpretation purposes due to its unique international background. The cultural inventory of the Russian aspect consists of the following: (1) reconstructed structures, (2) mobile artifacts that have been inventoried, and (3) historic archeological sites in the archeological zone that have yet to be properly investigated.

The reconstructed structures presently consist of the second Commandant's House (Rotchev House), the chapel, palisades, and the two bastions. The official's barracks and kitchen and the original Commandant's House (Kuskov House) are scheduled for reconstruction in the near future.

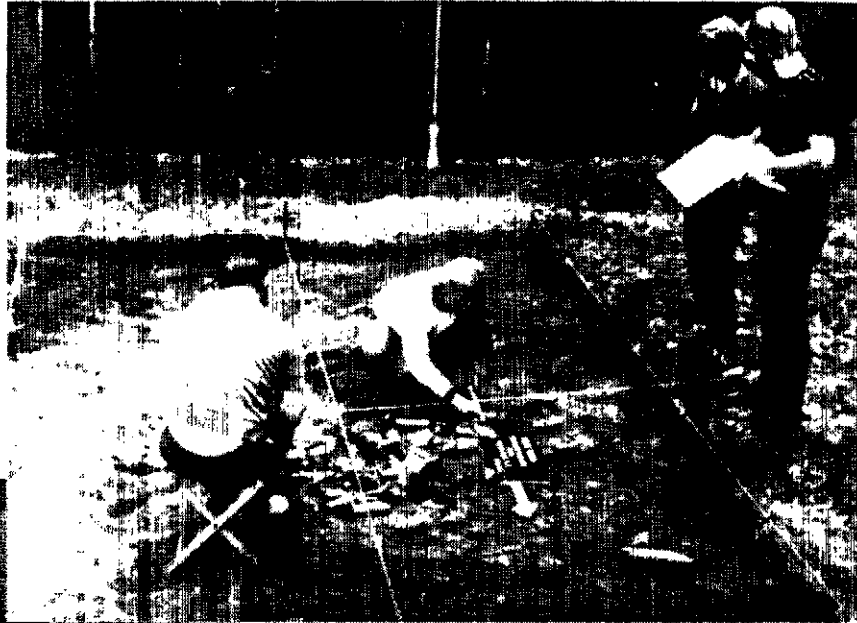
The mobile artifacts in our current inventory number 4,975. They include items ranging from ceramic chips and buttons to bottles and iron pieces, and are derived from a number of locations.

FIGURE 4

ARCHEOLOGY



FORT ROSS STATE HISTORIC PARK



The unexcavated historical/archeological sites in the archeological zone of Fort Ross and their prehistoric analogues form the major segment of cultural resources at Fort Ross State Historic Park. The archeological zone, which requires proper archeological research before any further reconstruction/interpretation can take place, includes the unexcavated area within Fort Ross palisades; the Aleut area to the south of the fort, which allegedly consisted of 14 plank houses; the area in Fort Ross Creek Valley, which was a major industrial area of the Russian community; the Russian village area outside the fort's walls; the windmill site(s) to the west of Fort Ross; and, the Russian road and cemetery site.

Right: Russian settler reburied with silver crucifix found in grave during relocation of highway



Natural Resources

Fort Ross State Historic Park contains an abundance of outstanding natural resources. Due to the delicate balance of these features, a clear understanding of each resource is essential to the general planning process. The following summation of these resources is subsequently compiled into a natural resource analysis. Descriptive maps incorporating this information provide the data base for this analysis.

VISUAL QUALITY

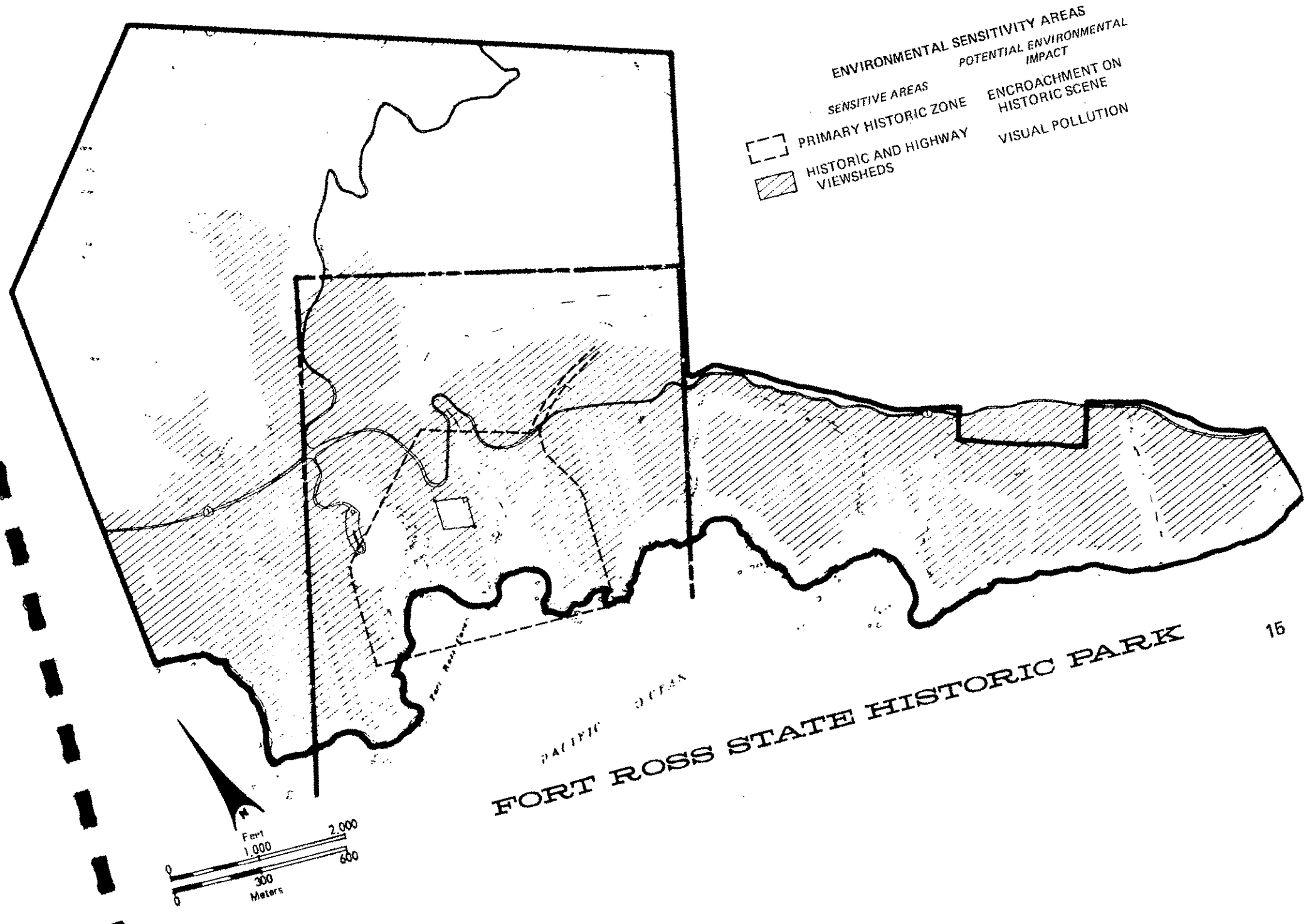
The scenic values along this historic coastline are superb. On a clear day there is a dramatic downcoast view of the coastal mountains plunging abruptly into the sea. From higher elevations within the project area the view can extend as far as Point Reyes Peninsula. Vistas to the north are somewhat more limited by topography. The rocky shoreline, the offshore rocks and reefs, and the crashing surf are a constant source of beauty and interest. The forest and grassland patterns in the landscape provide additional viewing interest.

Wide level terraces above precipitous cliffs are typical of the Fort Ross area. Fort Ross indicated by arrow.

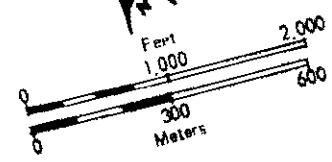


VISUAL QUALITY

FIGURE 5



PACIFIC OCEAN
FORT ROSS STATE HISTORIC PARK





VEGETATION

The diversity of vegetation at Fort Ross is quite remarkable. The vegetation types are dynamic, constantly changing towards a balance of species known as a "climax formation". Interruptions of this natural process have been caused to some extent by each of the cultures which have inhabited this area.

These disturbances have been both major and minor. Kashia Pomo Indian house pits, crop lines of the Russian agricultural fields, tree stumps seemingly scarred with axe cuts, and grasslands in which exotic plant species are predominant, represent disturbances of long ago that are still visible today. The only significant alteration by 20th century man has been the plantings of the Monterey cypress grove and eucalyptus trees west of the fort compound.

For the most part, however, the overall Fort Ross environment maintains a pristine appearance. The mosaic of native plants are associated with four major vegetation types — coastal strand, scrub, grassland, and coniferous forest.

The coastal strand generally occupies the sandy beaches and cliff areas along the coast. Vegetation here is sparse and prostrate due mainly to soil and wind conditions. The marine terrace is predominated by grasslands characterized by a wide variety of mostly exotic grass species. Presently sheep and cattle grazing keep these grasses cropped close to the ground.

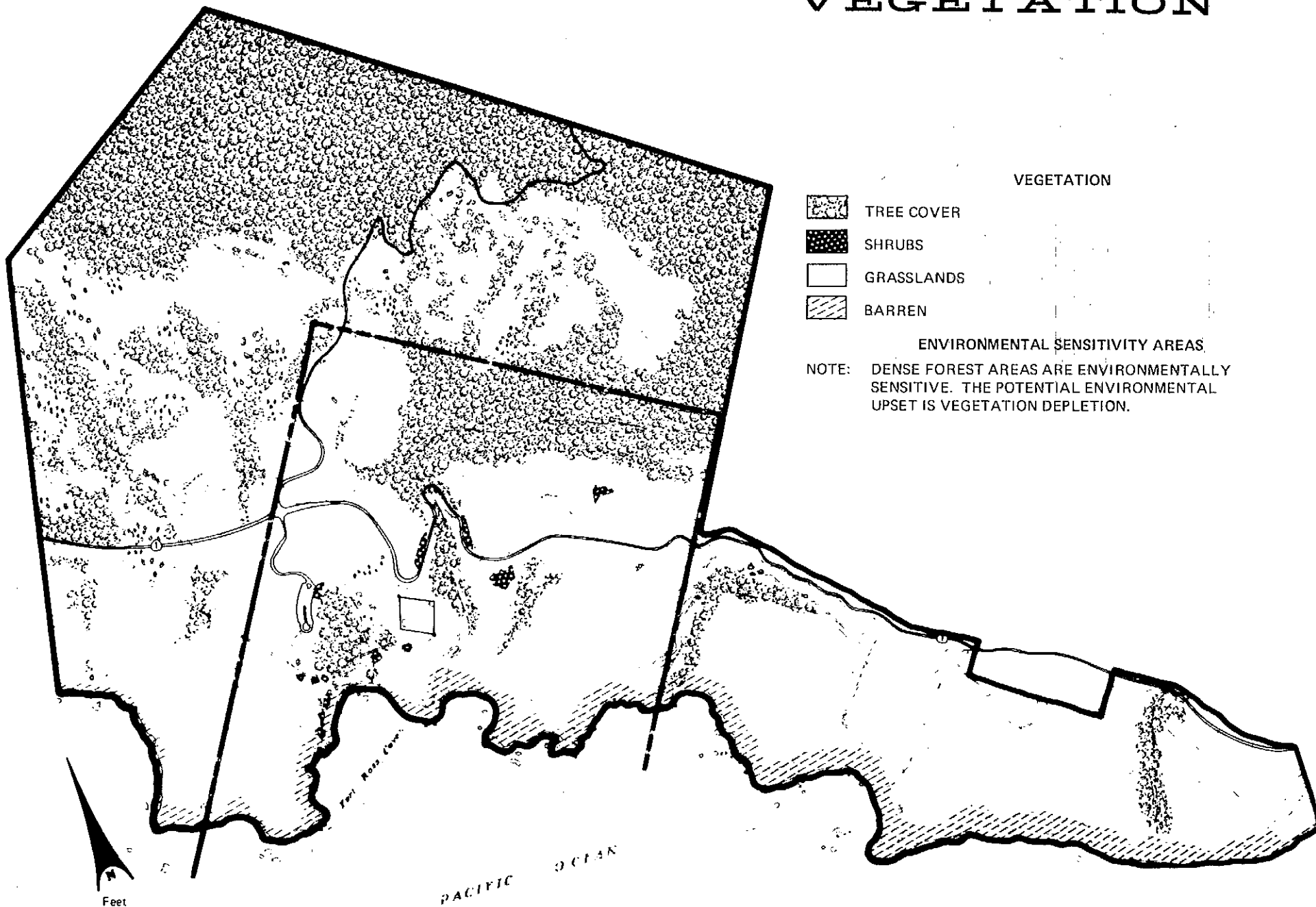
Many species of plants were introduced by the various inhabitants of Fort Ross. Some, such as this Russian Thistle, can become pests.

Unlike the windswept coastal plains, the coniferous forest inland provides an unusually calm microclimate amidst the charm of evergreen trees dominated by Redwoods, Douglas firs, and California laurel. The numbers and types of understory plant species vary dramatically within this vegetation type. Generally, a greater variety of plants thrive along Fort Ross Creek than in the hillside areas. Only the magnificent Coast Redwoods, with all their age and grandeur, seem to have endured unchanged while other landscape features have been greatly modified. An impressively large stand of California nutmegs is also found in this area situated along a portion of the San Andreas Fault zone.

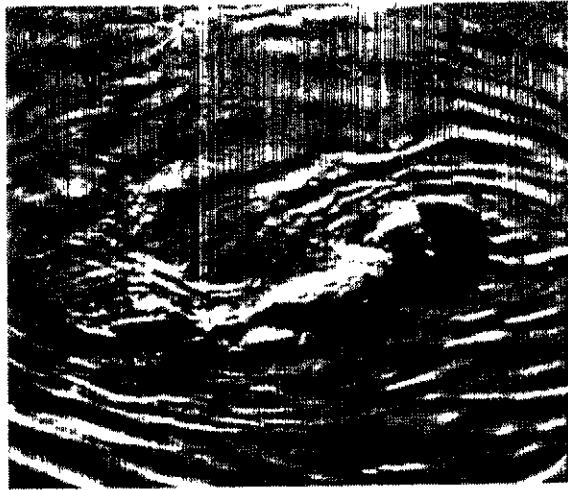
According to the records of the California Native Plant Society, two rare and endangered plant species occur at Fort Ross. They are *Chorizanthe valida*, a member of the buckwheat family, and *Dichondra donneliana*, widely familiar in cultivation as a lawn and groundcover, but rare and endangered in its native habitat.

The California golden poppy, *Eschscholtzia californica*, is also commonly seen in this area. This state wildflower carries the name of its finder, botanist Johann Eschscholtz, who, in the service of Russia, visited Fort Ross in 1824.

FIGURE 6
VEGETATION



FORT ROSS STATE HISTORIC PARK



The playful sea otter, valued for its fur, was a key element in the viability of the Ross Colony. Virtually eliminated more than 120 years ago by the efficient Aleut hunters, they still have not reclaimed their previous natural range.

The San Andreas Fault line and the resulting slide areas make maintenance of Highway One a difficult task



WILDLIFE

The wildlife at Fort Ross consists of a wide spectrum of land animals, birds, and marine life. Common land animals include the black-tailed deer, brush rabbit, ground squirrel, pocket gopher, broad-headed mole, and black-tailed hare. Marine life provides a popular attraction, as whales, sea lions, and harbor seals are frequently seen. The sea otter, which was virtually eliminated from local water by the Russian and Aleut hunters, is rarely seen along the Sonoma coast.

Species of birds are quite diverse. There are no rare or endangered species resident to the area, but the brown pelican, an endangered species, may be seen flying along the coast during the winter.

Major sport species in the ocean include red abalone, several species of rock fish, surfperch, cabezon, ling cod, and salmon.

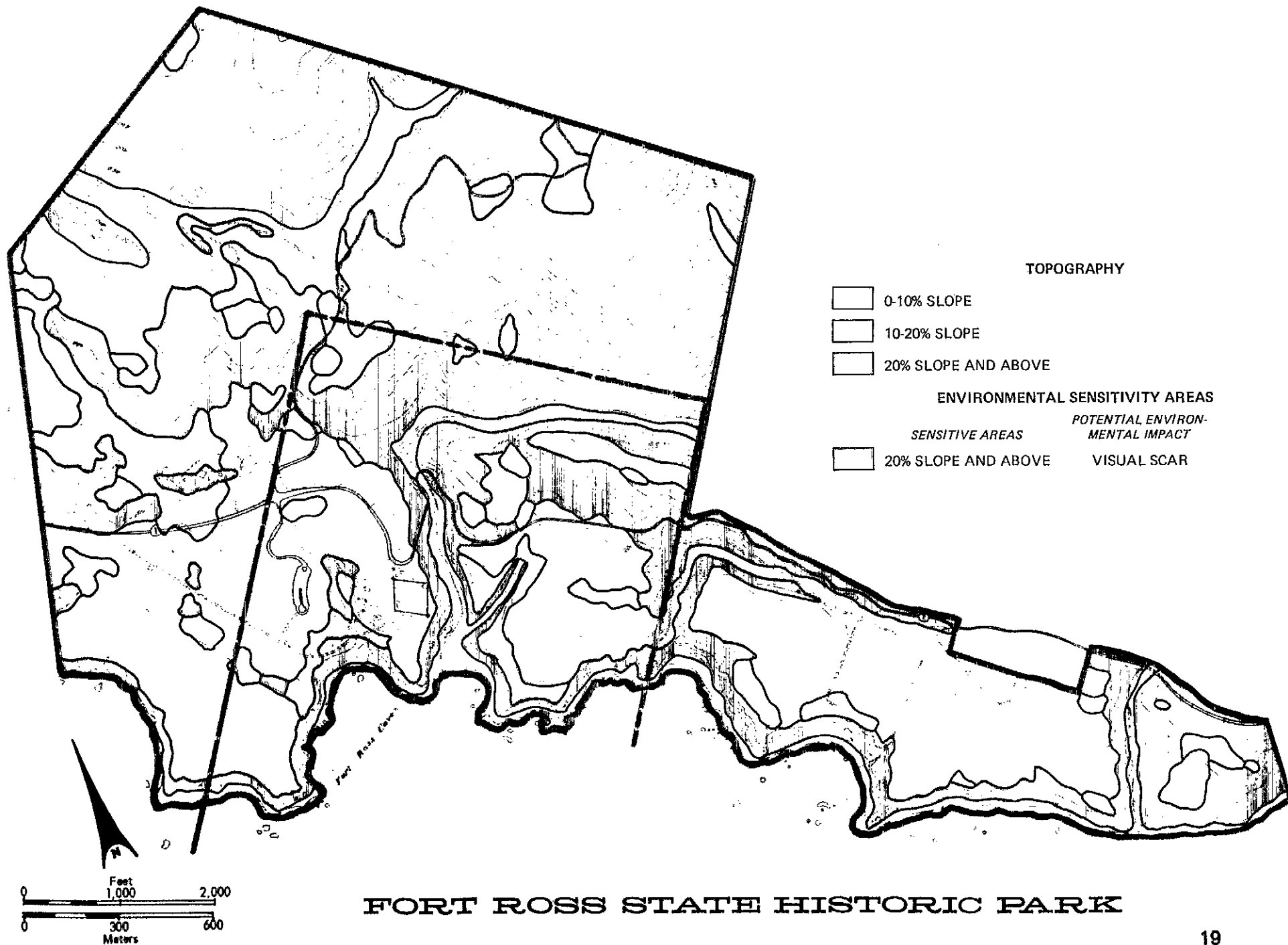
A list of commonly seen animals and birds appears in the appendix.

TOPOGRAPHY

The "lay of the land" at Fort Ross was a significant factor in the Russians' choosing this site for their colony. Wide level terraces where food crops could be planted to support the Alaskan operations, an abundant supply of water from mountain springs, a relatively safe harbor, a flat area at sea level where boat-building and other industry might take place, higher meadows back from the coastal influence where fruit orchards could be planted, a high bluff allowing construction of an impressive fortress to discourage enemies, a rugged mountain backdrop to discourage overland intrusion, all are factors of topography which made this site desirable to the Russian Company.

Today we look at the land form from a different perspective. At Fort Ross we must keep these broad sweeping views across coastal plains in a pristine state, uncluttered by modern development. We must look to other developable areas outside of this viewshed for development of camping or other necessary facilities.

TOPOGRAPHY AND HYDROLOGY



GEOLOGY

At Fort Ross today we can see the fascinating evidence of dynamic earth movement that has resulted in the formation of mountains, coastal plains and rugged coastline. The following is a brief description of this area's geology; for a more detailed report see Huffman, 1972.

The complex arrangements of geologic formations at Fort Ross have largely been the result of the movement of two geologic plates which rest upon a solid mantle of rock. These features are known as the Pacific Plate and North American Plate and are separated by the San Andreas Fault. Each exhibit distinctly different rock and soil types and have unique characteristics. On the east side of the San Andreas Fault is the Franciscan Formation, dominated by sandstone and shale, and commonly known for its extreme susceptibility to landslides and erosion. On the west side of the fault are tertiary marine sediments. When the Pacific Plate and the North American Plate collided, these sediments were pushed upward to form the coastal terrace, coastal slope, ridge top, and San Andreas Fault Zone.

The San Andreas Fault Zone poses a particularly significant factor in the planning and interpretive value of Fort Ross. The fault extends 650 miles between Shelter Cove in Humboldt County to the Salton Sea in southern California. In the Fort Ross area the

major portion of the fault zone is about 1000 feet wide and evidence still exists of the great earthquake in 1906.

During this quake, which rated 8.25 on the Richter scale, considerable ground shaking, landslides, and fault displacement of up to 12 feet occurred in the vicinity of Fort Ross. Evidence of the tremendous power of the rupture was seen in the collapse of the Russian chapel and the conspicuous signs of faulting in the Redwood forest and hillsides northeast of the fort.

The San Andreas Fault has been undergoing repeated horizontal movements for at least the past 25 million years. During that time offsets of about 200 miles have occurred for points on the west side of the fault, moving northwest with respect to those on the east side. Today, it is estimated that the annual rate of movement is about 2 inches.

One of the peculiarities of the fault segment between San Francisco and Shelter Cove is that the earthquake creep (slow discontinuous horizontal movements unaccompanied by earthquakes) has not been detected in this area. Furthermore, this area has been almost free of seismic activity since the 1906 disturbance. These facts may indicate that accumulating strain is not being released by minor disturbances here as it is elsewhere along the fault and the Fort Ross area is probably one of the most likely areas for a major earthquake.

**FIGURE 8
GEOLOGIC TIME SCALE**

RELATIVE GEOLOGIC TIME			ATOMIC TIME millions of years	TIME OF APPEARANCE OF DIFFERENT FORMS OF LIFE	BEDROCK AND SURFICIAL UNITS	
Era	Period	Epoch				
Age of Mammals Cenozoic	Quaternary	Holocene	5,000 to 20,000 years	Glaciers melted and climates became milder and more arid	Shallow landslides (Q _{1s}) Alluvium & Colluvium (Q _{ac}) Mod. deep landslides (Q _{1m}) Sand dunes (Q _d) Deep landslides (Q _{1d}) Slump block (Q _{sb}) Terrace deposits (Q _{td})	
		Pleistocene	2-3	Ice age, evolution of man	Terrace deposits (Q _{td})	
	Tertiary	Pliocene	12	Age of mammoths	Galloway Formation (T _{sm})	
		Miocene	26	Spread of anthropoid apes	Basalt (T _b)	
		Oligocene	37-38	Origin of more modern families of mammals, grazing animals		
		Eocene	53-54	Origin of many modern families of mammals, giant mammals	Strata of German Rancho (T _g)	
		Paleocene	65	Origin of most orders of mammals, early horses		
Age of Reptiles Mesozoic	Cretaceous	Late Early	136	Appearance of flowering plants; extinction of dinosaurs at end; appearance of a few modern orders and families of mammals.	Franciscan Assemblage Sandstone (KJfss)	
	Jurassic	Late Middle Early	190-195	Appearance of some modern genera of conifers; origin of mammals and birds; height of dinosaur evolution.		
	Triassic	Late Middle Early	225	Dominance of mammal-like reptiles.		
Age of Invertebrates Paleozoic	Permian	Late Early	280	Appearance of modern insect orders.		
	Carboniferous Systems	Pennsylvanian	Late Middle Early	345	Dominance of amphibians and of primitive tropical forests which formed coal; earliest reptiles.	
		Mississippian	Late Early	395	Earliest amphibians.	
	Devonian	Late Middle Early	430-440	Earliest seed plants; rise of bony fishes.		
	Silurian	Late Middle Early	500	Earliest land plants.		
	Ordovician	Late Middle Early	570	Earliest known vertebrates.		
	Cambrian	Late Middle Early	3,600+	Appearance of most phyla of invertebrates.		
Precambrian			3,600+	Origin of life; algae, worm burrows.		

Seismic Risk Evaluation

There are three major seismic hazards located at Fort Ross, including surface rupture along fault traces, ground shaking accompanying earthquake vibrations, and ground failure (landslides) caused by ground shaking. The risk of tsunami is also potentially hazardous. These hazards are shown on the map and include the following categories:

Serious Risk

Repeated offsets have occurred on many of these active breaks on the San Andreas Fault and, therefore, are the most likely locations of future surface ruptures.

Possible Serious Risk -- Probable Fault

Due to the proximity of these geologic conditions to the San Andreas Fault, this area poses a possible serious risk. Apparent recent ground ruptures appear continuous with probable recent fault breaks.

Possible Serious Risk -- Possible Fault

Fault is approximately located or inferred.

Possible Serious Risk

Possible fault with locations projected beneath surficial deposits or water.

Uncertain Risk

This area is bordered by the above possible and probable faults. Knowledge of where fault surface breakage occurs is uncertain. It is probable that future breakage on presently undetected faults will occur within this zone. The risk is probably greater nearer the recently active breaks.

Low Risk

Risk is low because of the absence of geologic evidence of branch faults of the San Andreas Fault or other faults in this area.

Ground Shaking Risk

This area contains unconsolidated and poorly consolidated alluvium and terrace deposits. These deposits will probably undergo more severe shaking than adjacent areas underlain by bedrock, shallow soil, and older, more consolidated alluvium and terrace deposits.

Boundary of San Andreas Fault Zone

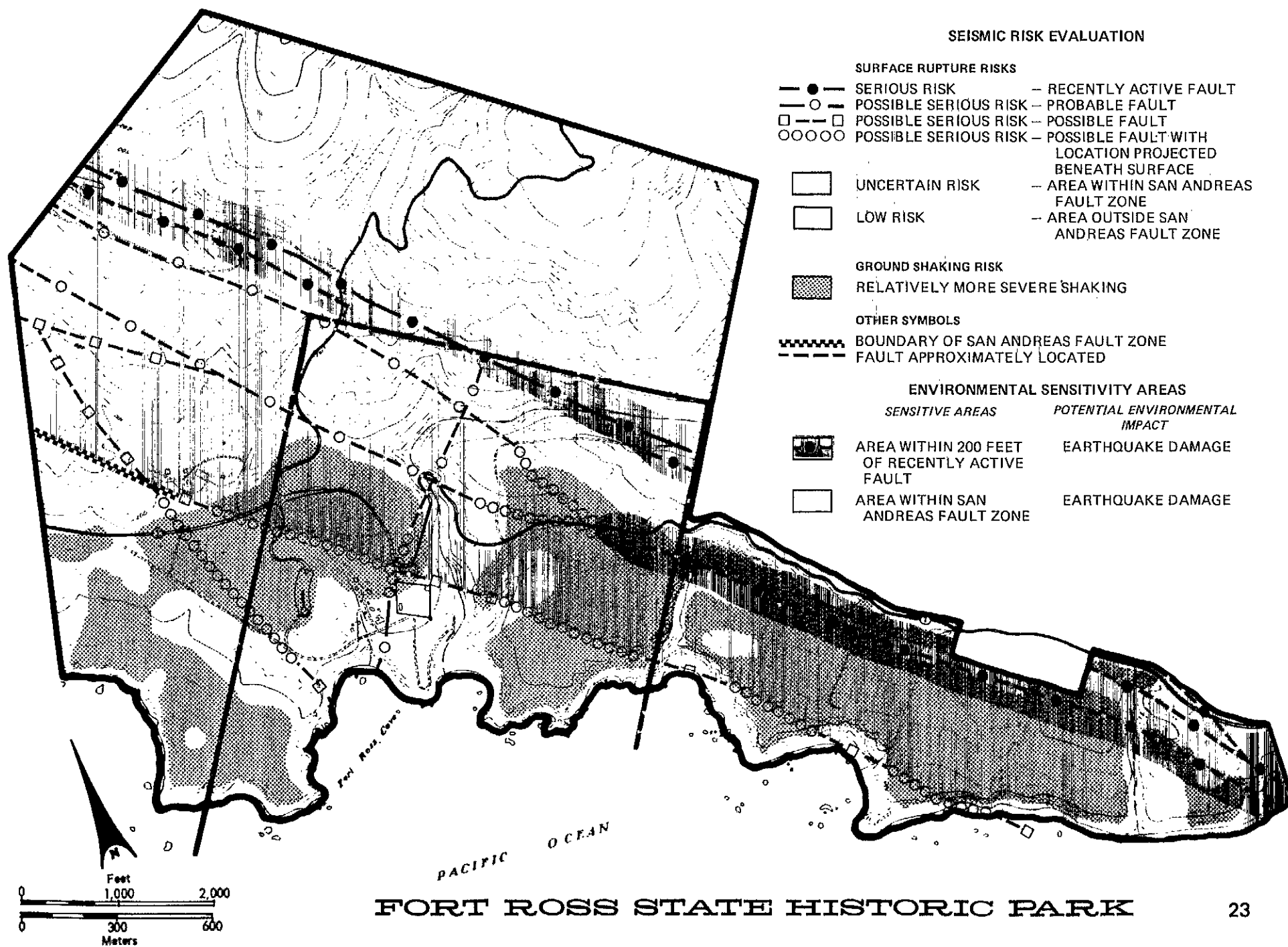
Zone is based upon the apparent topographic limits of the "rift" valley on the east and general geologic structure on the west. Very approximate and interpretive. In the 1906 earthquake, this zone of surface rupturing varied usually from a few feet up to 50 feet or more.

Deep Landslide Scarp

Steep rise in topography varying between one and many feet in height, indicating a land mass has moved downward away from it. Scarps are found within and at the head of deep landslides.

FIGURE 9

GEOLOGY—SEISMIC RISK



Slope Stability Evaluation

In addition to the geologic hazards presented by seismic risks there are certain areas within Fort Ross that are geologically unstable. These areas are found predominantly in the landslide areas of the sandstone unit along the coast and within the San Andreas Fault zone.

The following categories of geologic stability are shown on the map:

Unstable and Questionable Areas

Slumps and Slides on Coastal Cliffs (s)

All or portions of these deposits have undergone recent movement.

Recent Landslides (L)

These areas are shown on the bedrock geology map as shallow, moderately deep, and deep landslides. These are the least stable terrains in the project area.

Areas of Questionable Stability

Questionable Stability (Q)

Probably require only slight disturbance to initiate landsliding. Evidence is based on old landslides, soil creep areas, steep slopes in San Andreas Fault Zone, similar conditions to adjacent landslide areas, terrace deposits on moderate slopes, and similar areas.

Questionable Stability -- Uncertain Evidence ('Q')

Areas are highly interpretive with less substantial evidence than questionable stability (Q) areas.

Areas of Moderate Stability

Although the following areas are stable, over the course of time and 'normal' geologic processes, earth-

quake shaking, or disturbance by man, they may develop landslide conditions:

Areas of Steep Slopes (E)

Slopes are generally greater than 35% on a base of weak rocks or subject to geologic conditions conducive to instability.

Areas of Moderate and Gentle Slopes on Strong Rocks (c)

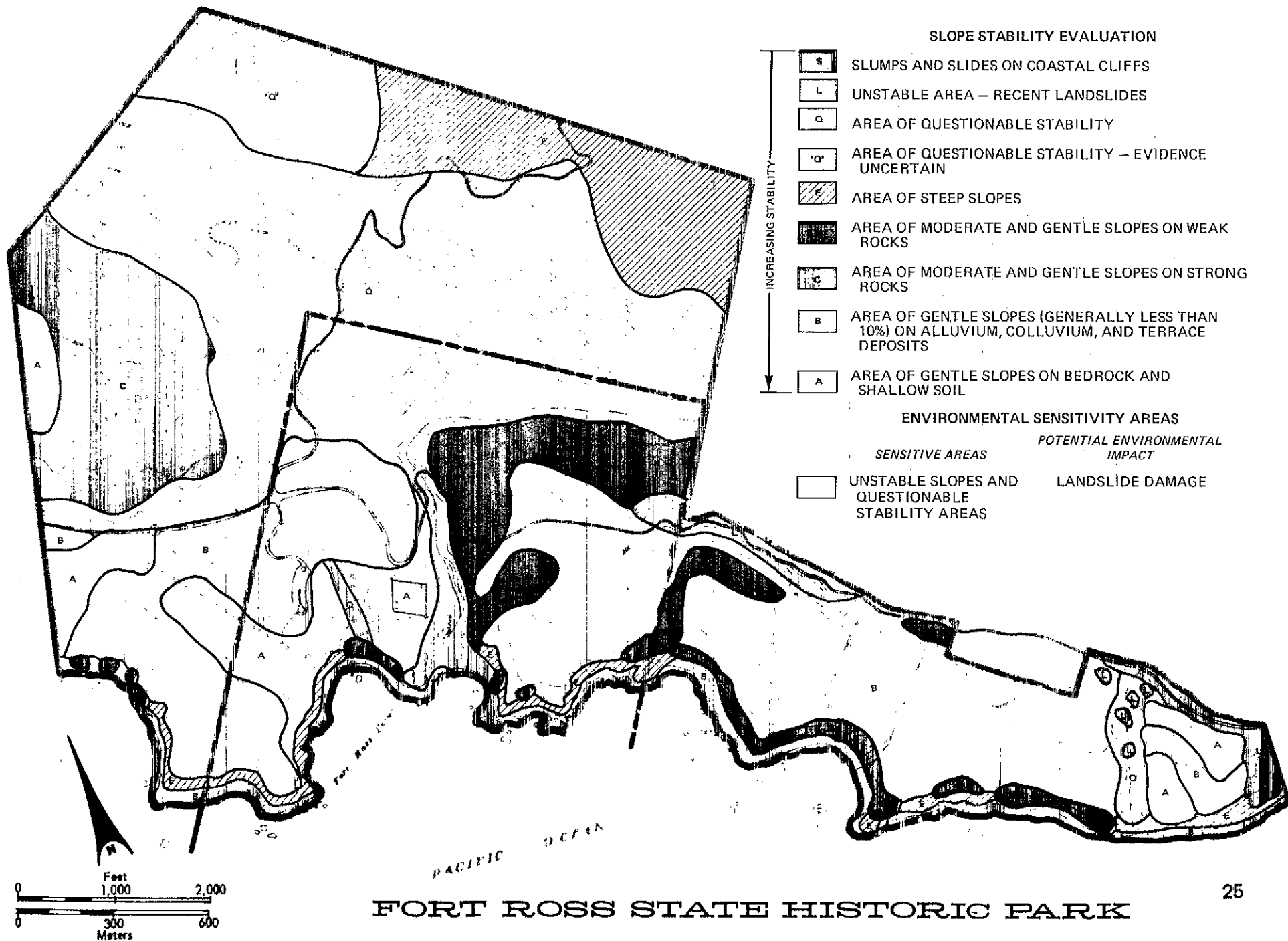
These areas contain minimal geologic conditions conducive to instability

Areas of Gentle Slopes (B)

Slopes are generally less than 10% on alluvium, colluvium, and terrace deposits.

Areas of Gentle Slopes on Bedrock and Shallow Soil (A)

GEOLOGY - SLOPE STABILITY



FORT ROSS STATE HISTORIC PARK



SOILS

The soils of Fort. Ross are divided into two general soil associations. A soil association is a pattern of soils which is typically associated with a particular area and normally consists of one or more major soil types.

The Kneeland-Roberville-Kinman Association is the soil association most prevalent on the coastal beaches, terraces, and uplands. These soils are basically moderate-to-well drained and lie on nearly level to steep loam and clay loams. Their formation was caused by the weathering of hard and soft sandstone and some shale. The solum layer (upper part of the soil profile to which plant and animal life is largely confined) varies from 25 to more than 60 inches.

The Hugo-Josephine-Laughlin Association is found on the ridge top area east of the San Andreas Fault. These soils are typically well-drained and are located on gently sloping to very steep gravelly loams and loams. Derivation of these soils was from weathered, fine-grained, hard sandstone and shale. The solum layer is underlain by fine-grained sandstone and shale at a depth of 25 to more than 60 inches.

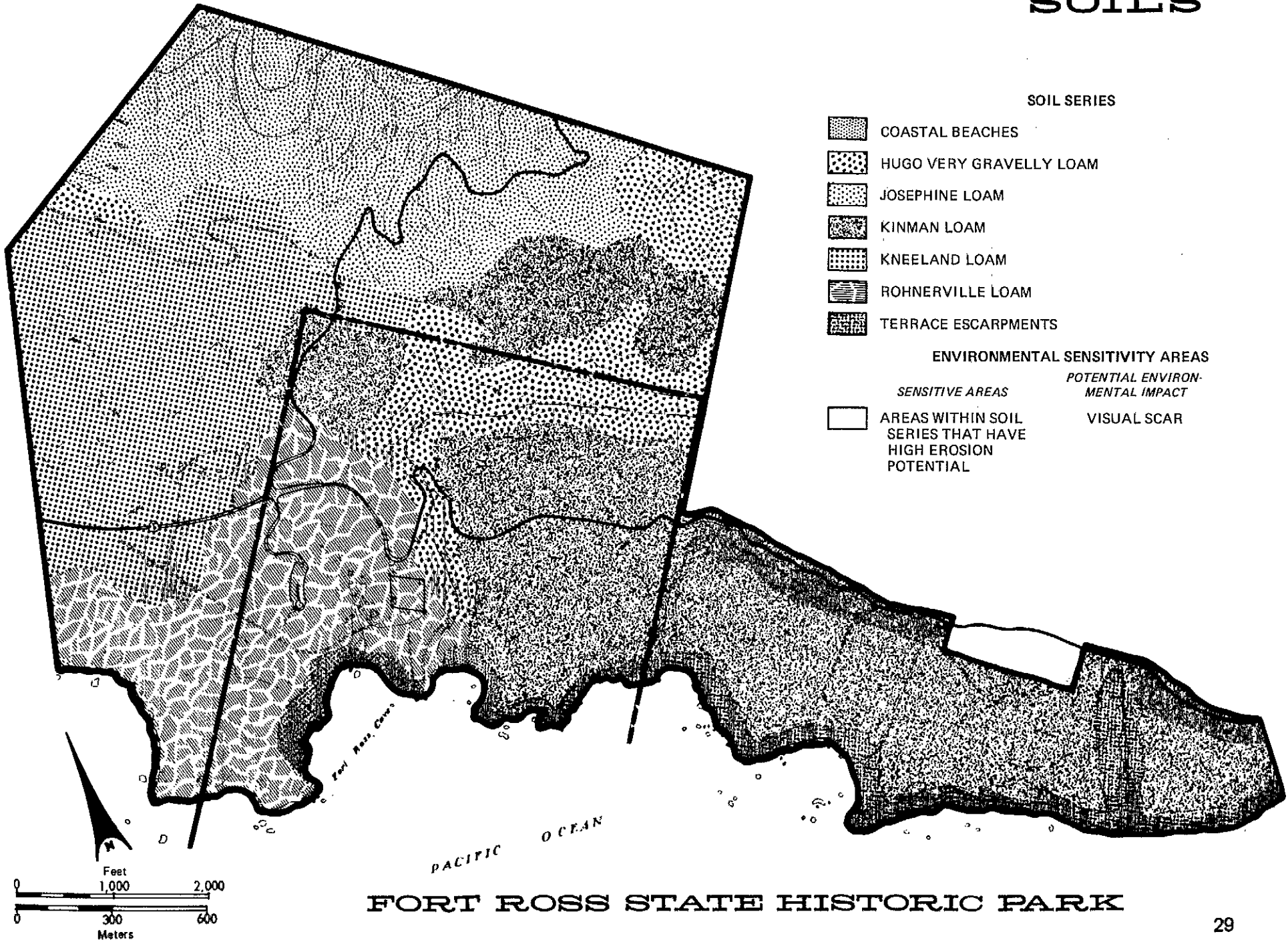
The soils map and accompanying descriptive chart distinguishes among the various characteristics of the soil types within the two associations.

**FIGURE 11
SOILS CHARACTERISTICS**

Mapping Unit	Solum Depth	Texture	Fertility and pH	Hazard of Erosion	Runoff	Drainage and Permeability	Available Water Capacity
ChA Coastal beaches				Very high			
HkG Hugo very gravelly loam 50-75% slopes	30"-60"	Very gravelly loam with gravelly sandy clay loam subsoil underlain by sandstone and shale	Moderate fertility	Very high	Very rapid	Well drained Moderate permeability	4"-8"
JoF Josephine loam 30-50% slopes	30"-60"	Loam on a clay loam subsoil underlain by sandstone and shale	Moderately high fertility, med. acidity	High	Rapid	Well drained, moderate permeability	5"-10"
JoG Josephine loam 50-75% slopes	30"-60"	Loam on a clay loam subsoil underlain by sandstone and shale	Moderately high fertility, med. acidity	Very high	Very rapid	Well drained, moderate permeability	4"-10"
KiD Kinman loam 5-15% slopes	40"-60"	Sandy loam to clay loam, gravelly in places, clay subsoil, on fine gravel, hard sedimentary rocks and sandstone	Medium acidity	Slight to moderate	Slow to medium	Mod. drainage Mod. slow permeability	6"-10"
KiE Kinman loam 15-30% slopes	40"-60"	Sandy loam to clay loam, gravelly in places, clay subsoil on fine grained hard sedimentary rocks and sandstone	Medium acidity	Moderately high	Medium to rapid	Mod. drainage Mod. slow permeability	6"-10"
KiF Kinman loam 30-50% slopes	30"-55"	Sandy loam to clay loam that is gravelly in places, clay subsoil on fine grained hard sedimentary rocks and sandstone	Mod. fertility, slight acidity - strong acidity	High	Rapid	Mod. drainage slow permeability	4.5"-8"
KnE Kneeland loam 15-30% slopes	25"-45"	Sandy loam to light clay loam	Mod. low fert., med. to strong acidity	Moderately high	Medium to rapid	Well drained, moderate permeability	4"-8"
KnF Kneeland loam 30-50% slopes	25"-40"	Sandy loam to light clay loam	Mod. low fert., med. to strong acidity	High	Rapid	Well drained, moderate permeability	4"-8"
RrC Rohnerville loam 0-9% slopes	30"-48"	Gravelly sandy loam to clay loam 16" thick, subsoil of sandy clay	Mod. fertility, Medium to strong acidity	Slight to moderate	Slow to medium	Mod. well drnd., mod. slow perm.	4.5"-8"
RrD Rohnerville loam 9-15% slopes	30"-40"	Sandy loam to clay loam, gravelly in places	Mod. low to mod. high fert. acid-to-neutral	Moderate	Medium	Mod. well drnd., mod. slow perm.	4.5"-7"
TeG Terrace escarpments 30-75% slopes	0"-10"	Sandstone and hard shale, less than 10" to rock with rock outcroppings		Very high			

FIGURE 12

SOILS



CLIMATE

The climate of Fort Ross is intimately related to all of the natural resources of this area. The wind and temperature patterns, precipitation rates, and sun exposures which make up the climate determine the success or failure of agricultural crops, mold the natural vegetative environment, modify land forms by erosion and determine the degree to which man must protect himself with his dwelling structures.

The climate is significantly influenced by the Pacific High (the dominant high pressure area of the northern Pacific Ocean), the inland low pressure areas, and the temperature of the ocean waters.

Temperatures throughout the year are related to the pattern of sea water temperatures and range between the 60's and low 70's during the summer days, with nights in the 50's. Due to the northern position of the Pacific High in the summer, prevailing winds are from the northwest, commonly 10 to 25 miles per hour, with gusts up to 50 to 60 miles per hour. These winds frequently make it uncomfortably chilly.

Along with the summer winds comes an almost daily migration of fog and low-lying clouds. Summer fog will generally lie along the coast in the morning and late afternoon, usually moving inland only as far as the eastern edge of the redwood forest. Precipitation during the summer is very low and largely a result of fog drip. Moisture is also provided by frequent nighttime drizzle.

Several significant changes appear with the coming of winter. The Pacific High moves to a southeasterly position, making the prevailing

winds southerly and heavily laden with moisture. Winter storms frequently batter the coastline with gale force winds which can severely damage vegetation and structures. In contrast to the summer season, seasonal rainfall from November to April averages about 35 inches. Air temperatures are relatively mild with days averaging in the high 50's and low 60's, and night temperatures dropping to the 40's. The freezing point is reached only occasionally.

The relationship that climate maintains with topography is vividly illustrated by variations in microclimate. One only needs to experience the change in mood when taking a few short steps from the force of a gusting wind into the serene shelter of a nearby ravine to appreciate the value of this kinship of resources.

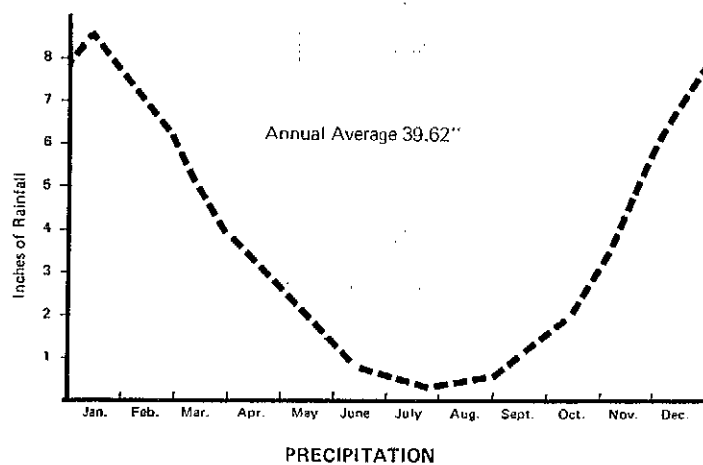
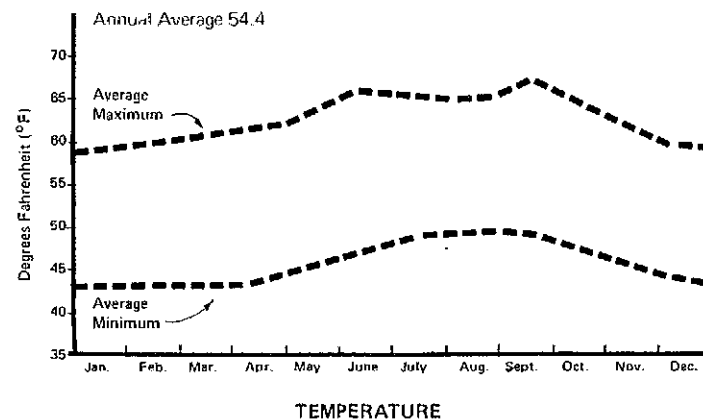
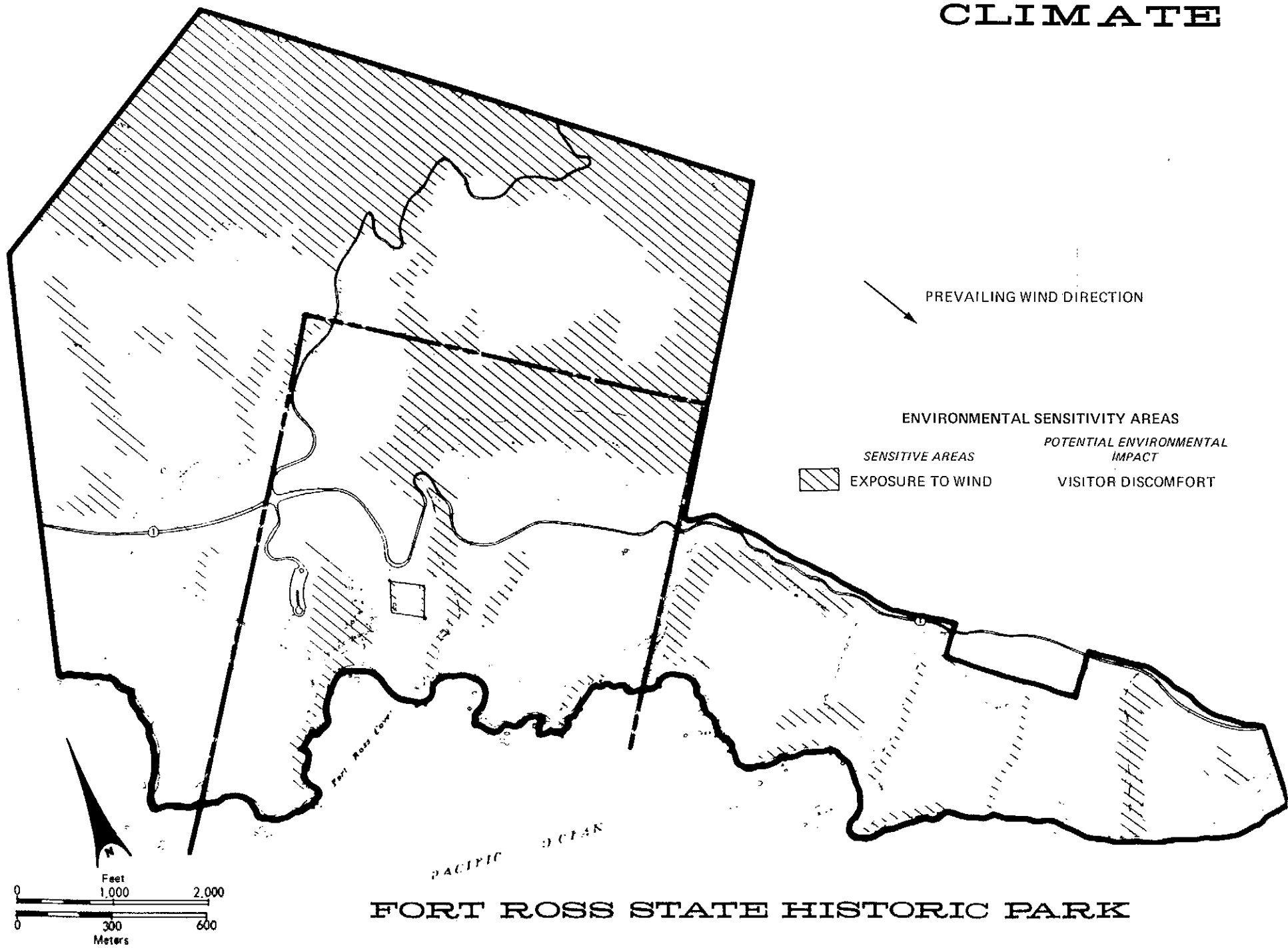


FIGURE 13
CLIMATE



FORT ROSS STATE HISTORIC PARK

TABLE 1
ENVIRONMENTAL SENSITIVITY AREAS

<i>Resource Map</i>	<i>Sensitive Area</i>	<i>Potential Environmental Impact</i>
Cultural Resources		
Archeology	Historic and Archeologic Sites	Encroachment on Historic Scene
Visual Quality	Primary Historic Zone	Encroachment on Historic Scene
Visual Quality	Historic and Highway Viewsheds	Visual Pollution
Natural Resources		
Geology- Seismic Risk	High Surface Rupture Risk	Earthquake Damage
Geology- Slope Stability	Unstable Slope	Landslide Damage
Vegetation	Dense Forest	Vegetation Depletion
Soils	High Erosion Potential	Visual Scar
Topography	20% Slope and Greater	Visual Scar
Topography	Poor Drainage Areas	Visual Scar
Topography	Water Features	Visual Scar
Climate	Exposure to Wind	Visitor Discomfort

The Resource Analysis investigates the significant features studied in the Resources Inventory and provides the basic rationale for the Resources Management Plan and General Development Plan. This evaluation predicts the impact of visitation and development upon the cultural and natural resources by determining where the most environmentally sensitive areas are located.

Environmentally sensitive areas are areas whose cultural and natural resources are vulnerable to adverse environmental impact from development. These areas are indicated on the resource maps on the preceding pages and summarized in Table 1 (right). In order to preserve the environmental quality of Fort Ross State Historic Park, the potentially adverse environmental impacts should be recognized and considered in planning for development.

Development, or land uses, that might result in adverse environmental impact are described in the Environmental Sensitivity Matrix (Figure 14, page 33). These land uses are related to the natural and cultural resources that could be damaged. Opportunities for development are indicated by those resource areas which exhibit low environmental sensitivity for a particular land use.

Several conclusions can be drawn from the Environmental Sensitivity Matrix. Certain resource characteristics are sensitive to any level of development whereas others are sensitive only to high degrees of development and heavy recreational use. Those resource areas that should remain undeveloped and on which visitor impact should be limited are, in order of significance:

1. Historic and Archeologic Sites
2. Historic and Highway Viewsheds
3. Areas Overlying San Andreas Fault

Opportunities for development exist in those areas of high environmental stability. The resource characteristics that seem to offer stability for the greatest number of land uses are:

1. 0-10% slope areas
2. low surface rupture risk areas
3. low landslide risk areas
4. low erosion potential areas

This process does not necessarily prohibit development of park facilities in those environmentally sensitive areas; it simply states that the potential resource loss is greater or that there is a higher risk involved. Through proper planning and design, certain environmental losses can be mitigated if the development benefits warrant the effort. Other environmental determinants, such as microclimatic conditions, are not used here as they would induce a level of subjectivity that is not appropriate for this stage of the planning process.

FIGURE 14
ENVIRONMENTAL SENSITIVITY MATRIX

FORT ROSS STATE HISTORIC PARK	RESOURCE CHARACTERISTICS																						
	CULTURAL					NATURAL																	
	Archeology			Visual Quality		Geology					Vegetation			Soils		Topography				Climate			
	Restoration or Reconstruction	Interpretive Value	Research Value	Visible from "Historic Viewshed"	Visible from Highway	High Surface Rupture Risk	Low Surface Rupture Risk	Landslide Areas	Stable Areas	Tsunami Risk	Grasslands	Open Forest	Dense Forest	High Erosion Potential	Low Erosion Potential	0-10% Slope	10-20% Slope	20% and Above Slope	Poor Drainage Areas	Water Features	Wind Exposure	Northerly Sun Exposure	Southerly Sun Exposure
Historic Structures	○	○	○	○	○	●	○	●	○	●	○	○	●		○	○		●	●				
Historic Sites – High Use Intensity	○	○	○	○	○	●	○	●	○	●	○	○			○	○		●	●				
Historic Sites – Low Use Intensity	○	○	○	○	○		○		○	●	○	○			○	○							
Parking Areas																							
– Large	●	●	●	●	●	●	○	●	○	●		○	●	●	○	○		●	●	●			
– Moderate	●	●	●	●	●	●	○	●	○	●		○	●	●	○	○		●	●	●			
– Small	●	●	●	●	●	●	○	●	○	●		○	●	●	○	○		●	●	●			
Personnel Housing	●	●	●	●	●	●	○	●	○	●		○	●	●	○	○		●	●	●			
Research Administration Center/Maintenance Yard	●	●	●	●	●	●	○	●	○	●		○	●	●	○	○		●	●	●			
Visitor Orientation Center	●	●	●	●	●	●	○	●	○	●		○	●	●	○	○		●	●	●	●	○	
Vehicular Service Roads	●	●	●	●	●		○		○	●		○	●	●	○	○	○	●	●	●			
Passive Recreation																							
• Camping, Trailer	●	●	●	●	●	●	○	●	○	●		○	●	●	○	○		●	●	●			○
• Camping, Group	●	●	●	●	●	●	○	●	○	●		○	●	●	○	○		●	●	●			○
• Camping, Tent	●	●	●	●	●	●	○	●	○	●		○	●	●	○	○		●	●	●			○
• Camping, Primitive	●	●	●	●	●					●		○	○				○	○	○	●			○
• Picnicking	○	○									○	○	○				○	○	○	●			○
• Driving for Pleasure	●	●	●			●	○	●	○	●	○	○	○		○	○		●	○				
• Walking for Pleasure/No Trails							○		○		○	○			○	○	○	○					
• Circulation, High Use Intensity Trails	○	○					○	●	○		○	○		●	○	○			●				
• Circulation, Low Use Intensity Trails	○	○					○		○		○	○			○	○							
• Sightseeing											○	○											
• Resting											○	○	○						●				○
Active Recreation																							
• Fishing	●	●														○				○			
• Scuba Diving	●	●														○		●		○			
• Boating	●	●														○		●		○			
• Swimming	●	●														○		●		○			
• Hunting	●	●										○				○		●					
• Games and Sports																○		●					
• Horseback Riding							○		○		○	○	●	●	○	○			●				
• Hiking							○		○						○	○							
Scenic Reserves																							
• Grazing	○	○	○	○	○		○		○		○		●	●	○	○							
• Agriculture							○		○				●	●	○	○			●				
• Forest Reserve	○	○	○	○	○				○			○	○	○	○	○				○			

● HIGH ENVIRONMENTAL SENSITIVITY AREA – These resource characteristics are susceptible to potential adverse environmental impact by the related land use.
○ LOW ENVIRONMENTAL SENSITIVITY AREA – These resource characteristics are highly compatible with related land use.

III RESOURCE MANAGEMENT PLAN



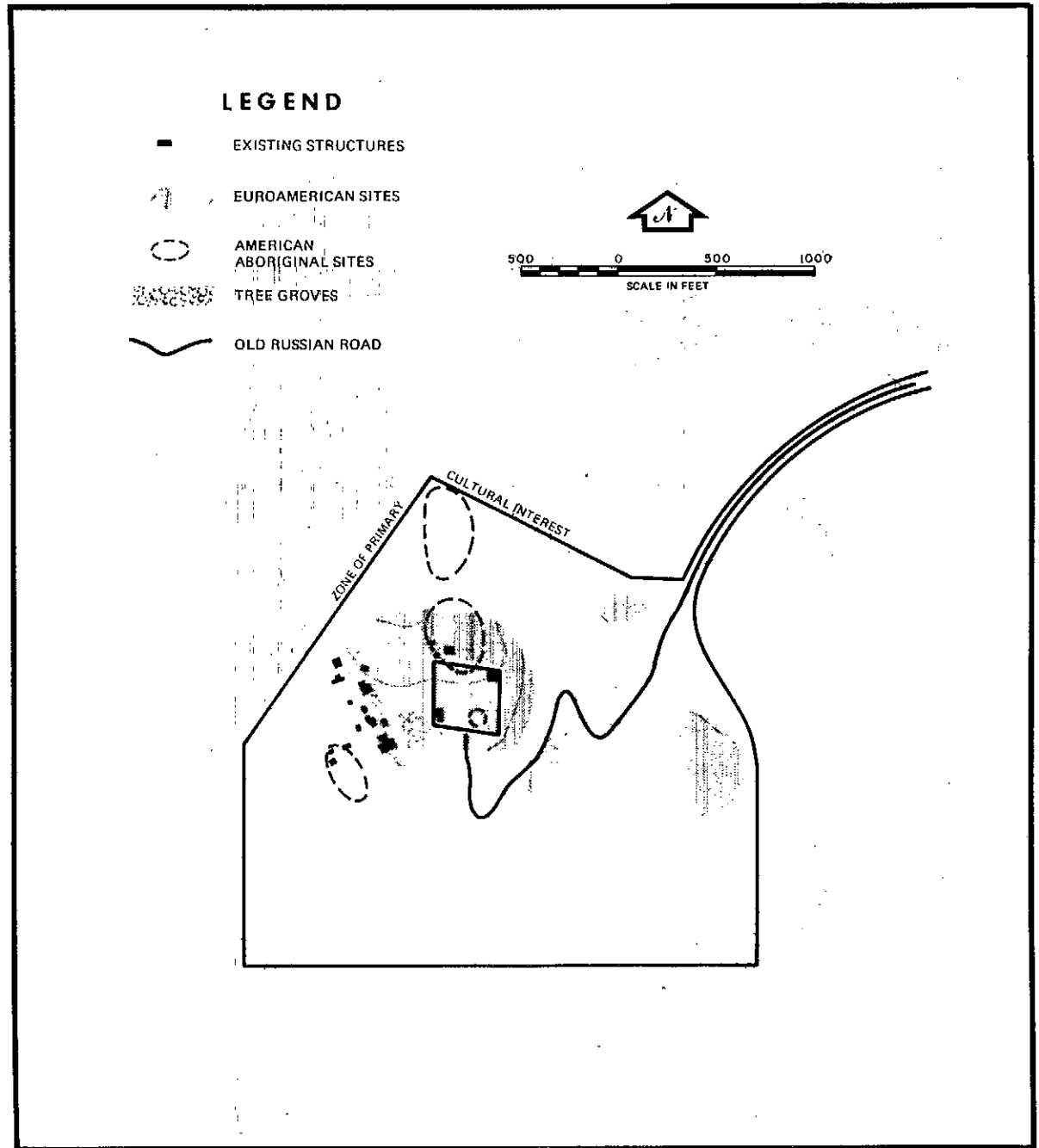
FIGURE 15 – ZONE OF PRIMARY CULTURAL INTEREST

III. RESOURCE MANAGEMENT PLAN

Introduction

Declaration of Purpose

Declaration of Management Policy



III. RESOURCE MANAGEMENT PLAN

Introduction

Fort Ross State Historic Park, one of the oldest units in the State Park System, is located on the Sonoma Coast, eleven miles northwest of Jenner, California, on State Highway 1. It was first incorporated into the Park System in 1906 after the fort and a few acres surrounding it were deeded to the state. The unit has slightly more than 358 acres at present, but the further acquisition of approximately 870 acres is in process. This pending acquisition plus additional land, containing historical sites and important natural values, is essential to preserve the integrity of the environment and maintain the quality of the historic Russian community's surroundings.

As the site of the Russian fur trading company's colony, Fort Ross was the primary Russian coastal development in Alta California. The community the Russians established here flourished from 1812 to 1841; its impact on California's history has not been adequately interpreted.

The cultural resources of Fort Ross and its related village communities of Russians, Aleuts who accompanied the Russians, and the indigenous Pomo Indians are both numerous and significant. With proper excavations and analyses of the archeological zone, and appropriate historiographic researches of the Russian community and related events, it will be possible to reconstruct this site. Such careful investigations will be the basis for developing an interpretive experience which will vividly present the total Russian environment, its physical structures, its lifestyle, and its natural setting.

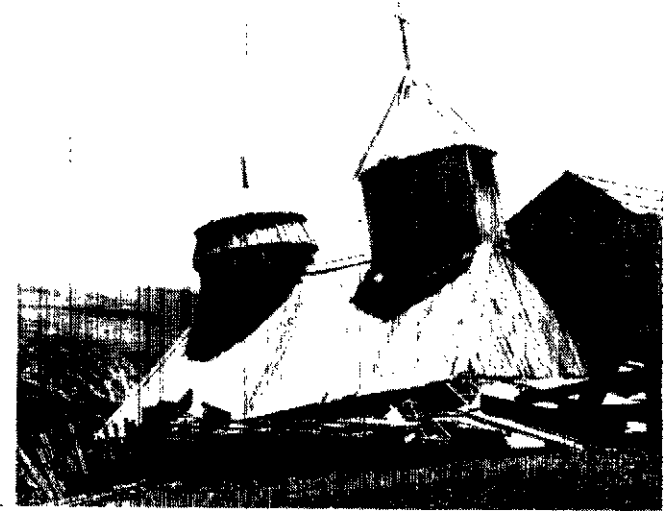
This unit and its proposed interpretation would satisfy partially one of the current theme deficiencies listed in the California History Plan. It will provide a readily observable contrast in lifestyles to the visitor and an awareness of the contributions made by these early settlers to the political and economic evolution of the state. Fort Ross is unique in the continental United States as being the only Russian settlement and in California as the only historic spot depicting the operation of a large fur trading company.

Although the prime role of this unit in the California State Park System is historical, the cultural resources are set in a scenically beautiful area with important natural values. It should be emphasized that additional property acquisition must occur in order to preserve the historic and natural environments from future development which may be inconsistent with the purposes of the historic park.

The cultural and natural resources are delineated in Part II - Resources Inventory and Analysis. See Appendix B for the recreational analysis.

There are two main management parameters that have had major influence in determining the use and management of the area. The first is the visitor impact on the sensitive historical zone and reconstructed buildings, and the second is the unit's existence in an earthquake zone.

Proper control and orientation of visitors through interpretation will assist in mitigating visitor impact. However, proper excavation, analysis, report formulation, and interpretation are ultimately necessary to save the cultural resources of the unit. The Park



The Fort Ross Chapel, an enduring symbol of the Russian occupation has undergone four reconstructions since it originally fell in the 1906 earthquake. The latest reconstruction in 1973, after it burned to the ground, is an accurate reproduction of the original.



System has many cases of destruction of cultural resources through visitor impact. In a recent example, three archeological sites were cleaned of surface artifacts shortly after the unit was opened to the public, while in the extensions of these same sites, located in a protected area outside the unit, there is still a profusion of surface artifacts. Adequate steps must be taken to protect any excavations and the reconstructions, flora, fauna, and geologic deposits as well.

Any construction in the area must take into consideration the earthquake hazard.

Declaration of Purpose

The primary purpose of Fort Ross State Historic Park is to enable modern Californians to know, enjoy, and understand the Russian adventure in California. The visitor's experience should center on his better comprehension of the role of Russia in California's exploration and settlement. The interpretive objective is to present Fort Ross' role in Russian fur trade imperialism and its effect on the local situation in terms of the Indians and Spanish/Mexicans, and ultimately, on modern society.

The primary theme of Fort Ross State Historic Park centers on Russian political and economic affairs during this era with special concern for relationships with Spain and Mexico. As background to this major theme, consideration will be given to Russian international affairs generally, colonization, territorial expansion, economic and material growth, and the development of agriculture. Russian religious affairs, and multi-ethnic relations will also be included. The secondary

themes will include the Indian history and the effect of European contact on their development up to recent times and will include the American Era, stressing the economic, agricultural, shipping, and ranching activities.

The period of time covered will range from the earliest known Pomo Indian history (several thousand years ago) to recent times, but the prime period will be the time of Russian occupation (1812 - 1841), especially the last eleven years of the colony when it was at its height. Due consideration will be given to the American Era in the flow of history, particularly the American ranching activities.

The primary cultural resources consist of the archeological remains of the Pomo Indians, the Russian people and Aleuts; and, the reconstructed buildings and walls. Secondary cultural resources are the American Era buildings and associated materials.

The Zone of Primary Cultural Interest is the area of Fort Ross itself and the village structures around the fort, as well as certain outlying locales. These outlying locations include the workshop area in the ravine to the east of the fort, the Russian cemetery, the rock pattern area in the grove of trees west of the fort, the warehouse area east of the ravine, and the remains of the Russian Road.

Although Fort Ross is an historical unit of the State Park System, it has tremendous natural and scenic value as well. In addition to the common species of plants and animals associated with the north coastal prairie, coastal sage scrub, redwood forest, and mixed evergreen forest biotic communities, two rare and endangered plant species (*Chorizanthe valida* and *Dichondra donnelliana*) are found

here, and the brown pelican, an endangered bird, may be seen flying along the coast during the winter. Many interesting geologic features can be observed in the park, including part of the San Andreas Fault zone. The fault has drastically changed the course of Fort Ross Creek and modified the growth configurations of trees along its course. These natural resources and the outstanding views of mountains, coast, and ocean will enhance the visitor's experience at the state historic unit; also, their preservation is essential to the primary historical purpose of the unit inasmuch as the historical values are to be presented in their original, natural setting to the fullest extent possible.

Declaration of Management Policy

Underlying the policy for the use and management of resources at Fort Ross State Historic Park is the primary concept that the visitor is to participate in the experience of an historically accurate environment relative to the Russian occupation. These resources that are not either Russian or directly related to the Russian occupation should not be maintained in the Zone of Primary Cultural Interest.

The preservation, restoration, and reconstruction of cultural resources are to be as follows:

I. Preservation

Only materials that relate to the prime period are to be preserved within the Zone of Primary Cultural Interest. At the present time there is nothing which calls for preservation in the technical sense. In the future

certain archeological features may be recovered for which stabilization may be indicated. Such artifactual patterns might be employed in an interpretive display to show visitors how a unit is developed from basic data.

2. Restoration

Except for a few wall logs in the second Commandant's house, there is no material indigenous to the prime period that could be restored.

3. Reconstruction

All of the Russian period structures should be reconstructed. An extensive historical/archeological study will be required to delineate all of these structures as historical records themselves are insufficient. Since the Pomo Indians and the Aleuts were integral parts of the Russian scene, representative samples of each group's village structures should be reconstructed.

Interpretation of the Russian Period should include the following:

1. Grazing should be continued in the ways and using the types of animals used by the Russians.
2. The Russian logging area should be displayed along with Russian logging and construction methods.
3. Russian agriculture should be portrayed — orchards, truck farming, dairying, etc. — using species and methods of the Russian period.
4. Russian roads and trails should be perpetuated, restored, and interpreted.

5. The atmosphere of the Russian settlement should be recaptured to the fullest extent possible.
6. At such time that the intrusions of the American Era interfere with the presentation of the Russian story, they should be removed or relocated.

In terms of the natural environment the general policy will be to preserve the natural beauty in a manner consistent with historical accuracy. There is a large tree grove west of Fort Ross which, for historical accuracy, should be removed. However, its scenic character and its function as a visual barrier between the Zone of Primary Cultural Interest and modern park developments that have

been proposed make retention of the grove advisable. A further consideration is that within the grove is a eucalyptus tree believed to be the largest in California. Thus, the grove, or at least this one tree, takes on importance in terms of California natural heritage. However, trees that are near the fort should be removed to improve the historical accuracy of the immediate environment. Any intrusive cultural materials that cannot be removed immediately should be screened temporarily by flora.

Any use of the natural resources for recreation purposes, or any developments to that end, must be completely separated from the historical environment and must not be allowed to degrade it in any way.



Historically important flora have been indicated in notes on the Russian period, e.g., the Commandant's wife's rose garden. In light of this, botanical studies are warranted so that representative gardens may be reconstructed to add to the authenticity of the environment.

Grazing by sheep and cattle has been a continuing part of Fort Ross' history and it now enhances the pastoral quality of the countryside. Studies should be made to determine the long and short-term effects of this grazing, including the numbers of animals, the breeds, seasonal limitations and other limiting factors.

From an operational standpoint, it is necessary that historical accuracy be maintained without contemporary artifacts intruding. To this end, park personnel within the Primary Zone of Cultural Interest during visiting hours should be dressed in historically accurate dress and doing historically accurate work. Contact between park personnel and visitors should be as though it were between Russian-American Company personnel and visitors to the Russian community. Maintenance requiring present-day equipment, except for emergencies, must be done solely during non-visitation hours. Furthermore, present residence structures must be removed, the highway must be relocated to the top of the ridge, and utility lines placed underground with the poles removed.

While modern facilities can be permitted outside the historic zone (e.g., modern restrooms, audiovisual equipment in the visitor center) only historically accurate facilities and services can be permitted within the historic zone. Various kinds of cottage industries

could be permitted in the historic zone. Fort Ross was a Russian community and part of the Russian-American Fur Company. Therefore, the sale of appropriate furs, metal artifacts, wood products, etc., would be possible. However, all proposals must be cleared professionally for historical accuracy.

No interpretive programs other than historically accurate presentations will be allowed within the historic zone, although such historically appropriate special events as Eastern Orthodox Church services may be allowed.

At the Visitor Orientation Center, outside the historic zone, present-day technology may be employed to present the story of Russians in Alta California and related historical periods such as the Call Ranch story of the American Era. It is suggested that a general overview of Russian Fur Company imperialism, its relationship to other fur companies (e.g., Hudon's Bay Company), and a comparison of the Russian influence in Alta California with that of the Spanish, Mexicans, etc., be interpreted.

The placement of the modern facilities outside the Zone of Primary Cultural Interest are to be determined by the following guidelines relative to geologic and seismic factors:

- a. The construction of permanent habitations or any major structures outside the historic zone should be located outside the area of recent traces of the San Andreas Fault.
- b. Development in areas of recently active landslides and areas of low or questionable stability within the San Andreas Fault zone is to be restricted to activities of low use intensity.

- c. The proposed construction of all permanent habitations or any major structure is to be accompanied by a detailed geologic investigation of the site considered.
- d. All construction is to be in compliance with the Alquist-Priolo Act of 1972.

These modern structures are not to be constructed in locations that permit them to be seen from the highway, if a reasonable alternative site can be utilized. In fact, no development or activity of any kind is to be permitted to encroach on the visual quality of the highway viewshed.

No studies are available to indicate any limitation in visitor number; however, 500 to 700 people at any one time in the historic zone (150 within the fort) is regarded as maximal in terms of visual impact relative to the historic setting. Visitors must be restricted to the developed parts of the historic zone in order to preserve the cultural resources. With proper land acquisition alternate activities such as camping could be permitted in the state historic unit if these activities are visually and spatially removed from the Zone of Primary Cultural Interest.

All activities must be in conformity with the Department's Resource Management Directives.

IV GENERAL DEVELOPMENT PLAN



Dehaut-Cilly lithograph of Fort Ross, 1829.

IV. GENERAL DEVELOPMENT PLAN

Introduction

Proposed Acquisition

Broad Acquisition Objectives

Existing Land Use

Proposed Development

Historic Interpretation

Interpretive Program

Interpretive Areas

Research Program

Recreation Use

Day-Use Areas

Overnight-Use Areas

Administrative and Interpretive Facilities

Scenic and Forest Reserves

Highway 1 Relocation

Operational Recommendations

Recommendations for Further Study

IV. GENERAL DEVELOPMENT PLAN

Introduction

Fort Ross State Historic Park has a wealth of cultural and natural features that give it the potential to supply a wide range of interpretive as well as recreational benefits. The primary thrust for development is, of course, in the interpretation of the historic area. Studies of statewide recreation needs, however, show that in the future it will be desirable to use a portion of the park for recreational activities other than interpretation. The purpose of the General Development Plan is to determine the areas most suitable, environmentally, for these activities. The development of these activities, projected over the next twenty years, will take place as the need arises.

The scope of the General Development Plan is to determine suitable areas for interpretation and areas for recreation development within the framework of the Resource Management Plan. Site requirements were developed to satisfy anticipated recreation needs. These requirements have been translated into a set of design prototypes to guide eventual development.

To assure that the best possible sites for park facilities are chosen in conformance with the expressed needs and design prototypes, three methods are used: (1) A series of studies, including a resources inventory, resources analysis, and resources management plan, provide the detailed information on the environment. This includes research on archeology, topography, vegetation, soils, wildlife, geology, climate, and visual quality. (2) Based on these studies land use plans are

formulated; (3) these plans are checked by detailed site observation to determine the suitability of the environment for particular land uses.

As Fort Ross' primary purpose is interpretation rather than recreation, development of day use and camping facilities will not be emphasized. Other nearby units such as Salt Point presently have plans for development that will meet some of the projected demand for day use and camping facilities.

A portion of the property in the process of acquisition has existing private camping use. After acquisition, these campsites should be upgraded to State Park standards and continue in use.

It may be necessary in the future to develop additional campsites at Fort Ross State Historic Park; however, there is no appropriate location within the present boundaries. Such development should not occur unless appropriate lands are acquired.

Proposed Acquisition

It is presently proposed that approximately 870 acres of land in two parcels be added to Fort Ross State Historic Park. Funds have been allocated for this acquisition and the Department of General Services is negotiating for the purchase of this property. The General Development Plan assumes this property will be added to the park.

The parcel of land north of Fort Ross proposed for acquisition contains 635 acres with 1700 feet of ocean frontage. Open grasslands occupy the coastal plain and a mixed conifer forest dominated by Bishop pine and Douglas fir covers the hillsides. Meadows intermingle

with these evergreen trees providing exceptionally good ocean views. The coastline is precipitous and has numerous rock projections off shore.

Sites of unique historical or natural value on this land include the Russian orchard, a probable Russian logging site, Indian sites, Russian roads and crop fields, a grove of rare California nutmeg trees, and the San Andreas Fault. Existing buildings include several barns of the American Period with road access to Highway 1. Evidence still exists of the lumbering operations that occurred in the hillsides years ago.

The present major land use is the grazing of sheep and cattle. Existing recreational activity is regulated by the lessor of the land who permits some abalone fishing but restricts overnight use.

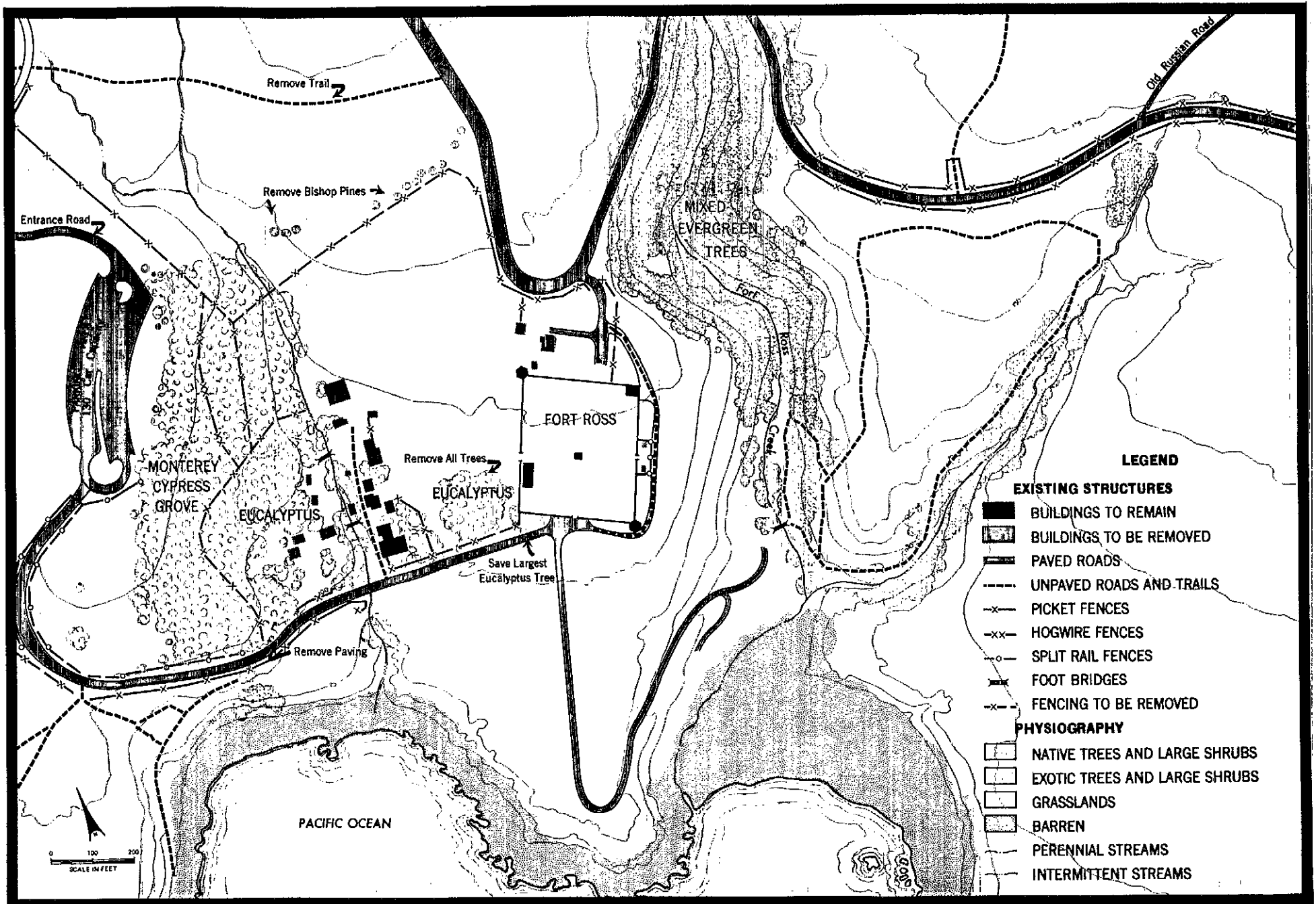
The southern parcel of land proposed for acquisition contains approximately 235 acres with 8100 feet of ocean frontage. This parcel lies entirely on the ocean side of Highway 1 and consists mainly of open grasslands with some coastal brush. Two wind-protected ravines of riparian and Redwood forest vegetation deeply cut the coastal terrace and offer a dramatic contrast to the windswept plains.

The grazing of sheep and cattle is the major land use for this proposed parcel also. Unlike the northern parcel, however, this land maintains a high degree of existing recreational use. The parked cars of abalone fishermen are generally scattered along the coastal bluffs. A private campground in the northern ravine provides approximately 15 units.

The primary purpose of these proposed acquisitions is to preserve the historic viewshed from the encroachment of modern devel-

FIGURE 16

EXISTING SITE DEVELOPMENT PRIMARY HISTORIC ZONE



opment, add additional cultural sites, and to maintain the quality of the pristine ocean view. All park development must be compatible with this primary purpose.

Broad Acquisition Objectives

Ultimate acquisition goals for the Fort Ross Unit should encompass the immediate viewshed to the east and north of the existing boundaries; particularly that portion seaward of Highway 1 north to Timber Cove. This coastal portion has excellent potential for development of day and overnight use virtually removed from the highway and historic viewsheds. (See map on page 4.)

Existing Land Use

The primary use of the historic area is interpretation of the story of the Russian occupation of 1812-1841 with supplemental storylines on the Indian, Aleut, and American cultures. The Russian period is presently represented by a stockade and two blockhouses, the Russian Chapel, the Rotchev House, and the Russian well.

Several Kashia Pomo Indian and Aleut sites have been identified but to date interpretation of these has been limited to panel displays within the Rotchev House.

Approximately 15 American Period buildings, constructed in the late nineteenth and early twentieth centuries, still stand in the area between the fort and the cypress grove. The G. W. Call House is used as a park ranger residence and artifact storage area. An adjacent structure functions as a docent's cottage. The remaining American structures serve pri-

marily as storage for artifacts which have not been inventoried.

Several modern structures encroach on the primary historic zone. A park residence and garage immediately to the east of the fort compound are located upon the Indian site of Mad-Shui-Nui. A park office (trailer) intrudes on the scene just west of the fort. Overhead telephone lines bisect the historic area.

Active recreational uses (abalone fishing, scuba diving, swimming and boating) occur mainly in the Fort Ross Cove area. Public vehicular access to the cove beach is allowed but parking is permitted only in the main parking lot west of the cypress grove. Picnicking occurs less commonly than the more

active recreational activities. A group camp area is periodically used as an archeologists' field camp. No public campsites presently exist at Fort Ross; however, private campsites on the property proposed for acquisition to the south get heavy use. Circulation patterns follow the sheep trails as no trail system has been developed.

Grazing of sheep is presently allowed within the park boundaries to maintain the pastoral atmosphere of the countryside. Grazing of both sheep and cattle occurs on the two land parcels proposed for acquisition. At this time no formal agreement exists for grazing on State property.



Visitor attendance at Fort Ross State Historic Park has doubled over the past ten years (150,000 in 1963-64 to 300,000 in 1972-73). Salt Point State Park, 8 miles north, and Sonoma Coast State Beach, 11 miles south, experienced a total of 1181 camping turn-aways in 1973.

Proposed Development

HISTORIC INTERPRETATION

Interpretative Program

Fort Ross and all it connotes has played an important role in the history and development of California. The basic goal of the interpretation of the Ross story will be an examination of California through the eyes and culture of the Russians who represented the eastern and southernmost extension of the Tsarist empire. The day-by-day experiences of the officials, promyshlenniks*, creoles, and native Indians provide a revealing picture of the cultural and economic influence upon California history. The enrichment

*Hunters and fur trappers (Fedorova 1975)

of the California culture through the language, customs, and industry of a multi-ethnic group of people from Alaska and Siberia is indeed a unique and significant chapter in California's development.

INTERPRETIVE THEMES

Russian coastal exploration and settlement relative to the development of Spanish and Mexican California is identified as a theme deficiency in the Hispanic Era of the California History Plan. Fort Ross, as the headquarters of this activity, was the prime Russian coastal development in Alta California, overseeing the outlying Russian farms and the Russian harbor at Bodega Bay. The cultural history of Fort Ross has been continuous since pre-Russian times, making the flow of history concept appropriate. This then involves secondary themes as well as the primary theme. Within the history flow, the prime period is that of the Russian occupation (1812-1841) for which the historic unit is statutorily named. 1830 to 1841 is believed to represent the period of maximum expression of the Russian occupation. The themes

to be developed at Fort Ross are listed below in order of decreasing priority:

PRIMARY THEME: *Russian Era*

1. Russian Colonization, Territorial Expansion, Economic and Material Growth
2. Russian Influence on California History; Russian Political and Religious Affairs
3. Multi-Ethnic Relations: Russian/Aleut/Spanish/Mexican/American
4. Russian Technology and Industry

SECONDARY THEMES:

5. Indian History: Ethnography of the Pomo Indians
 - European Contact
 - Recent Indian History
6. American Era: Economics and Material Growth
 - Transition Period Muniz, Benitz, Fairfax and Dixon
 - Agriculture
 - Water Transportation
 - Call Ranching Activities
7. Park Era: State Park Acquisition
 - Park Development
8. Natural History



Print by Voznesensky, ca. 1841

Development of Interpretive Themes:

1. *Russian Colonization.* The Russian-American Company was chartered by the Tsar to overtly exploit the fur industry in the north Pacific for trade to China. A covert rationale was the expansion of Russian influence into North America. Russia was engaged in much the same activity as the rest of the European and emerging New World countries in establishing chartered companies (i.e., the Hudson Bay Company and East Indian Company of Britain, and the American Fur Company of the United States) in territories not actively claimed by other nations. The international politics of the situation were complex and were an integral part of post-Napoleonic Europe.

2. *Russian Influence on California History:* Even though the official political and military doctrine was mutual mistrust and containment, the practical day-to-day interaction of the Russian, Californian, and American peoples was cordial. Trade, social interaction, and other benefits were more the rule than the exception. Ross was a major source of iron implements, armaments and powder, and other practical materials for the isolated Californios and transplanted Yankees. Many agricultural goods found their way through Ross to Sitka and the other Alaska settlements. The subtle threat of Russian expansion had a major influence on the activities of men such as General Vallejo, John Sutter and others, who in turn had a direct impact on the early foundation of the modern state of California.

3. *Multi-Ethnic Relations:* The colonial systems used by the Russians were very different from the Spanish/Mexican and American institutions of subjugation. The Russians, for instance, always paid the Indians a just wage for the work they did.

4. *Russian Technology and Industry:* Colony Ross was the site of a number of material efforts that had not occurred in California prior to the Russian settlement. Shipbuilding, extensive iron- and coppersmithing and foundries, intensive agricultural practices, wind and water mills for milling grain and sawing timber are only a few of the industries begun by the company. These efforts were in complete contrast to the normal pastoral lifestyle of the Californios to the south. The residue of all this activity was sold to John Sutter in 1841 and was the nucleus for his colonial enterprise that culminated in the discovery of gold in California.

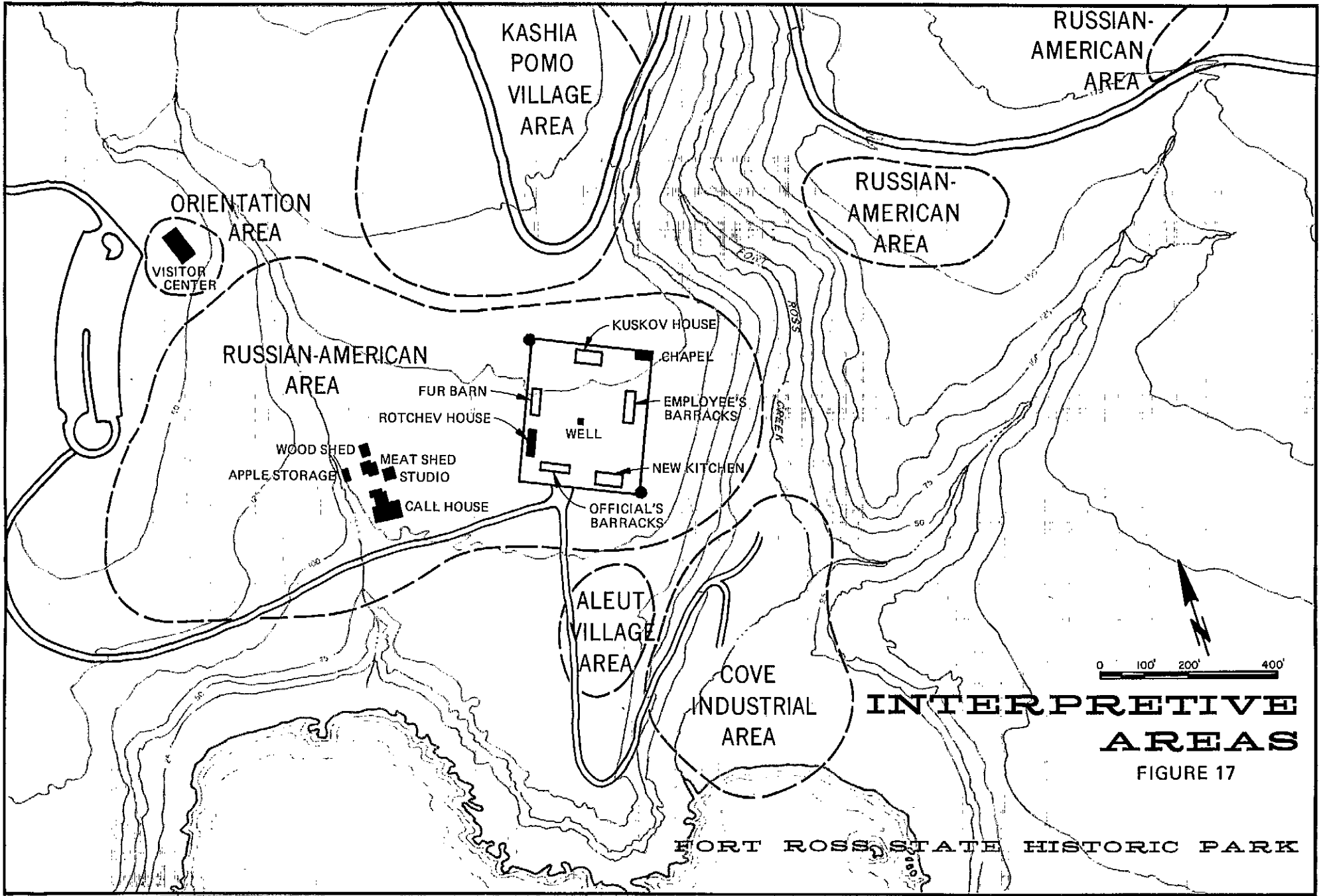
5. *Indian History:* The Kashia Pomo have a long prehistory on the Sonoma Coast. Numerous villages and camp sites are scattered along the coastal shelf and attest to a successful economic and social adaptation. This success continued throughout the period of contact with the European colonists with a particularly cordial relationship with the Russian fur hunters. The present-day Pomo Indians are actively involved in interaction with the American culture, but have succeeded in retaining much of their Indian religious and social heritage. They live at Kashia, about nine miles east of Fort Ross, and the men work mostly in lumbering. One of their

ancient traditions still followed is the Strawberry Festival held in early June.

6. *American Era:* The physical remains of the Russian colony continued to be useful in the agricultural efforts of subsequent inhabitants of the area. New industries were developed in the economic exploitation of the coastal region including lumbering and shipping. A frontier community, typical of the state's early history, was established at Ross. Later the G.W. Call family turned the area into a thriving ranch. Numerous industries unique to coastal communities tell a story of adaptation to climatic, geographic and economic factors.

7. *The State Park Era – Fort Ross as a Historical Park:* As one of the oldest units in the State Park System, the history of the development of Fort Ross is revealing of the early and sustained interest of the people of California in their own heritage. A long documented history of preservation, restoration, and interpretation are available to tell the story.

8. *Natural Environment:* The natural beauty of the Sonoma Coast is a result of complex factors. The flora and fauna, both wild and domestic, are an attraction in the unspoiled vista of the open headlands and rising hills. The almost overstated idyllic nature of the Fort Ross region is sometimes shattered by violent seismic activities of the San Andreas Fault that belie the bucolic scene. Vast and complex forces have split and shifted the landscape, yet the isolated scenic beauty remains.



**INTERPRETIVE
AREAS**
FIGURE 17

FORT ROSS STATE HISTORIC PARK

Interpretive Areas

There are six interpretive areas in Fort Ross State Historic Park. Each of these areas contains the various elements (existing or planned) that will provide the vehicle for interpreting the major themes.

The following outline lists interpretive facilities, story lines and methods for each interpretive area. The numerical order indicates rough priorities for development. However, many of the themes and story lines cut across area lines, so careful in-depth interpretive planning must precede any final development plans.

A comprehensive trail system will connect these interpretive areas with each other, with the orientation center, and with the outlying natural areas. A logo system depicting the Russian, Indian, and American cultures should be adopted and, where possible, the signs should be written in all three languages. The logos suggested are Russian – bell; Indian – Pomo basket; American – sheep.



Two types of interpretive trails will be provided, historical and natural. The historical trails will connect historical sites and interpret history, while the natural trails will lead to areas possessing exceptional environmental qualities.

Interpretive trails will receive the greatest use in the primary historic zone and will recognize all known sites of historic importance. Those sites which have not been archeologically researched and might possibly be endangered by visitation will be unmarked, and will be adequately protected.

The natural values of Fort Ross State Historic Park will be interpreted, primarily along the San Andreas Fault and in the Fort Ross Creek ravine south of Highway 1.

Trails are designed to serve two functions: (1) to guide visitors from one activity area to another and (2) to minimize the impact of visitation on the environment. Trails will be limited in the coastal plains and remote upland areas. These areas will receive such minimal traffic that people should be allowed to roam freely or follow the sheep trails.

As visitor use increases, it will be desirable to provide transportation assistance to those handicapped and elderly who wish to visit the fort compound but whose health could be endangered by the long walk. During the peak use periods a horse drawn vehicle of Russian period design could make regular rounds between the visitor center and the fort. During periods of low use a golf cart could be used.

Chapel bell, recast in 1973 using rubbings of the original (destroyed in the 1971 fire) to reconstruct a mold

INTERPRETIVE AREA I: ORIENTATION AREA

Facilities: Visitor Center (planned 1976/77 F.Y.)

Interpret: Thematic approach of park, basic historical background, scenic views.

Method: Multi-media, models, exhibits, graphics, docent programs and concessions.

INTERPRETIVE AREA II: RUSSIAN-AMERICAN AREA (Russian Compound and Vicinity)

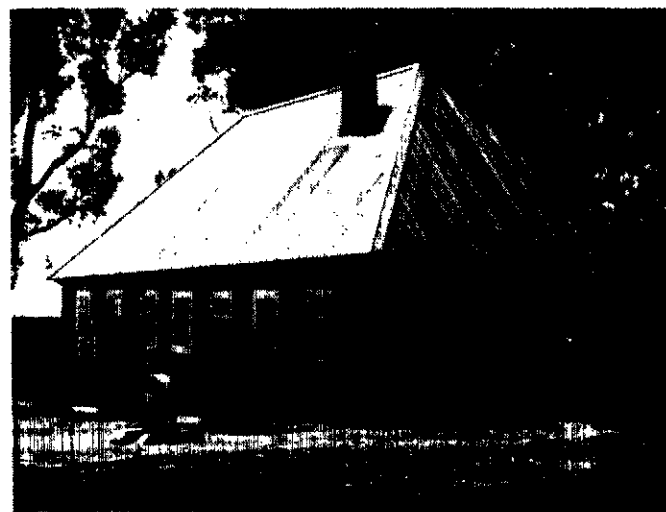
Facilities

Inside Fort

1. Stockade and blockhouses (2)*
2. Rotchev House (New Commandant's house)*
4. Officials' Barracks/Old Kitchen (planned 1976/77 F.Y.)
5. Kuskov House (planned 1977/78 F.Y.)
6. Fur Barn
7. Employees Barracks
8. New Kitchen
9. Well*

*Existing at present time

Rotchev House





Fort Ross during the Call ranch era.

Outside Fort

1. Gate Houses (2)
2. Windmills (2)
3. Bathhouses (2)
4. Bakery
5. Cattle and Sheep Sheds (3)
6. Rose Garden
7. Orchard*
8. Russian Road and Cemetery*
9. Jail and Pig Sty

Interpret: Russian lifestyle, company business and social structure, crafts and foods, technology and material culture.

Method: Living history, docent programs, house museums, exhibits and graphics, crafts demonstrations.

American Ranch Complex

Facilities: G. W. Call Residence*
Apple Drying Shed*
Outbuildings (2)*
Gardens*

Interpret: Coastal ranching, farm and industrial technology, lifestyles and special contributions.

Method: craft demonstration, exhibits and graphics, models, interpretive trails and docent programs.

INTERPRETIVE AREA III:
ALEUT VILLAGE AREA

Facilities: Fourteen to twenty-eight Aleut plank houses constructed in compact village scene — skin boats and drying racks.

Interpret: Alaskan aboriginal lifestyles, cultural adaptation, fur hunting and technology.

Method: Reconstruction, house museum, exhibits, graphics, crafts, artifact demonstration, docent programs, concessions.

INTERPRETIVE AREA IV:
FORT ROSS COVE INDUSTRIAL AREA

Facilities: Boathouses, ship carpenter shop, tannery, blacksmith shop, bathhouses, storage sheds.

Interpret: Industrial technology and products, historical activities of unique nature.

Method: Reconstruction, house museums, crafts and industrial displays, interpretive trails, docent programs.

INTERPRETIVE AREA V:
KASHIA POMO VILLAGE AREA

Facilities: Six to ten Pomo earthen and bark houses constructed in compact village scene — ceremonial Pomo houses.

Interpret: California aboriginal lifestyle, acculturation and adaptation, material culture, and modern survivals of Russian influences.

Method: Reconstruction, house museum, crafts, exhibits and graphics, docent programs and concessions.

INTERPRETIVE AREA VI:
NATURAL AREA

Facilities: Trails, signs, overlooks, points of interest.

Interpret: Geology, marine biology, flora and fauna, geology of coastal territories

Method: Interpretive trails, signs, trailside exhibits, docent programs.

Research Program

In-depth research, both archeological and historical, has been in progress at Fort Ross since 1970. Planned programs are scheduled for the 1975-76 and 1976-77 fiscal years. Because of the complex nature of the cultural resources, extensive research will be required to obtain general and specific information for individual development projects. Adequate architectural data is not presently available on most of the approximately 50 structures that existed inside and outside the fort compound. Chronological and social information is also lacking on most of the resources.

There is a need for a planned program of comprehensive research on all aspects of the cultural resources at the park.

Research Plan: A comprehensive research plan will be developed that will establish a multi-year schedule of stated goals and design elements. This plan will coordinate and aid in establishing the construction priorities and budgetary programs. Interpretive priorities and themes will be considered in conjunction with established research goals and proper conservation of the resources. It will be necessary to complete the research plan prior to any extensive construction planning or development programs.

Research Facility: A portion of the proposed park headquarters will be designated as a research facility. These facilities will not be generally open to the public, although opportunities for the interpretation of these activities will not be overlooked.

The facilities will require space for equipment storage, layout tables, washing racks,

office space, and general security and maintenance considerations. In addition, artifact storage racks, properly protected and organized, will be required to house the present archeological and historical collections and future additions.

Interpreting the Research: A coordinated program of interpreting and viewing the field archeology is of considerable importance. A multi-year program of archeological research provides the visitor with an opportunity to see the archeologists at work in the "diggings," their procedures and equipment. Interpretation of this activity can generate interest and respect and even shared enthusiasm. Signing, graphics, and guided tours of such research will add a significant aspect to the overall interpretation of the park.

RECREATION USE

Day Use Areas

FORT ROSS COVE

The Fort Ross Cove beach attracts the greatest recreational day use. The natural character of this cove must be protected. It plays an extremely significant role in the interpretation of the Russian story as it contained the boat works and loading point. Its integrity should not be diminished by incompatible recreational development.

Recreational uses should not be allowed to continue in the cove if there is an encroachment on the historic scene. Public vehicle access and parking should not be permitted once the present access road is removed for the following reasons:



1. It would encroach upon the scene and interpretation of the historic area. It would be in direct conflict with the stated purpose of the park.
2. Operational conflicts would arise between historical interpretation and recreational activity as visitation increases.

It will be necessary to provide visitors primarily interested in pursuing recreational activities in the cove with an alternate trail access to it, one which bypasses the interpretive facilities.

PICNIC AREAS

Picnickers should be encouraged to utilize the appropriate historic areas, thereby contributing to the vitality of the historic scene. Food concessions, compatible with the Russian culture at Fort Ross, should be provided within the fort compound, contributing to the sense of living history.

For visitors who prefer a more secluded setting, a 10-unit picnic area with parking for 15 cars will be provided near the assumed Russian logging site. This wind protected area is within the proposed northerly acquisition parcel among a charming grove of mature Redwoods.

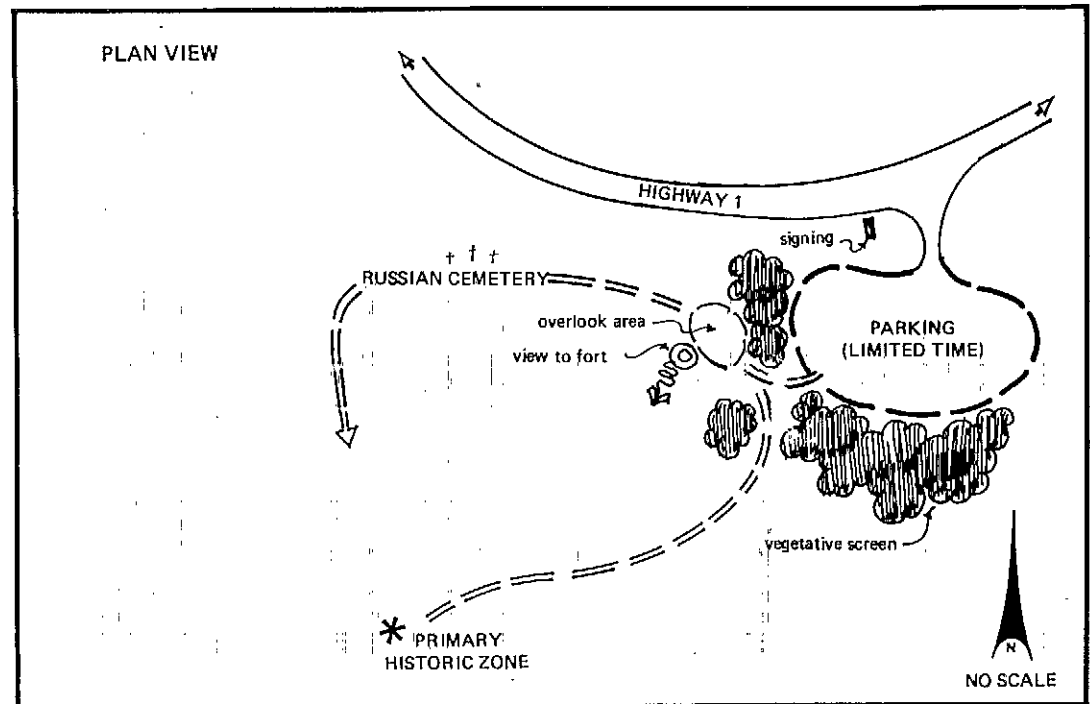
Portions of the Russian orchard provide magnificent views of the coast and would serve well as informal picnic areas. The terrain within this area of the San Andreas Fault illustrates such variations as sag ponds and slumping characteristics.

PARKING FACILITIES

The existing 130 car parking facility northwest of the Cypress Grove is considered to be adequate for the next several years. At such time as a need for additional parking is demonstrated, this parking can be doubled by expansion into the adjacent area marked "Future Parking" on the General Development Plan.

Parking is presently allowed by the lessor on the proposed acquisition parcel for visitors utilizing the beaches south of the fort, but vehicles parked along the coastal bluffs are incompatible with the development plan of the park. Visitors to these beaches should use

FIGURE 18



DESIGN PROTOTYPE: SCENIC OVERLOOK AREA

DESIGN CRITERIA

- ACCOMMODATE 5-10 CARS
- 0-10% SLOPE
- CLEAR VISIBILITY FROM HIGHWAY 1
- PROXIMITY TO HIGHWAY 1
- LOCATE IN LOW-MODERATE "ENVIRONMENTAL SENSITIVITY AREA"
- VIEW TO FORT AND PRIMARY HISTORIC ZONE
- SCREEN CARS FROM PRIMARY HISTORIC ZONE
- SEPARATION FROM RUSSIAN CEMETERY

NOTE: "●" INDICATES THAT SITE SATISFIES DESIGN CRITERIA

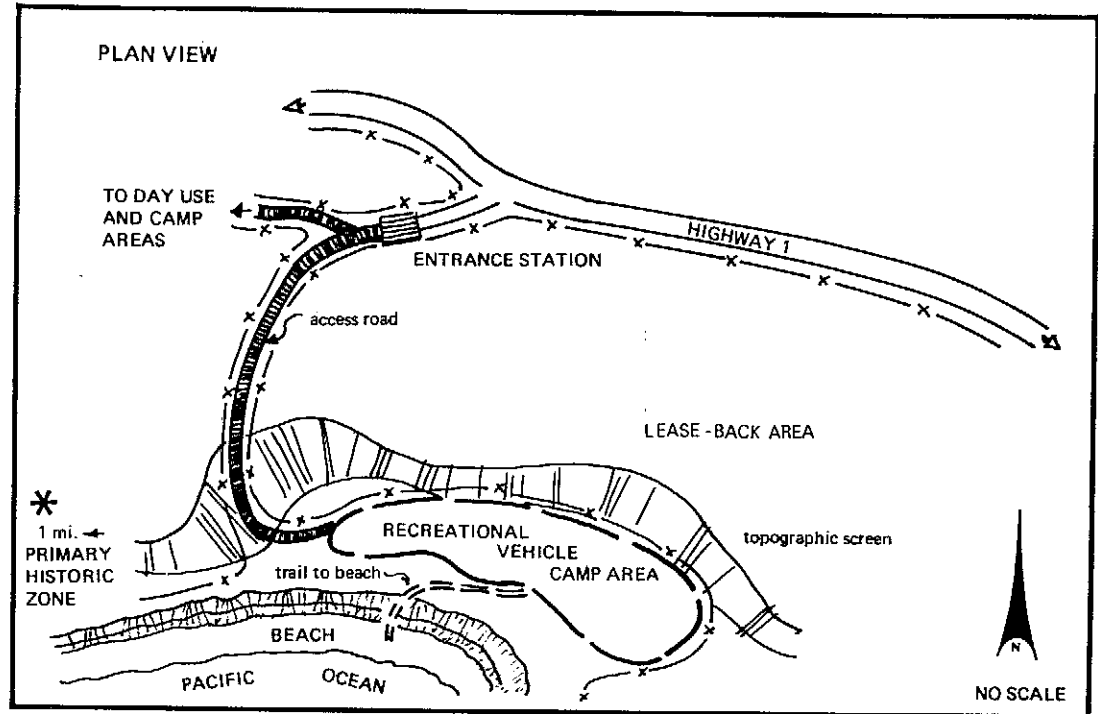
the parking area adjacent to the trailer camp area shown on the land use plan. This parking area lies in a topographically depressed area and is visually isolated from the primary historic zone and Highway 1. Overflow parking space should be provided for days of unusually high visitation. Trails would make the beach easily accessible.

The northernmost ravine in the proposed southern acquisition parcel presently is used for day use parking, primarily by abalone fishermen. This parking area should be retained and developed for a 20-car capacity.

SCENIC OVERLOOKS

Two scenic overlooks are planned. The overlook adjacent to the Russian cemetery would be visually screened from the fort area by the existing variation in land forms and native shrubs. A short trail from this overlook would offer an impressive view of the fort and direct access to the Russian cemetery. Another overlook, higher on the mountainside along Fort Ross Road, will offer magnificent views of the coastline below with minimal alteration of the existing environment. This latter area is ideal for interpretation of the geologic phenomena of the nearby San Andreas Fault.

FIGURE 19



DESIGN PROTOTYPE: RECREATIONAL VEHICLE CAMP AREA

DESIGN CRITERIA

- ACCOMMODATE 35 UNITS @ 12-15 UNITS/ACRE
- LOCATE IN LOW-MODERATE "ENVIRONMENTAL SENSITIVITY AREA"
- PROVIDE TRAIL ACCESS TO BEACH
- 0-10% SLOPE
- PROTECTION FROM WIND
- VISUALLY ISOLATED FROM PRIMARY HISTORIC ZONE
- VISUALLY ISOLATED FROM HIGHWAY 1
- SEPARATION FROM DAY USE AREAS
- ACCESS TO HIGHWAY 1
- PROVIDE ENTRANCE STATION
- SEPARATION FROM LEASE BACK AREAS

NOTE: "●" INDICATES THAT SITE SATISFIES DESIGN CRITERIA

Overnight Use Areas

There is a growing need for overnight facilities along this stretch of the Sonoma County Coast. Several opportunities exist for the development of camping areas at Fort Ross without encroachment on the historic scene or serious impact on the natural environment.

RAVINE SITE

The existing camping area in the ravine of the cove immediately south of Fort Ross Cove contains adequate space for 20 camp units. This ravine is well protected from the coastal winds and offers a variety of vegetation, including redwoods and open grasslands. Trailers cannot be accommodated in the ravine site, due to the limited space.

COASTAL TERRACE SITE

The lessor frequently allows some public use of this parcel which is located one mile south of the fort. It has potential for development of 35 trailer camping units, is visually screened from the primary historic zone by highway and natural land forms, and offers access to the beach below. This area will accommodate the abalone fishermen and is near the beach area that is currently receiving the greatest use.

DESIGN PROTOTYPE: CAMP AREAS

DESIGN CRITERIA

- ACCOMMODATE 20-30 UNITS @ 4.6 UNITS/ACRE
- 0-10% SLOPE
- LOCATE IN LOW-MODERATE "ENVIRONMENTAL SENSITIVITY AREA"
- PROTECTION FROM PREVAILING WIND
- VARIETY OF SUN EXPOSURE AND TREE COVER
- VISUALLY ISOLATED FROM PRIMARY HISTORIC ZONE
- VISUALLY ISOLATED FROM HIGHWAY 1
- ENTRANCE CLEARLY DESIGNATED
- ENTRANCE STATION REQUIRED
- AVAILABILITY OF UTILITIES
- SEPARATION FROM INCOMPATIBLE ACTIVITIES (GRAZING, ETC.)
- ACCESS TO PARK TRAIL SYSTEM

NOTE: "●" INDICATES THAT SITE SATISFIES DESIGN CRITERIA

FIGURE 20

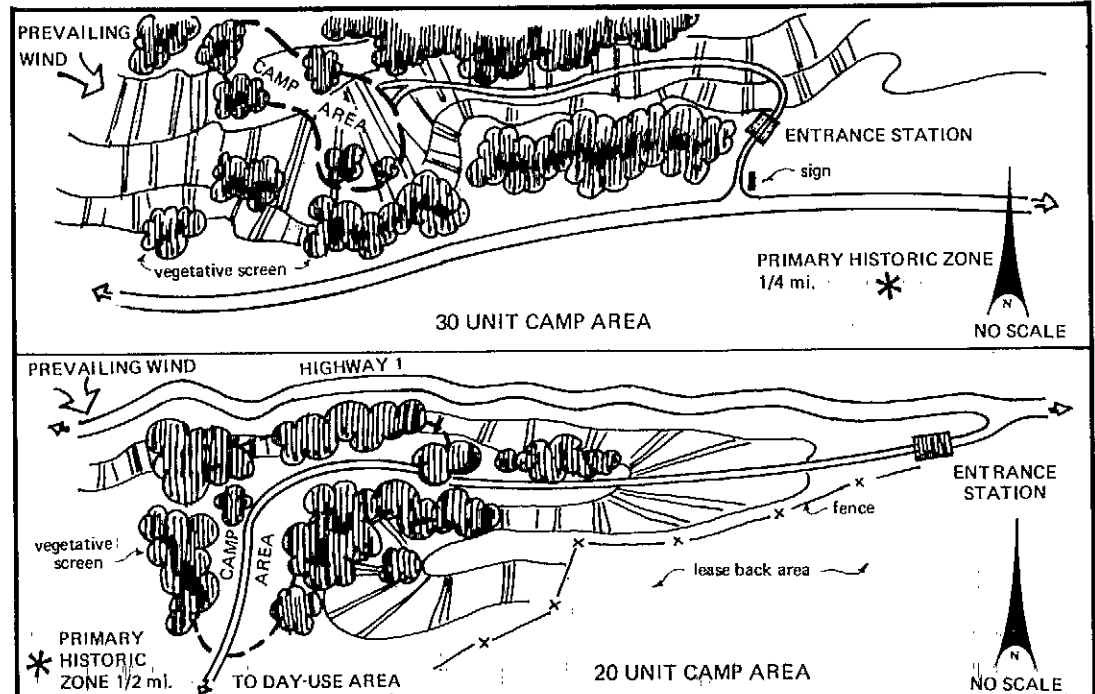
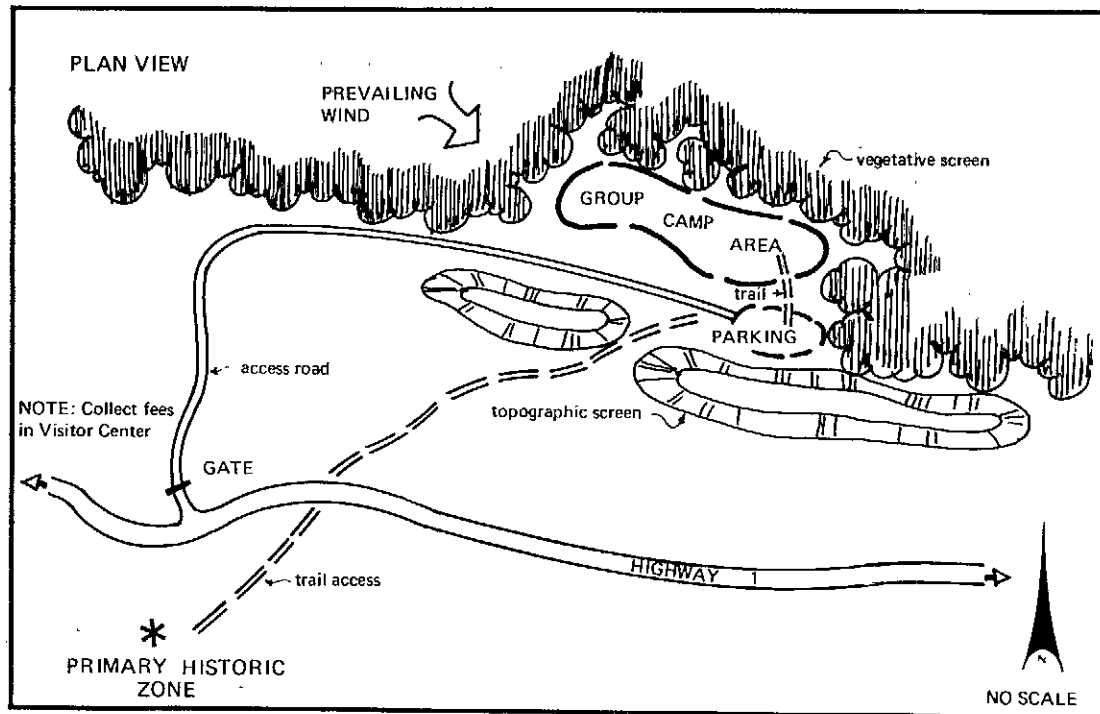


FIGURE 21



DESIGN PROTOTYPE: GROUP CAMP AREA

DESIGN CRITERIA

- ACCOMMODATE PARKING FOR 10 CARS @ 3 PEOPLE/CAR
- ACCOMMODATE 2 UNITS/ACRE @ 15 PEOPLE/UNIT
- 0-10% SLOPE
- PROTECTION FROM WIND
- VISUALLY ISOLATED FROM PRIMARY HISTORIC ZONE
- VISUALLY ISOLATED FROM HIGHWAY 1
- SEPARATION FROM INCOMPATIBLE ACTIVITIES (GRAZING, ETC.)
- LOCATE IN LOW-MODERATE "ENVIRONMENTAL SENSITIVITY AREA"
- AVAILABILITY OF UTILITIES
- ACCESS TO HISTORIC ZONE
- FACILITY FOR COLLECTION OF FEES

NOTE: "●" INDICATES THAT SITE SATISFIES DESIGN CRITERIA

GROUP CAMP SITE

A group camp area is planned at the intersection of Fort Ross Creek and the San Andreas Fault that has been used as a campground for archeological field groups. Group use should be continued for several reasons. A group camp area will receive less use than an all-purpose campground and would create less adverse impact on the grass meadow comprising a portion of this area. Fewer cars would be using such a campground, thereby minimizing the encroachment on the historic scene. Visitors could be routed to and from the primary historic area along the old Russian Road.

FUTURE CAMP AREA

One additional general use camp area is planned for the proposed acquisition area north of the fort. This should be developed at some future time when there is a definite need beyond that which is filled by the other camp areas or nearby park units. There is little demand for such a facility at the present time. Access to this camp area should be regulated by routing visitors along the entrance road to the Personnel Housing and Administration Center complex.

ADMINISTRATIVE AND INTERPRETIVE FACILITIES

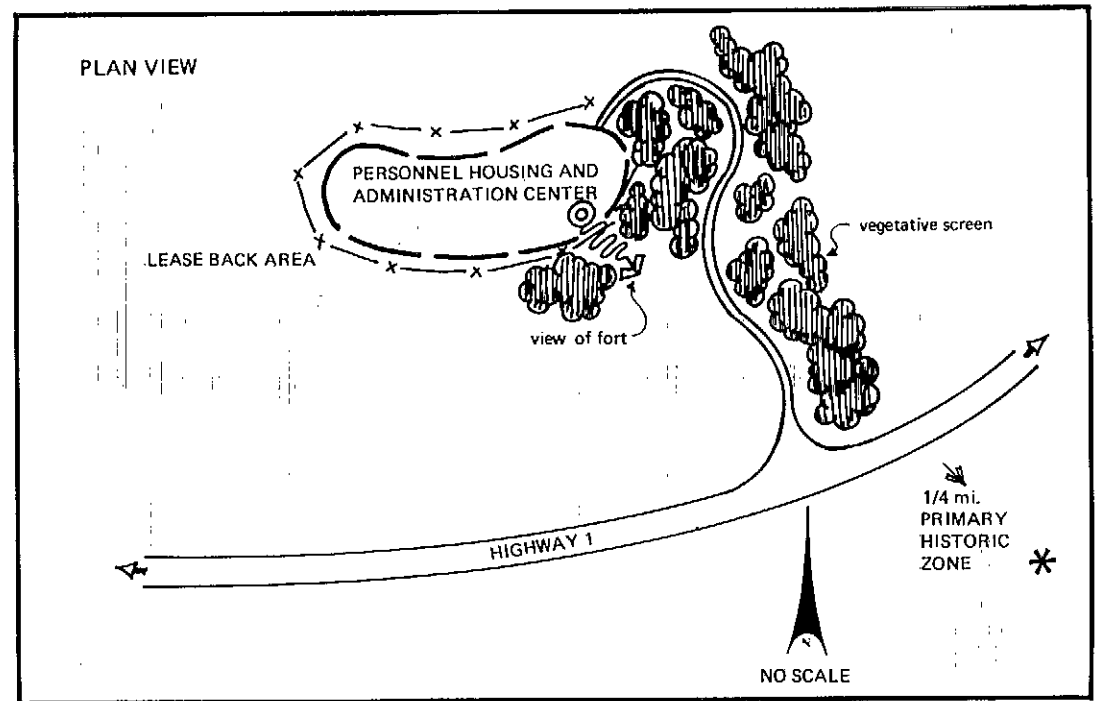
The land use plan designates two areas of administrative and interpretive facilities: (1) the Personnel Housing and Administration Center and (2) the Visitor Orientation Center. The existing location of the park residence seriously encroaches on a culturally sensitive area and its removal to the designated site is imperative.

As development and, consequently, visitation increase there will be a growing need for construction and eventual expansion of the Personnel Housing and Administration Center. The anticipated components of such a complex are described in the design prototype.

VISITOR ORIENTATION CENTER

A comprehensive program for a Visitor Orientation Center has been developed. This facility, planned for construction in the 1976-77 fiscal year will include an audiovisual program facility, a viewing area/visitor lounge, a museum gallery, a small reference room, a park personnel office, restrooms and a concessionaire space. The viewing area will offer commanding views of the countryside as well as the historic area. The orientation center location is shown on the General Development Plan.

FIGURE 22



DESIGN PROTOTYPE: PERSONNEL HOUSING AND ADMINISTRATION CENTER

DESIGN CRITERIA

- PROVIDE FOR:
 - PARKING, 5-10 CARS
 - 3-5 RANGER RESIDENCES
 - MAINTENANCE YARD, GARAGE
 - STABLE AND CORRAL
 - WORKSHOP/RESEARCH AREA
- 0-10% SLOPE FOR BUILDINGS
- LOCATE IN LOW-MODERATE "ENVIRONMENTAL SENSITIVITY AREA"
- VIEW OF FORT
- VISUALLY ISOLATED FROM PRIMARY HISTORIC ZONE
- VISUALLY ISOLATED FROM HIGHWAY 1
- AVAILABILITY OF UTILITIES
- SEPARATION FROM INCOMPATIBLE ACTIVITIES (GRAZING, ETC.)
- SURVEILLANCE OF CAMP AREAS
- GROUPING WITH OTHER STRUCTURES

NOTE: "●" INDICATES THAT SITE SATISFIES DESIGN CRITERIA

SCENIC AND FOREST RESERVES

The vast majority of the land within the proposed boundary is designated as scenic and forest reserves. Preservation of this land is imperative to the integrity of the historic viewshed.

Preservation of the viewshed from the historic area as well as from the highway does not necessarily exclude all activities from this area. Grazing has historically occurred on these lands and should be allowed to continue as it existed during the Russian Period and under the following conditions:

1. Grazing should be regulated by a resource management plan delineating specific requirements on the types and numbers of animals, grazing season duration, areas to be grazed, and other factors regarding the impact of grazing on the environment.
2. Grazing should be in conformance with an interpretive plan designating the historical accuracies of grazing.

HIGHWAY 1 RELOCATION

The current alignment of Highway 1 presents certain obtrusions, as cars travel within 100 feet of the fort, encroaching upon the historic scene. Access to the historic site of the Kashia Pomo Indians would be greatly facilitated by relocation of the highway away from the fort and automobiles on the highway could then be easily visually screened from the primary interpretive area.

This idea is not new. The concept was accepted by the Department of Transportation in the early 1960s but the project was

ultimately terminated due to a lack of funds. The Planning Program and Planning Guide of the Department of Transportation no longer contains this project and no construction is anticipated within the next twenty years. Efforts will be made to convince the Department of Transportation of the importance of this project.

OPERATIONAL RECOMMENDATIONS

Increased development at Fort Ross State Historic Park will generate a need for additional personnel. Provision should be made for adequate fire protection (equipment and water supply) for the entire area as well. A list of personnel requirements according to development categories follows.

Historic Area

The various personnel requirements of the interpretive program are based upon the function of the particular aspect. These operational functions and their requirements are:

1. *House Museums and Exhibits*

These will contain artifacts of various periods, uses and conditions placed in a number of different localities inside and outside of the fort.

Requirements: Curator Staff

Maintenance and Security Considerations

2. *Docent and Tour Guides*

Guided tours of various trails, exhibits, house museums, etc.

Requirements: Historians

Expert Interpretive Staff

3. *Research Facility*

This facility, located at park headquarters, will support the ongoing research, both archeological and historical, for a decade or more. This facility will not generally be open to the public. It will be used to store and protect the collections not on display.

Requirements: Curator Staff

Maintenance and Security Considerations

4. *Orientation and Visitor Services*

These will be required at both the Visitor Center and inside the Historic Area.

Requirements: Ranger Staff

Maintenance and Security Considerations

Visitor Protection and Patrol

Recreation

The following are proposed recreational uses outside of the historic area that will require additional personnel. These are long-range proposals not yet in the development schedule.

1. *Overnight Camping*

(1) Camp Area (hillside 30 sites)

(2) Camp Area (ravine 20 sites)

(3) Trailer Camp Area (35 sites)

(4) Group Camp Area (10 vehicles)

Requirements: Maintenance and Fee Collection

2. *Day Use Areas*

(1) Picnic Areas (grove, orchard, cove)

(2) Scenic Overlooks (2)

(cont'd. page 60)

FIGURE 23

GENERAL DEVELOPMENT PLAN PRIMARY HISTORIC ZONE

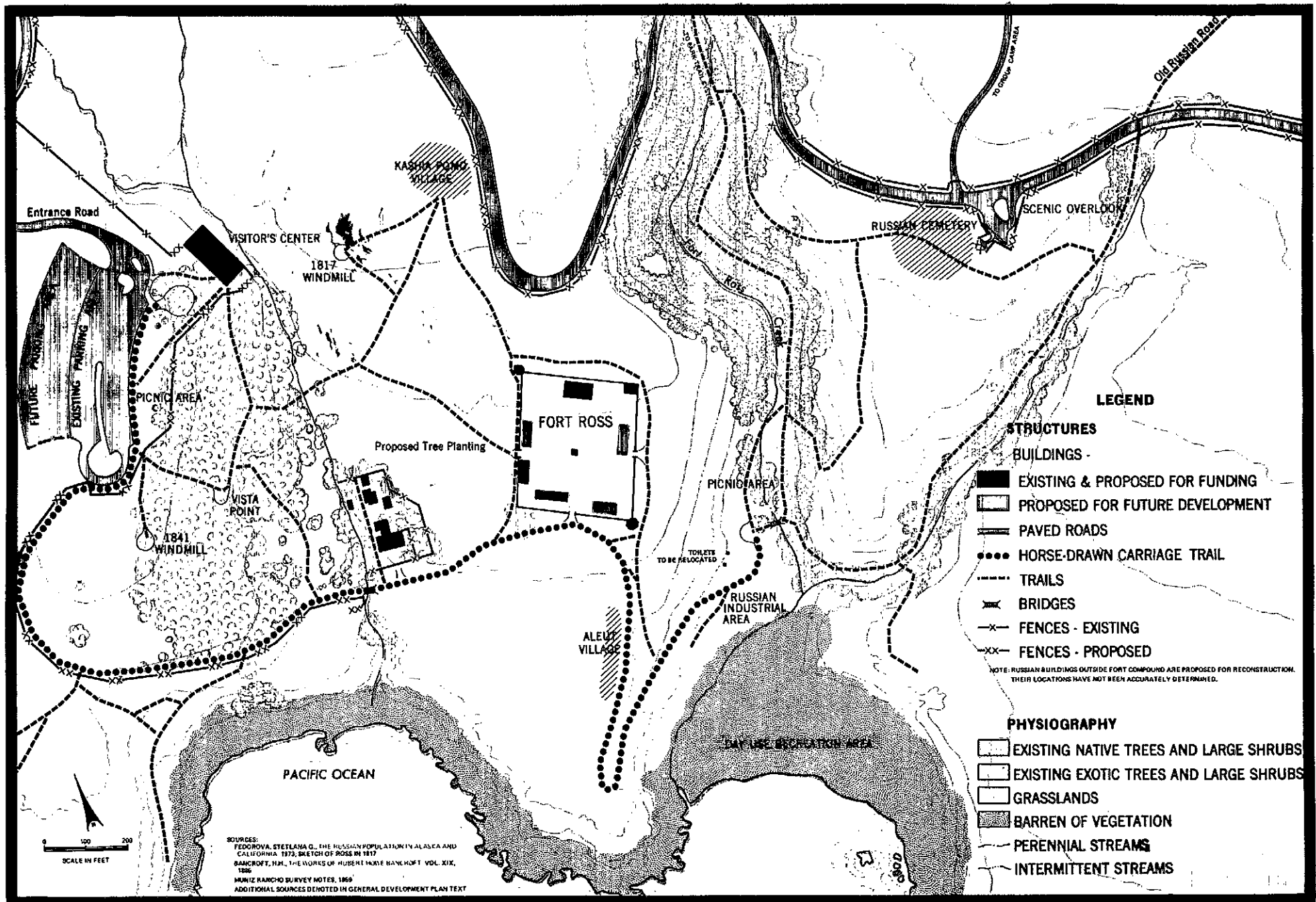
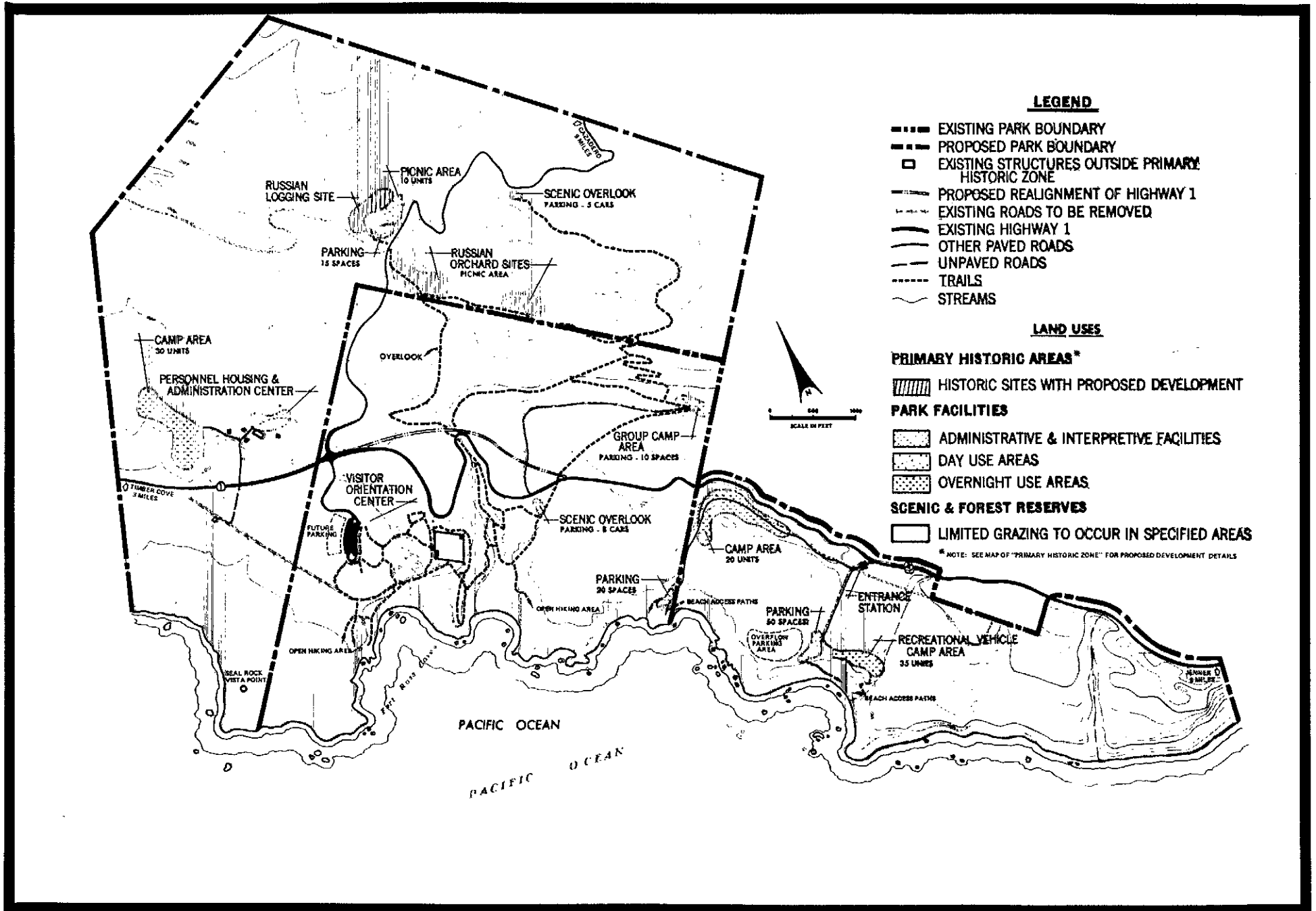


FIGURE 24

GENERAL DEVELOPMENT PLAN



(3) Interpretive Trails

(4) Parking Facilities

Requirements: General Maintenance and Fee Collection

3. Beach Use

At such time as access for general beach use is developed, visitor protection should be considered.

Recommendations for Further Study

GRAZING

The inhabitants of Fort Ross have grazed animals on the land to varying degrees continuously since the Russians arrived in 1812. It is desirable and practical to retain grazing to the degree that it maintains the historically accurate pastoral scene. However, this grazing should be studied to determine at what level

(in terms of numbers of animals per acre per year) such grazing could become detrimental to the resources of the park, and how this grazing should be withdrawn because of vegetation conditions or conflict with visitor use.

Written accounts describe Fort Ross as having sheep, cows, and pigs running loose; describing the beach as a pig run. The grazing study should also determine breeds of animals that were accurate to the interpretive period.

PLANT MATERIAL

It is entirely possible that several of our present day agricultural and ornamental plant varieties were introduced to Fort Ross by the Russians and subsequent cultures. The first Gravenstein apples grown in California are said to have been planted here. Princess Elena, wife of Commandant Rotchev, is reported to have had a fine rose garden and "glass house."

Varieties of roses still existing on the property are thought to be from those imported by the Russians. Mrs. Call, wife of George W. Call, was from Chile and brought a great many plants from South America to her yard. Her fuchsia collection was one of the finest in California at the time.

Man's relationship to plants is an important factor in the interpretation of his lifestyle. To properly restore and interpret these ornamental gardens as well as the utilitarian kitchen gardens much information is necessary. A study must be made to inventory surviving plant material, to determine those plants that might have been introduced, and to determine what plants would be found in a "typical" garden of the period. This research will be essential for the authentic reconstruction of the gardens. It is recommended that these studies be accomplished by expert plant specialists versed in historic varieties.

V ENVIRONMENTAL
IMPACT REPORT



V. ENVIRONMENTAL IMPACT REPORT

Project Description

Existing Environment

Environmental Impact

Modification of Regime

Alteration of Ground Cover

Alteration of Drainage

Paving

Noise

Land Transformation and Construction

Buildings

Roads and Trails

Fences and Signs

Recreational Facilities

Cut and Fill

Removal of Existing Structures and Paved Surfaces

Resource Extraction

Vegetation Removal

Processing

Grazing

Land Alteration

Landscaping

Changes in Traffic

Automobile and Pedestrian

Adverse Environmental Effects Which Cannot be Avoided

Mitigation Measures Proposed to Minimize the Impact

Alternatives to the Proposed Action

Relationship of Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

Irreversible Environmental Changes Which Would be Involved

Growth Inducing Impact

Organizations Consulted in Preparing Environmental Impact Report

V. ENVIRONMENTAL IMPACT REPORT

Project Description

The California State Department of Parks and Recreation proposes a General Development Plan for Fort Ross State Historic Park. This plan includes approximately 870 acres of proposed acquisition area adjacent to the presently owned state lands.

Fort Ross State Historic Park is located on the Sonoma County coast, 11 miles northwest of the town of Jenner on State Highway 1. The unit presently consists of 358 acres with 5000 feet of ocean frontage and contains an additional 90 acres of tidelands managed as an underwater park unit under a ten-year renewable lease from the State Lands Commission. Visitor attendance for the 1974 fiscal year amounted to approximately 300,000.

Fort Ross was established in the spring of 1812 by the fur trading amalgamation known as the Russian-American Company. In 1799 Tsar Paul granted to this organization a charter that gave it a complete monopoly over all the Russian enterprises in North America. The Russians came not specifically as colonists but as employees of a company interested primarily in fur trading and supplying the food needs of its Alaska operations.

The Kashia Pomo Indians inhabited this area for at least several thousand years prior to the Russian arrival and maintained a close relationship with the colonists. When the colony was sold in 1841 to John Sutter no one remained to help preserve some trace of the culture that for a time had dominated a significant portion of California's coastline. The fort compound, with the Russian chapel,

Rotchev House, well, and two blockhouses, are all that remain to tell the story of those hardy adventurers that once called California home.

The purpose the park is to enable visitors to know, enjoy, and understand this Russian adventure in California. The story of the Kashia Pomo Indians who inhabited this area prior to the Russian arrival, the Russian occupation of 1812-1841, and the American Period which followed, will be told by means of accurate reconstructions of buildings, trails, and other significant structures.

The objectives of Fort Ross State Historic Park may be classed into three general categories: (1) Historical Interpretation, (2) Recreational, and (3) Scenic and Natural Reserves. The Zone of Primary Cultural Interest where nearly all of the reconstructions will occur encompasses approximately 10 acres. This development is necessary to allow park visitors to experience and appreciate the rugged Russian venture of 150 years ago. It is of statewide, national and international significance in that Fort Ross represents the only Russian settlement experience readily available within the continental United States.

An analysis of statewide recreational needs indicates that there is a definite need for additional day use and overnight use facilities along this stretch of the Sonoma County Coast. The General Development Plan proposes locations for overnight camp facilities as well as day use areas. Other state and county parks, including Salt Point State Park 8 miles north and Sonoma Coast State Beach 11 miles south, exist in the vicinity and are expected to expand their recreational facilities as the need arises, thus reducing the need for Fort



Ross to meet more than a small portion of the camping demand.

The third general objective of the park, the preservation of scenic and natural reserves, involves the greatest land area. Retention of the pristine quality of the views from Highway 1 and all points within the park is highly important and is a primary factor in the location of all proposed development. Grazing of the grasslands in these areas will be allowed to continue in adherence to a program of resource management guidelines.

The General Development Plan for Fort Ross State Historic Park consists of a series of studies which scrutinize the cultural and natural resources of the park and determine the public need for the project. These studies include a Resources Inventory and Analysis, Resource Management Plan, Analysis of Recreational Needs, and General Development Plan.

The lands in the process of acquisition are in two parcels. The northerly parcel is the larger with approximately 635 acres and 1700 feet of ocean frontage. The southerly parcel consists of approximately 235 acres with 8100 feet of ocean frontage.

Existing Environment

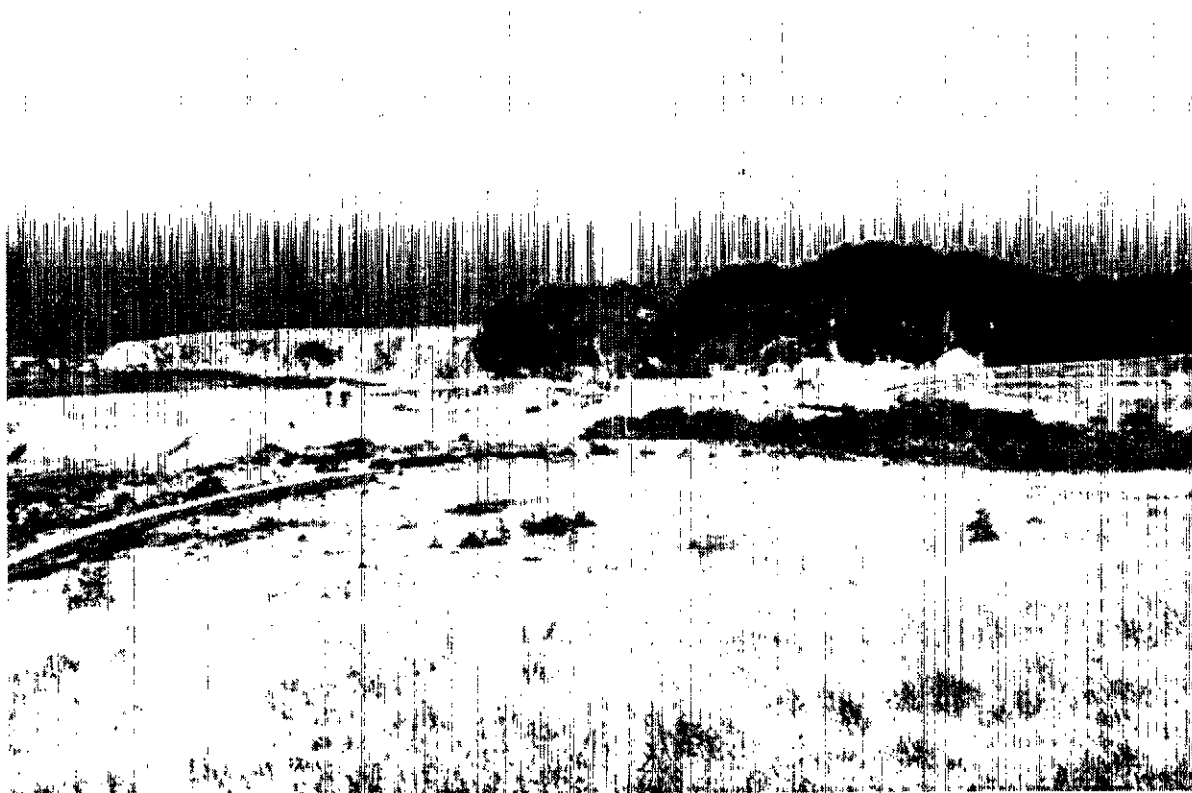
The cultural resources associated with these inhabitants of the Fort Ross area comprise known and suspect Indian, Russian, and Aleut archeological sites and American Period buildings. Planning proposals recognize the significance of these resources and all development should be preceded by an archeological investigation.

Preservation of the exceptional natural resources of this unit is also imperative. Impressive ocean views abound along the coastal shelf which projects abruptly into the sea with cliffs rising to nearly 100 feet above sea level. The ruggedness of this precipitous coastline is broken by the tranquility of Fort Ross Cove Beach. Grasslands predominate on the windswept coastal prairie bordered to the east by hills distinguished by the charm of redwood and mixed-conifer forests.

The San Andreas Fault is indicated by sag ponds and slumping features as well as changed configurations of land and tree

growth as it traverses the park in a northwesterly direction. This resource must be considered for its seismic risk as well as its inherent interpretive value.

Two rare and endangered plant species exist within this area and should be carefully protected. They are *Chorizanthe valida*, a member of the buckwheat family, and *Dichondra donnelliana*, widely familiar in cultivation as a lawn and ground cover, but rarely found in the wild. Although the brown pelican, an endangered bird, is sometimes seen flying along the coast during the winter, there are no rare and endangered animal species resident to the area.



Environmental Impact

Impact on the environment caused by the proposed General Development Plan will be minimal. A primary purpose of Fort Ross State Historic Park and the acquisition areas in progress is to preserve the lands in their existing condition as public open space and retain the ocean view along this section of the California coast.

Activities which may cause environmental impact are as follows:

MODIFICATION OF REGIME

Alteration of Ground Cover

Existing ground covers will be removed in areas where they are replaced by buildings, roads, trails, parking lots, and other park facilities and where they provide a fire hazard such as in camping and picnic areas.

Alteration of Drainage

Minor alterations of surface runoff patterns may be necessary in camping areas or near buildings and trails. There will be no need for the re-routing of streams or major drainage patterns.

Paving

Access roads to camping areas, the recommended re-routing of Highway 1, and parking areas will be paved to accommodate vehicular traffic. Appropriate trails may be paved to provide for pedestrian traffic. Increased runoff can be expected.

Noise

Some increase in vehicular generated noise and sounds due to increased human activity can be expected as increased development encourages increased visitation.

LAND TRANSFORMATION AND CONSTRUCTION

Buildings

Historic and administrative buildings will alter the character of the natural environment. Any adverse impacts on the environment that may be caused by development of administrative facilities will be dealt with in an Environmental Impact Report when it is determined that these facilities should be added.

Reconstructions of historic structures will be classified under classes 1 and 2 of Article 8 of the "Guidelines for Implementation of the California Environmental Quality Act of 1970", amended December 17, 1973, as categorically exempt projects. This classification follows analysis of the project as a replacement of a former structure. The new structures will be located on the same sites as the original structures.

Roads and Trails

Road and trail construction will necessitate grading and the removal of some vegetation.

Fences and Signs

Fences and signs will be installed only where historically significant and where required for public safety and convenience.

Recreational Facilities

Any adverse effects on the environment that may be caused by development of recreation facilities will be dealt with in an Environmental Impact Report when it is determined that facilities should be added.

At this time the anticipated impacts will be:

1. Some cut and fill for access roads and campsites.
2. Visual impact on the natural environment by roads, campsites, signs, fences, vehicles, people, and other park facilities.
3. Increased noise levels due to vehicles and human activity.
4. Some increase of exhaust emissions due to vehicular traffic.
5. Some removal of existing vegetation.
6. Some increase in surface runoff due to paving.
7. Some dislocation of wildlife resources and an increased potential for fires due to human activity.

Cut and Fill

Some cut and fill will be required for construction of buildings, camp areas, picnic areas, parking areas, scenic overlooks, roads and trails.

Removal of Existing Structures and Paved Surfaces

Some removal of existing structures and paved surfaces will be required in order to reduce encroachment on the historic scene and natural environment.

RESOURCE EXTRACTION

Vegetation Removal

Some vegetation removal will be required for the construction of buildings and other park facilities. This will consist mainly of groundcover removal with minimal tree removal in areas of administration buildings.

Minimal tree removal will occur in those areas that significantly encroach on the historic scene (Some eucalyptus and evergreen trees.)

PROCESSING

Grazing

Grazing will be allowed to continue in those areas in which it enhances the historical interpretation of the Russian period.

Impact will be minimal since the area is presently heavily grazed.

LAND ALTERATION

Landscaping

Some minor impact can be expected by the plantings of trees and the replacement of groundcover in cut and fill areas. These plantings will be minimal and compatible with the natural character of the environment.

CHANGES IN TRAFFIC

Automobile and Pedestrian

As historical and recreational development increase, an increase in automobile traffic is expected. The anticipated impact will be:

1. Visual impact on the natural environment by vehicles and human activity.
2. Some increase in noise levels and exhaust emissions.

Adverse Environmental Effects Which Cannot be Avoided

It is the intent of Fort Ross State Historic Park to provide the general public an opportunity to enjoy the unique experience of the first Russian settlement in California. In addition to this primary objective, some effort will be made to satisfy some of the recreational demands for this portion of the Sonoma Coast.

The proposed development is consistent with these purposes and sympathetic with the environmental conditions. Those impacts which are unavoidable are minimal and can all be substantially mitigated.

Any adverse effects on the environment that may be caused by development of park facilities will be dealt with in an Environmental Impact Report when it is determined that these facilities will be designed and developed.

However, at this stage of the planning the following unavoidable impacts can be expected:

1. An increase in visitation and traffic volumes, creating some impact on visual quality, noise levels, and air pollution. With the local breezes that prevail most of the time, this increase in pollution will be minimal.
2. Some removal of existing vegetation resources.

3. Some cut and fill for buildings, camp areas, picnic areas, parking areas, scenic overlooks, roads and trails.
4. Some visual impact on the present natural environment.

Mitigation Measures Proposed to Minimize the Impact

The following mitigation measures will substantially minimize the environmental impact:

1. Visitation and traffic volumes have been carefully studied resulting in projected increases in future years. Proposed development is designed to minimize the impact on visual quality and noise levels by concentrating human activity in the primary historic zone and in visually isolated recreational areas.
2. The minimal removal of vegetation will be mitigated by:
 - (a) re-planting of native trees and groundcover to restore the historical authenticity and natural character of the environment
 - (b) the enhancement of the visitors' interpretive experience and recreational activities
3. Park facilities are carefully designed to minimize the amount of cut and fill operations required.
4. The visual impact on the natural environment is mitigated by the sensitive location of all park facilities. Preservation of the views within the primary historic zone and from Highway 1 is a major design factor in the General Development Plan and is supported by screening with existing vegetation and topography.

Alternatives to the Proposed Action

The primary alternative to this project is no action whatsoever. This solution is not acceptable since it would be in direct conflict with the stated purpose of the park. This purpose is to enable visitors to enjoy and understand the Russian adventure in California and to partially meet the demand for recreational facilities without significant impact on the pristine quality of the park.

Relationship of Local Short-term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity

This project will cause no impairment of potential productivity for any of the proposed land uses. The General Development Plan adheres to a Resources Management Plan that analyzes the long-term effects of land uses on the landscape. Most of the park land will remain in its present open space use for the continued benefit of future generations. It is anticipated that the intensity of use in the primary historic zone and in areas of recreational development will be such that there will be no deterioration in long-term compatibility with this use.

Grazing policies compatible with the Resource Management Plan should allow continued agricultural productivity of the land as a part of the overall interpretive program.

Irreversible Environmental Changes Which Would Be Involved

It is anticipated that the proposed development will not cause any irreversible environmental changes. The abundance of archeological sites within the park is a significant resource and is subject to irreversible damage. However, development for other than interpretive purposes has not been proposed for areas of known significant archeological sites. Archeological investigation will precede all development and only under extraordinary circumstances will development be allowed to occur upon an archeological site.

Growth Inducing Impact

Development of additional facilities at Fort Ross is anticipated to generate additional visitation to the area. Any increase in tourism will trigger pressure from tourist accommodation developers such as motels, campgrounds, restaurants, and shops. These, in turn, could be expected to require additional housing development for their employees.

The Department of Parks and Recreation is making an effort to preserve the immediate Fort Ross vicinity through acquisition. As it is not practical to acquire all property desirable to retain the open pristine atmosphere surrounding the Fort, it is recommended that the California Coastal Zone Conservation Commission and local authorities enforce zoning and land use policies that will maintain this valuable scenic resource.

Organizations Consulted in Preparing Environmental Impact Report

The following people and organizations were contacted in preparation of the General Development Plan:

California Department of Conservation, Division of Forestry; Lee Burcham
California Department of Fish and Game, Region 3; Manley Inlay
California Division of Mines and Geology; Carl Hauge, Mike Huffman, Perry Animoto
California Native Plant Society; Mary Major
University of California, Davis, Botany Department; June McCatchgo
Sonoma County Planning Department; Walter Kieser
The Sea Ranch Association, Sonoma County; George Wickersteadt
U.S. Department of Agriculture, Forest Service and Soil Conservation Service

SELECTED REFERENCES

Cultural Resources:

Bancroft, H.H. *The Works of Hubert Howe Bancroft*, Vol. 19: *History of California*, Vol. 2, 1801-1824. San Francisco: The History Company, 1886.

Fedorova, Svetlana G. *Ethnic Processes in Russian America*. Translated by Antoinette Shalkop. Anchorage: Historical and Fine Arts Museum, 1973; English translation 1975.

_____. *The Russian Population in Alaska and California*. Translated and edited by Richard A. Pierce and Alton S. Donnelly. Kingston, Ontario: The Limestone Press, 1973.

Fort Ross Citizens Advisory Committee. "Interpretive Prospectus." Unpublished document. Fort Ross State Historic Park, 1973.

Fort Ross Citizens Advisory Committee. *Fort Ross: The Russian Settlement in California*. Santa Rosa: Privately published, 1974.

Haase, Ynez. "The Russian American Company in California." Master's thesis, University of California, 1955.

Hogg, Victor. *Historic Fort Ross, A Preliminary Development and Feasibility Study*. Sacramento: California State Department of Parks and Recreation, 1970.

Pritchard, William E. "An Archaeological Study of the Chapel at Colony Ross," manuscript on file with the California Department of Parks and Recreation. Sacramento, 1972.

Shur, Leonid A., and Gibson, James R. "Russian Travel Notes and Journals as Sources for the History of California, 1800-1850." *California Historical Quarterly*, Vol. 3, No. 1 (1973).

"The Russian Colonies in California." *California Historical Society Quarterly*, Vol. 19, No. 3 (1933).

Treganza, Adan E. *Fort Ross: A Study in Historical Archaeology*. Sacramento: California State Department of Parks and Recreation, 1953.

Natural Resources:

Blake, M.C., Jr., Smith, J.T., Wentworth, C.M., Wright, R.H. Preliminary geologic map of western Sonoma County and northernmost Marin County, California. USGS-HUD Basic Data Contribution 12: 1971.

California State Department of Water Resources. *Evaluation of Water Resources, Sonoma County, California*. (Preliminary draft, Bull. 118-4), 1974.

California State Division of Mines and Geology. "Zoning for Surface Fault Hazards in California." *California Geology* Vol. 27, No. 10 (1974).

California State Division of Mines and Geology. "Guidelines to Geologic/Seismic Reports." CDMG Notes, Number 37, Aug. 1973.

California Forest and Range Experiment Station for the State Division of Forestry. "Preliminary Soil-Vegetation Maps for Fort Ross." U.S.G.S. Quad Maps, 1975.

California Native Plant Society. Special Publication No. 1, *Inventory of Rare and Endangered Vascular Plants of California*. Edited by Robert W. Powell. Berkeley: 1974.

Elford, Robert C. *Climate of Sonoma County*. Weather Bureau, U.S. Department of Commerce, 1964.

Gilliam, Harold. *Weather of the Bay Area*. Berkeley: University of California Press, 1962.

Huffman, M.E. *Geology for Planning on the Sonoma Coast Between the Russian and Gualala Rivers*. Sacramento: California Division of Mines and Geology, 1972.

Ornduff, Robert. *Earthquake Country*. Menlo Park: Lane Books, 1972.

Lawson, A.D. and others. *The California Earthquake of April 18, 1906: Report of the State Earthquake Investigation Commission*. Washington, D.C.: Carnegie Institute, Publication No. 87, 1908.

Munz, Phillip A. *A California Flora*. Berkeley: University of California Press, 1959.

Sonoma County Planning Department, Advanced Planning Division. *Environmental Resources Management Element: Natural Resources Inventory*. Santa Rosa, October, 1974.

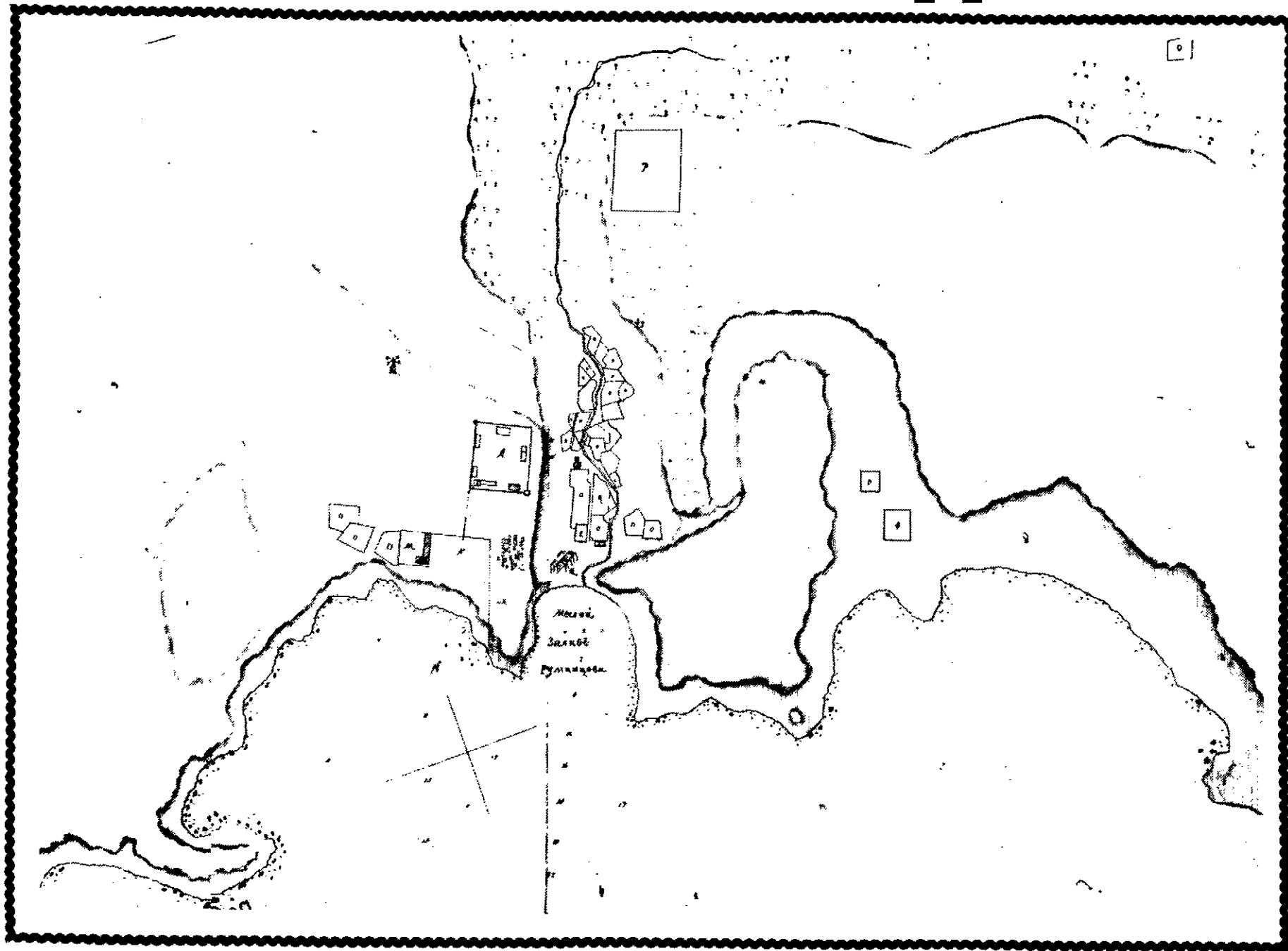
U.S. Department of Agriculture, Forest Service and Soil Conservation Service. *Soil Survey of Sonoma County, California*, 1972.

U.S. Department of Commerce, National Oceanic and Atmospheric Administration. *Environmental Data Service: Climatological Data, California*. Annual Summaries, 1960-1974.

Wilsey and Ham. "Hopkins Trust Mountain Property, Phase II," Foster City, California: Reproduced material, 1974.

_____. "Truckee-Donner Recreation and Park District Master Plan," Foster City, California: Reproduced material, 1974.

Appendixes



Old Russian map of Fort Ross area, dated 1817

Appendix A

PARTIAL LIST OF PLANT LIFE ALONG FORT ROSS CREEK AND IN ITS VICINITY

Trees

California bay, *Umbellularia californica*
California nutmeg, *Torreya californica*
Coast live oak, *Quercus agrifolia*
Coast redwood, *Sequoia sempervirens*
Douglas fir, *Pseudotsuga menziesii*
Tanbark oak, *Lithocarpus uensiflora*
White alder, *Alnus rhombifolia*
Willow, *Salix* sp.

Shrubs and Woody Vines

"Berry", *Rubus* sp.
California hazelnut, *Corylus rostrata* var. *californica*
Coffeeberry, *Rhamnus californica*
Coyote brush, *Baccharis pilularis* var. *consanguinea*
Currant, *Ribes* sp.
Elderberry, *Sambucus* sp.
Honeysuckle, *Lonicera* sp.
Huckleberry, *Vaccinium ovatum*
Pacific wax-myrtle, *Mynca californica*

Herbaceous Flowering Plants

Bedstraw, *Galium* sp.
Buttercup, *Ranunculus* sp.
Calypso, *Calypso bulbosa*
Chickweed, *Stellaria* sp.
Clover, *Trifolium* sp.
Coral-root, *Corallorrhiza maculata*
Douglas iris, *Iris douglasiana*
Fairy bells, *Disporum* sp.
Fetid adder's tongue, *Scoliopus bigelovii*
Forget-me-not, *Myosotis sylvatica*
Golden eggs, *Oenothera ovata*
Grasses (various genera)
Manroot, *Marah* sp.
Milkmaids, *Dentaria californica*
Milk thistle, *Silybum marianum*
Miner's lettuce, *Montia perfoliata*
Mugwort, *Artemisia vulgaris* var. *heterophylla*

Nettle, *Urtica* sp.
Slim solomon's seal, *Smilacina sessilifolia*
Sorrel, *Oxalis* spp.
Strawberry, *Fragaria* sp.
Sweet coltsfoot, *Petasites palmata*
Trillium, *Trillium* sp.
Violets, *Viola* spp.
Wild ginger, *Asarum canadatum*
Yarrow, *Achillea millefolium*

Ferns, Fern Allies & Lower Plants

Bracken, *Pteridium aquilinum* var. *lanuginosum*
Bracket fungi
Five-finger fern, *Adiantum pedatum*
Horsetail, *Equisetum hyemale* var. *californicum*
Lichens
Liverworts
Mosses
Polypody, *Polypodium* sp.
Sword fern, *Polystichum* sp.
Wood fern, *Dryopteris* sp.

Compiled by Ron Allison, Don Hook, and
John Werminski on field trip of 12 March 1975.)

Plant species on Coastal Grasslands of Fort Ross

Holcans lanatus
Idaho Fescue (N), *Festuca idahoensis*
Purple needle grass (N), *Stipa pulchra*
Wild oats, *Avena* sp.
Rip gut *Bromus rigidis*
Blue-eyed grass (N), *Sisyrinchium bellum*
Foothill needle grass, *Stipa lepida*
Annual rye grass
Thistle
Wild barley, *Hordum* sp.

There is a wide variety of plant species along the coastal grasslands.
Most of these species have been introduced.

Appendix B

RECREATION ANALYSIS

Fort Ross State Historic Park is situated on the Sonoma County Coast, within four hours travel time of three metropolitan centers. These metropolitan areas, representing almost 25 percent of the total population of California, exert the greatest recreational pressure on the Sonoma County Coast. The travel time zones and the estimated and projected populations for these metropolitan centers are as follows:

	Travel Time Zone	Projected Population *		
		1970	1980	1990
San Francisco-Oakland-San Jose Metropolitan Area	1-2 Hour	4,361,000	5,104,300	6,039,000
Sacramento Metropolitan Area	2-4 Hour	637,500	740,500	865,300
Stockton Metropolitan Area	2-4 Hour	290,700	340,100	393,500

Department of Finance, 9/71

Visitor attendance at Fort Ross SHP has shown a great increase in the last ten years. This increase in attendance has not been met with the development of facilities to meet this demand. Even though there was an 89 percent increase in visitor attendance, the day use picnic facilities stayed at 15 tables. The result is that Fort Ross operated at day use capacity for 243 days in 1973.

The Park and Recreation Information System (PARIS) Report shows the total recreation demand being exerted in each California county. For Sonoma County, in which Fort Ross State Historic Park is located, the following data is offered:

SONOMA COUNTY TOTAL FACILITIES NEEDED

	1970	1980	1990
Camping Units	1028	1348	1773
Picnic Tables	1526	1998	1634
Miles of Trail	269	351	465

EXISTING FACILITIES

	1970	1980	1990
Camping Units	910	910	910
Picnic Tables	664	664	664
Miles of Trail	128	128	128

ADDITIONAL FACILITIES NEEDED

	1970	1980	1990
Camping Units	118	438	863
Picnic Tables	862	1334	1970
Miles of Trail	141	223	337

Appendix C

Funding for Fort Ross State Historic Park

Fiscal Year	Source	Item	Item	Item Description	Amount
1974-75	'74 Bond	Archaeology		Research	\$ 30,000
1974-75	'74 Bond	Visitor Center		Preliminary Planning and Research	15,000
1974-75	'74 Bond	General Development Plan		Planning and Research	20,000
1975-76	Collier Conservation Fund	Visitor Center		Planning and Working Drawings	40,000
1976-77	'74 Bond	Interpretation and Archaeology		Research	40,000 +
1976-77	'74 Bond	Reconstruction (Official Barracks)		Working Drawings and Construction	150,000 +
1976-77	Collier Fund	Visitor Center		Construction	* °
1977-78	'74 Bond	Reconstruction (Kuskov House)		Working Drawings and Construction	<u>150,000 °</u>
				Total, excluding Visitor Center	\$445,000

LEGEND

- = approved and funded
- + = now before Legislature
- ° = Proposed

* The funding proposal for construction of the Visitor Center for the 1976-77 fiscal year will be submitted for legislative approval in April 1976, based on the estimate to be made by the Office of Architecture and Construction.