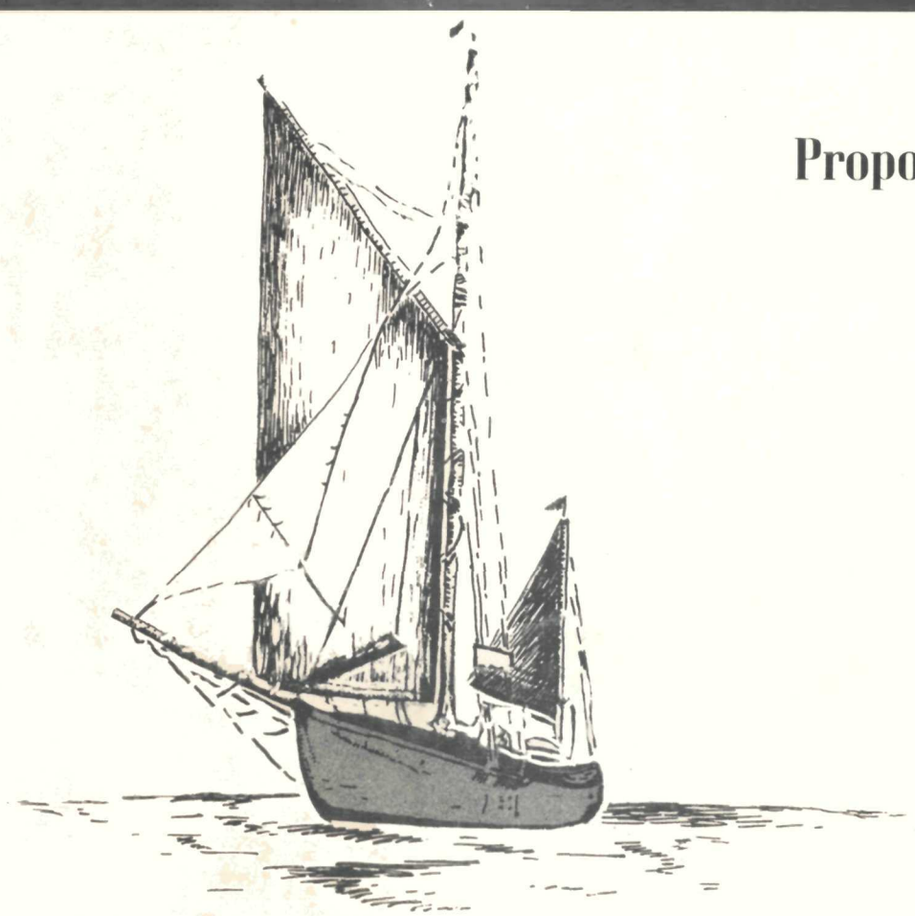
LAND USE SURVEY



Proposed

POINT REYES NATIONAL SEASHORE

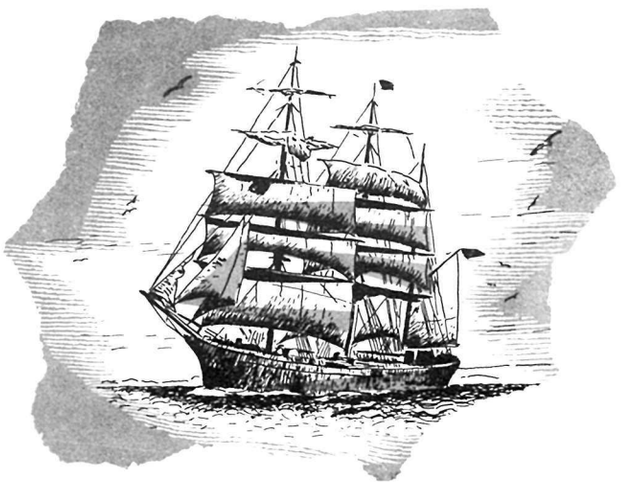
NATIONAL PARK SERVICE

UNITED STATES
DEPT. OF THE INTERIOR

LAND USE SURVEY

Proposed

POINT REYES
NATIONAL SEASHORE



prepared by

REGION FOUR OFFICE

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February 1961

UNITED STATES
DEPARTMENT OF THE INTERIOR
Stewart L. Udall, Secretary

NATIONAL PARK SERVICE
Conrad L. Wirth, Director

THIS REPORT NOT PRINTED AT GOVERNMENT EXPENSE.

Point Reyes...

Granite cliffs pounded ceaselessly by the surging sea; a ten-mile long beach exposed to the thrust of wind and waves; the lowlands of sand dunes and rolling hills enclosing lagoons and esteros; the sandy, sheltered and curving beach of Drakes Bay; the forest-covered Inverness Ridge - all a geological island in time slowly moving northward. There are bird rookeries on offshore rocks, herds of sea lions in sheltered coves, marine birds relaxing on fresh-water lakes, mule deer on brush-covered slopes; and the "white cliffs of Albion" seen by Sir Francis Drake. All these combine to make the Point Reyes Peninsula, so near to the heart of San Francisco, an outstanding scenic, scientific, historic and recreation area.

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Introduction

LAND USE SURVEY

This is a LAND USE SURVEY of the proposed Point Reyes National Seashore located in Marin County, California, on the Point Reyes Peninsula. It is current as of April, 1960. The proposal embraces the entire Point Reyes Peninsula with the exception of the villages and adjacent expansion areas, the Tomales Bay State Park, the facilities operated by the U.S. Coast Guard, and certain radio communications facilities of critical international importance.

Included in the proposal are provisions for the continued operation of most of the dairy ranches, suggestions for expansion of commercial fisheries to furnish recreation opportunities commensurate with the purposes of the seashore proposal, and continuance of the oyster industry in Drakes Bay to supply additional recreation facilities. The area being considered approximates 53,000 acres of land and inland lakes, plus the included bays and esteros, and the tidal and submerged lands within one-fourth mile of the coast of the proposed seashore.

A national seashore is distinguished from a national park primarily in its method of development and management, which may be somewhat less restrictive than in a national park. The national parks are spacious land areas which require in their public use programs exacting application of protective controls to conserve, unimpaired, their compelling manifestations of nature.

A national seashore, although it may offer certain unique or outstanding natural history elements requiring absolute preservation just as in a national park, generally will be capable of sustaining as a major objective a varied public recreation program less restrictive than would be suitable in a national park. Both types of areas are administered under the laws, rules and regulations of the National Park Service. All of the recreation activities reasonably allowable in a national seashore are encouraged. Boating and other water and beach recreation, softball, golf and other sports and games may be highly consistent where they can be worked out without endangering other important considerations. Thus, public use opportunities could exert more recreation "pulling" force than is usually expected at a national park where the recreation is generally of a more passive or contemplative nature. It is all a matter of basic policy, planning, and programming for the wisest use of resources.

The LAND USE SURVEY, made with donated funds, proposes the dedication of about 53,000 acres of lands for the national seashore out of a total of roughly 64,000 acres on the Point Reyes Peninsula. The excluded 11,000 acres would consist of Tomales Bay State Park, together with private lands within it, villages on the Peninsula, and adjacent lands for their expansion. Within the exterior boundaries of the proposed seashore about 33,000 acres of the Peninsula would be used exclusively for a variety of public uses. The PUBLIC USE ZONE would make available for public enjoyment a 70-mile coastal area with many miles of sandy beaches, interspersed between steep bluffs containing marine caves and flanked by offshore rocks. Inland from the bluffs and beaches are grassy terraces, sand dunes, or rolling uplands covered with coastal brush, and wind-pruned trees.

On the southern half of the Peninsula, the Inverness Ridge rises to a height of 1,400 feet. Its seaward side supports broadleaf trees and Douglas firs in steep ravines and along its summit. The eastern side of the Inverness Ridge was solidly covered with a Douglas fir forest before 1958 when a lumbering operation commenced. About midway of the Peninsula where Inverness Ridge rises, and northward for some 8 miles, the forest is a mixture of broadleaf and coniferous trees with bishop pines predominating. The varied character of the proposed PUBLIC USE ZONE, its natural condition and proximity to a large urban center, make the area one of the five most outstanding segments of unspoiled seashore remaining along the Pacific Coast.

All of the lands on Point Reyes Peninsula suggested for administration by the National Park Service are in private ownership at the present time, and are devoted largely to dairy farming or beef cattle ranching. This LAND USE SURVEY proposes that 20,000 acres of land in the central part of the Peninsula would be leased for the operation of dairy ranches or the raising of beef cattle. The RANCHING AREA would preserve this portion of the proposed seashore as "open space" for its scenic pastoral qualities.

The proposed boundaries of Point Reyes National Seashore include a total of 15 dairy ranches which raise approximately 7,000 head of dairy stock, with about 3,200 head in active milk production, and 10 beef cattle ranches with approximately 3,500 head of beef cattle. If a national seashore were established and managed in accordance with the present proposal, about half the dairy and beef cattle ranches would continue operation under lease agreements. Ranching operations within the portion of the national seashore to be reserved for public use would be largely, if not wholly, discontinued.

The oyster beds and oyster cannery on Drakes Estero would add recreation and economic value to the seashore and should be continued. The commercial fisheries on Point Reyes likewise have valuable recreation and economic implications. The fishery operations could be expanded to furnish charter boat service for deep-sea sport fishing. Construction of a harbor of refuge in the west end of Drakes Bay where these fisheries are located, has been proposed by State of California authorities. A safe anchorage off Point Reyes Peninsula would significantly increase sport fishing and the use of this part of the Pacific Ocean by pleasure craft berthed in San Francisco Bay.

The two radio receiving installations on Point Reyes Peninsula would continue to provide communication ser-

vices to the Orient, Australia, and ships at sea. Relocating the Sir Francis Drake Highway farther away from these installations and retaining the undeveloped status of adjacent lands would insure less interference with radio reception than will occur if the national seashore is not established. Prevention of automotive traffic west of the radio receivers on the presently State-owned beach, and restricting boats on Abbotts Lagoon to canoes or rowboats, would materially benefit these radio facilities and at the same time would be within the concept of good public recreation use.

Public recreation use of Point Reyes Peninsula is limited now to the enjoyment obtained from driving to Point Reyes, where recreationists are permitted to visit the Point Reyes Lighthouse, or from driving north on the Pierce Point road to the vicinity of McClure Beach. A spur road from Sir Francis Drake Highway leads to Drakes Beach, a 52-acre county-owned park which is nearly all marshland. Tomales Bay State Park contains delightful picnic areas and three small beaches where visitors can swim. Out of many miles of State-owned beaches on the Point Reyes Peninsula less than five miles are publicly owned and thus accessible for public enjoyment. With the exception of these beaches, the lighthouse, the State Park, and about 30 miles of public road, all of the Peninsula is off-limits to the public. South of the road from Inverness to Point Reyes the land is all privately owned and public access is prohibited.

Day use visitation to the proposed Point Reyes National Seashore would be derived largely from residents of the nine-county San Francisco Bay Area, and the Sacramento and San Joaquin Counties, plus some from residents of the other counties of the State, and out-of-state visitors to California. Considering the population growth anticipated within the nine-county Bay area, and the increase of recreation nationwide, it is estimated that the national seashore would receive at least 2.1 million day use visitors annually by 1980. Construction within the national seashore of campgrounds, and the development outside its boundaries of overnight accommodations by private industry, would increase overnight, weekend, and vacation use, it is believed, by an additional one-quarter million visitors.

An economic survey made by the National Park Service in collaboration with University of California professionals and other authorities indicates that removal of lands from the tax rolls in the event of national seashore establishment would not necessarily result in increased tax burdens to other property owners in Marin County. Loss in tax revenues would be more than compensated for in a short time by the various taxes paid by new facilities and services outside the proposed seashore that would be essential to serve seashore visitors.

The drawings herein, the accompanying pages of text, and the photographs are a graphic interpretation of the Point Reyes National Seashore proposal.

Clyde Sunderlund, Oakland

Moulin Studios, San Francisco

The few remaining open spaces near San Francisco are disappearing. The undeveloped land in the foreground, where bulldozers were at work in April 1958, is now covered with houses or soon will be. The undeveloped lands around Laguna de la Merced are golf and country clubs and Fort Funston. Establishment of a national seashore on Point Reyes Peninsula will secure for public use the only remaining large section of undisturbed seacoast near San Francisco.

CONTRASTING LAND USES . . . The Golden Gate Bridge links densely populated metropolitan San Francisco with southern Marin County. The fast growing city needs more living space, and all the open land in Marin, where homes can be built, will disappear soon. Point Reyes Peninsula, just visible near the top of the photograph, cannot escape a similar fate unless it is set aside and managed officially as a public recreation area.

PRESENT AND PROJECTED

Population

THE close relationship of the Point Reyes Peninsula to one of the nation's most heavily populated and fastest growing regions is a circumstance that is rarely found in combination with an extensive area endowed with such outstanding natural attributes as is the Point Reyes Peninsula.

The Bay Region, comprising 13 counties within a distance of about 100 miles of the Point Reyes Peninsula, is one of the two most densely populated areas of California, the other being the Los Angeles Urban Area. The counties within the Bay Region are listed below. Those preceded by an asterisk are within the immediate 9-county San Francisco Bay Area—the counties that actually front on the bay.

*Alameda	*Contra Costa	*Marin
Sacramento	*San Francisco	San Joaquin
*Napa	*San Mateo	*Santa Clara
Santa Cruz	*Solano	*Sonoma
Yolo		

In 1959, the 13 counties comprising the Bay Region supported a combined population estimated at nearly $4\frac{1}{2}$ million persons. This figure represents a gain of more than 136% since 1930.

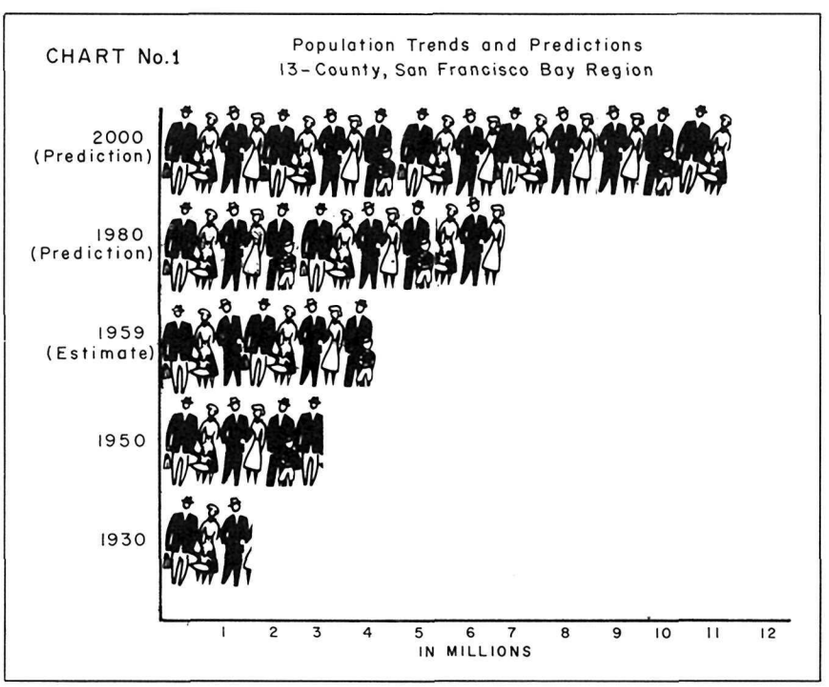
The greatest population density in the San Francisco Bay Region occurs within the vast metropolitan complex known as the San Francisco-Oakland Standard Metropolitan Area. It lies southeast of Point Reyes and rings the southern half of San Francisco Bay. The population of this metropolitan area was estimated at more than $2\frac{3}{4}$ million persons in 1959—nearly two-thirds of the resident population of the entire Bay Region in that year.

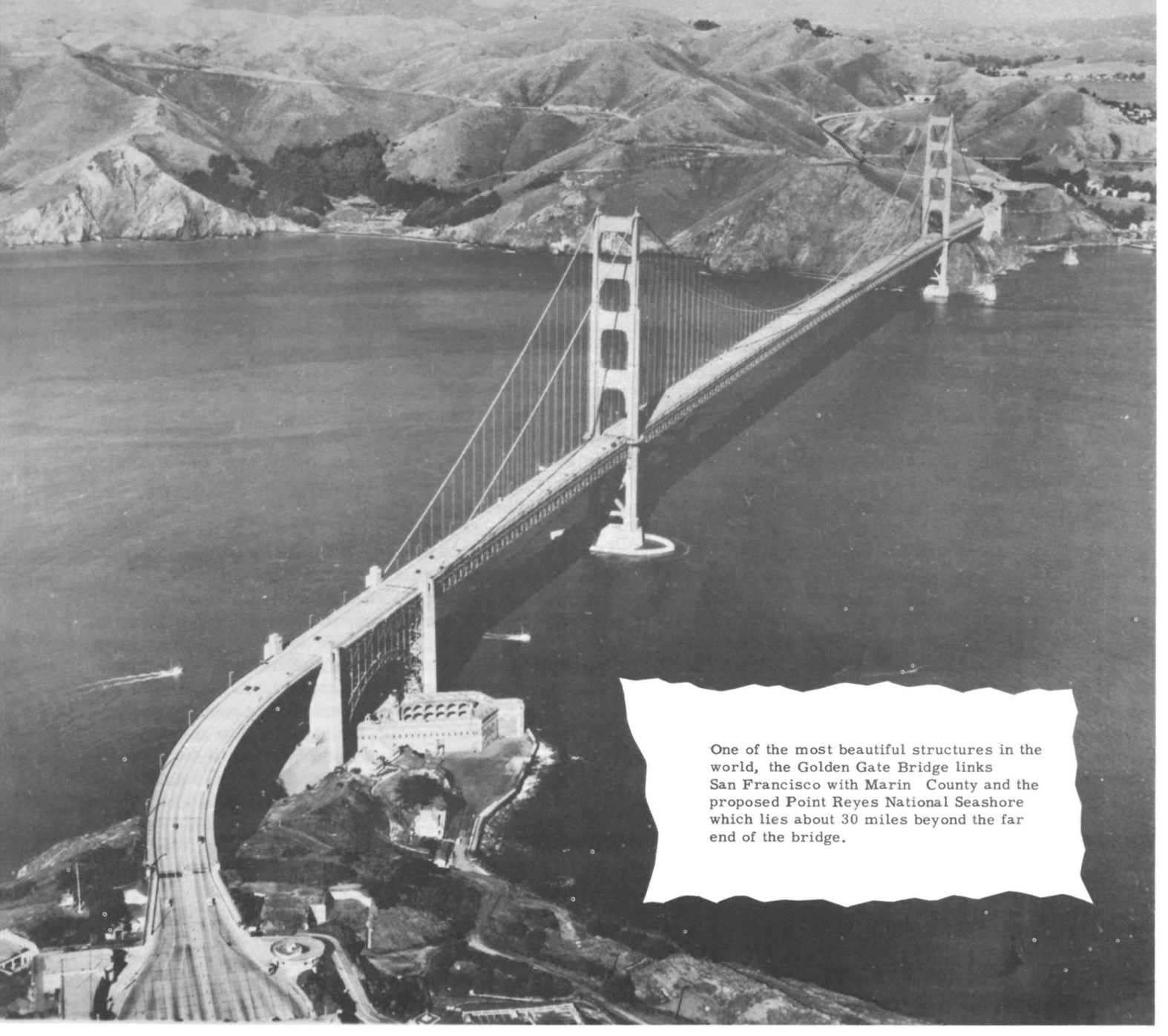
Other major population densities are located in the Sacramento Urban Area at the northeast extremity of the Bay Region, the San Jose Urban Area to the south in Santa Clara County, and the Stockton Urban Area to the south of Sacramento in San Joaquin County. Population statistics for 1959 are not yet available for these urban areas. The 1950 U.S. Census lists their combined population at slightly more than 500,000 persons.

In addition to the growth trends that have been recorded for the 9-county Bay Area and the 13-County Bay Region, several independent population studies employing various prediction methods have been made recently by such agencies as the U. S. Bureau of Census, the California Department of Finance, the San Francisco Bay Area Council, and the Bay Area Rapid Transit District. Taking into account the recorded growth trends of the Bay Region and the population predictions that have been made in the foregoing studies, it seems reasonable to anticipate that the resident population of the 13-County Bay Region will have reached at least 7,223,000 by 1980 and nearly 11,700,000 by the year 2000. Recorded trends and future predictions are shown on Chart No. 1.

The present density pattern is expected to continue throughout the period of analysis, but with added population densities developing in the East and North Bay sections of the Region.

See population map in the appendix.





One of the most beautiful structures in the world, the Golden Gate Bridge links San Francisco with Marin County and the proposed Point Reyes National Seashore which lies about 30 miles beyond the far end of the bridge.

Redwood Empire Association

Highway Access and Circulation

THE Point Reyes Peninsula is about 30 miles northwest of San Francisco and is thus centrally located in relation to California residents and to national travelers who visit the State. Present access to the Peninsula from the main arterial traffic routes is by narrow winding roads which will carry safely a limited amount of traffic only. Public travel on the Peninsula is restricted to one highway with two spur roads. Establishment of a national seashore would mean planned road circulation to open for public use portions of the Peninsula that are not now accessible to the public.

San Francisco Bay Area residents who drive to the Point Reyes Peninsula use the Golden Gate Bridge or the San Rafael-Richmond Bridge to reach U.S. Highway 101 in southern Marin County. The southern approach to Point Reyes Peninsula from U.S. 101 is via State Highway 1. It branches off the freeway four miles north of the Golden Gate Bridge, and then turns westerly to the coast which it follows to Bolinas Bay at the southern end of the Peninsula. State Highway 1 continues northerly through the Olema Valley, passes through the towns of Olema and Point Reyes Station, and continues on along the east side of Tomales Bay to northern California.

Sir Francis Drake Highway is the best road to the Pen-

insula for Bay Area residents. It branches off U.S. 101 in southern Marin County near Greenbrae, runs westerly through the county to Olema and Point Reyes Station where it enters upon and crosses the Point Reyes Peninsula and terminates at Point Reyes. Additional access from U.S. 101 is afforded by several county roads, which although slow-speed routes, are scenically interesting.

Other California residents and out-of-state visitors may use a variety of State and Federal routes to reach Point Reyes Peninsula. U.S. Highways 40 and 99 are Federal Interstate and Defense Highways. Both of these have lateral roads which when improved as planned, will provide super highways for visitors from distant points to the proposed Point Reyes National Seashore.

The completion of highways in Marin County now approved by the California Legislature as part of the California Freeway and Expressway System will connect the Peninsula with the major freeway systems of the State and Nation. Portions of the Expressway System, scheduled for completion within the next 20 years, are designated Legislative Routes and are delineated as L.R. 51, 56, 69 and 252 on the HIGHWAY ACCESS Map in Appendix. Legislative Route No. 56 calls for the improvement of California State Highway 1 to freeway standards from its junction with U.S. 101 to and beyond Point Reyes Station.

Sir Francis Drake Highway is scheduled under Legislative Route No. 67 to become another four-lane freeway. It will connect near Point Reyes Station with Legislative Route 252, originating at Novato on U.S. 101. Improvement of the present low-standard county road connecting Novato and Point Reyes Station will provide direct access to the Peninsula from points within Sacramento Valley. Legislative Route No. 51 is essentially a continuation of State Highway 1. It will extend this freeway to U.S. 101 at Santa Rosa, California. These State road construction programs would improve and speed access to the proposed Point Reyes National Seashore for Bay Area residents and visitors from more distant points both of California and of the Nation.

Public travel on the Point Reyes Peninsula is limited now to less than 15 miles of the Sir Francis Drake Highway, some 14 miles of the Pierce Point road which branches off this highway at the southern corner of Tomales Bay State Park, and a 1.5 mile spur road from the highway which leads to Drakes Beach County Park. The Pierce Point road passes the entrance to Tomales Bay State Park and continues on to a small county-maintained parking area near McClure Beach. These three points, Drakes Beach, Tomales Bay State Park, and McClure Beach, are the only public recreation areas on the Peninsula. The Point Reyes Lighthouse is open to the public, but it is reached by a long steep descent which discourages most visitors.

The suggested development for the proposed National seashore as shown on the POSSIBLE DEVELOPMENT LAYOUT sheet in this report, calls for construction of approximately 25 miles of new roads, the improvement of 40 miles of existing roads, and about 25 miles of horse and hiking trails. With these improvements, an area possessing outstanding scenic, scientific and recreation values within a short drive of one of the major metropolitan centers of the United States would be open to visitors. The southern half of the Peninsula within the proposed Point Reyes National Seashore which only a few persons are privileged to see or use, and which contains the most scenic part of the Peninsula, would become accessible to the public for the first time in more than a century.

Human History OF POINT REYES PENINSULA

THE Point Reyes Peninsula is more than a place of recreation. It is a place which increases our understanding of the past and causes us to think about the course of our future, for here is a great sweep of shore, lowlands and hills virtually unchanged since it was seen by the first explorers. Here, for those who can read it, is the scene of a vast historical pageant. Coast Miwok Indians lived on the Point Reyes Peninsula and the location of known Indian occupation zones is shown on the accompanying drawing. Their habitations along the west side of Tomales Bay, around Drakes Estero and the seaward shores evidence their dependence upon the marine animals for food.

Around the year 1500 A.D. there were probably more Indians living on the Peninsula than there are Caucasians at the present time. Doubtlessly not all of the 113 known aboriginal village sites were occupied at the same time, but the number of sites suggests a fairly heavy population. While there are not many known archeological or prehistorical sites of critical importance on the Peninsula - perhaps not over two dozen at the most - the point is that early people did utilize the Peninsula and lived there.

Here with a vivid sense of immediacy, one recalls the courage of pioneer navigators who braved the unknown Pacific Coast in their cockleshell vessels. Here one thinks of the results - good and evil - of political and religious rivalries. Here one relives the wonder of men who saw these meadows and hillsides literally moving with migrating elk and with wheeling flocks of waterfowl. Here one honors the heroism of those who braved the shattering seas in attempts to rescue the many unfortunates wrecked on this section of the coast. And here one compares the way of life of the Mexican and American ranchers, whose isolation and unhurried calm were in such vivid contrast to the urban bustle of our lives today. Triangular symbols with captions are used on the accompanying drawing to generally locate these sites of historic interest.

The crowning of Francis Drake by the Coast Miwok Indians in 1579 is depicted in this illustration. The sketch appears in a book published in Amsterdam by the 17th century geographer Arnoldus Montanus in 1671. In addition to the crowning, the picture shows the erection of the brass plaque on which Drake claimed the country for Queen Elizabeth, and, in the distance, the Golden Hinde, the ship in which Drake sailed around the world.

For the nation as a whole, the most significant part of this story relates to the possibility that Sir Francis Drake, the English seaman and the scourge of Spain, may have repaired his vessel, the "Golden Hinde", here in 1579 before starting out across the Pacific on his journey around the world. Although historians do not agree as to his exact landing place along the central California coast, Drakes Bay has long been considered as the most probable location. At any time, the remains of Drake's stone fort may be discovered, an event which would catapult the area into the ranks of the nation's outstanding historical sites, since it would mark the scene of the first known English habitation within the boundaries of the present United States.

Point Reyes figured prominently in the annals of exploration along the Pacific Coast. Drakes Bay was then, as now, a harbor of refuge sheltered from northerly winds but exposed to southern storms. Here in 1595 the Spanish explorer Sebastián Rodrígues Cermeño suffered the first recorded shipwreck in California waters when his vessel, the "San Agustín", was blown ashore near the mouth of Drakes Estero. Archeologists have recovered from Indian mounds on the shores of Drakes Estero lots of porcelain which almost surely came from the "San Agustín". Seven years later, in 1602, the expedition of Sebastián Vizcaíno, coming north from Mexico, stopped briefly near Point Reyes, giving the anchorage the name of Puerto de los Reyes or Port of the Kings.

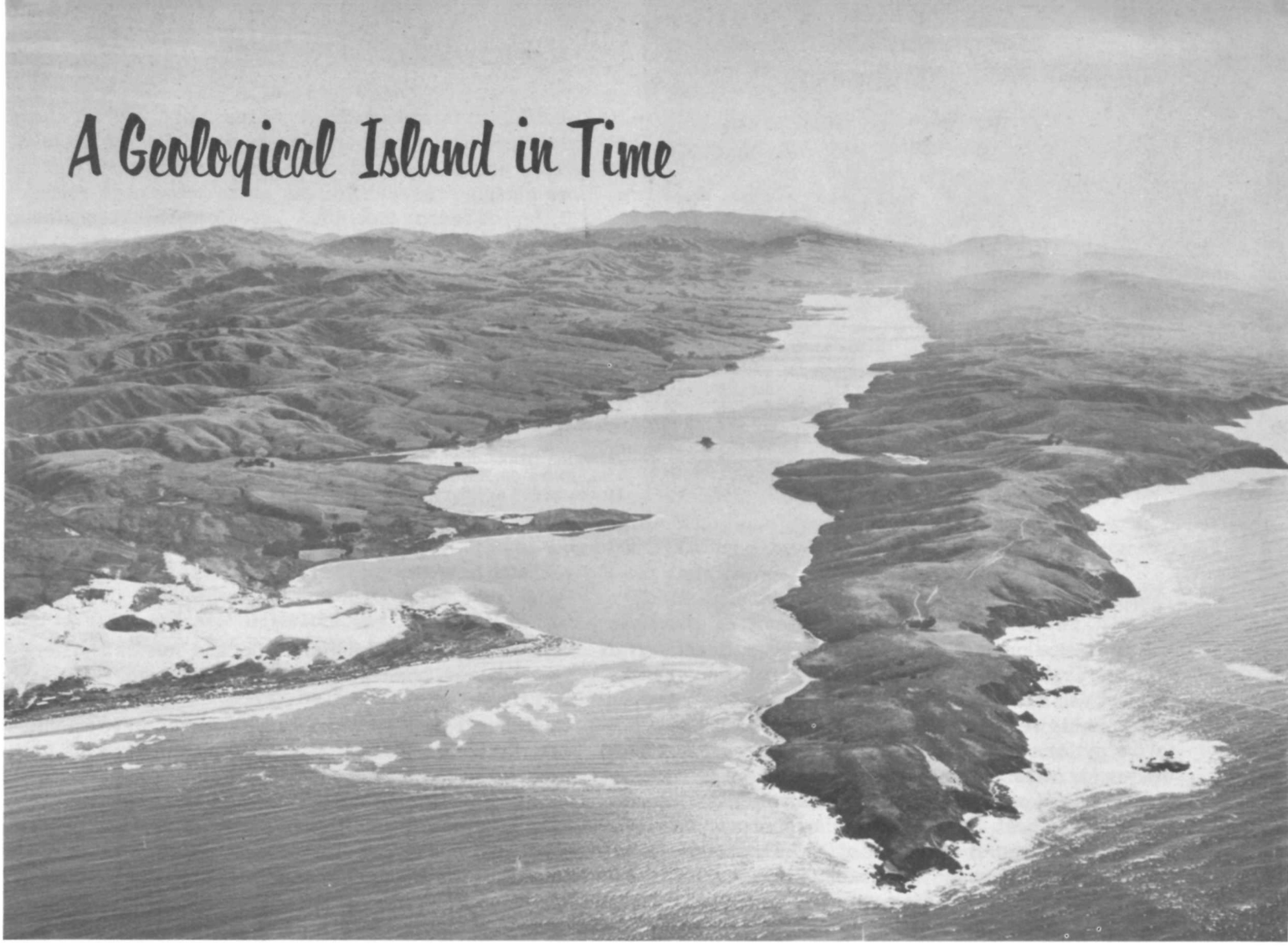
The attempt of the Spanish to establish a settlement in this port led to the discovery of one of the best natural ports in the world. The Don Gaspar de Portola expedition traveling by land up the coast from San Diego in 1769 was thwarted in its search for Puerto de los Reyes by the estero now called San Francisco Bay. Six years later and 173 years after Vizcaíno visited Drakes Bay, Juan Manuel de Ayala in the "San Carlos" made the first recorded passage through the Golden Gate. Thereafter, the anchorage in Drakes Bay was overshadowed by the Port of San Francisco.

During the early 19th century, Drakes Bay was familiar to the traders, whalers, and fur hunters of the United States, Mexico, Great Britain, and Russia and here the well-known trading vessel, the "Ayacucho" went ashore in 1841.

Several large Mexican cattle ranches were established on the Peninsula and later it became famed for its fine dairy products, as it is today. For many years the produce from Point Reyes Peninsula was transported from Drakes Estero and Tomales Bay to the San Francisco markets in shallow-draft, coastal schooners. In 1870 the Point Reyes Lighthouse was installed to protect shipping on this dangerous section of the coast, the scene of many tragic wrecks. A colorful chapter is formed by the activities of smugglers in the region during the prohibition period. During World War II artillery observation posts and beach patrols were located on the Point Reyes Peninsula to defend San Francisco.

This, in brief, is the human story told by Point Reyes Peninsula. Perhaps nowhere else on the entire California coast have the scenes of such a broad panorama of events been left so untouched by the hand of man. As an unspoiled bit of the country described by California's early visitors, it is unique. It enables us to place ourselves in the footsteps of these pioneers and to understand more vividly their reaction to the scene. And it enables us to contrast what they saw with the situation in most of the rest of California today and makes us think about the direction in which our civilization is taking us.

The National Park Service would carefully plan the location of developments and guide the recreation activities in a manner which would leave important known historic and archeological sites undisturbed so that specialists would have opportunity to study them further and recommend a course of action for preservation of important sites. It is recommended that every possible attempt be made to preserve for future study all types of archeological sites on Drakes Bay, even those of modern derivation, on the assumption that any spot indicative of aboriginal occupation may yield data pertaining to the Drake Landing question.



Clyde Sunderlund, Oakland

Tomales Bay separates the north end of Point Reyes Peninsula from the mainland. The depressed land surface beneath Tomales Bay extends southward through Olema Valley at the head of the bay and continues on under Bolinas Lagoon, not shown in the photograph. This depression delineates a short segment of the San Andreas Fault Zone.

The Point Reyes Peninsula has moved slowly northward along this fault since Cretaceous times 80 million years ago, but how far is not known. The present rate of displacement is about two inches a year. After the great San Francisco earthquake of 1906, a lateral land movement of 20 feet was recorded at the head of Tomales Bay.

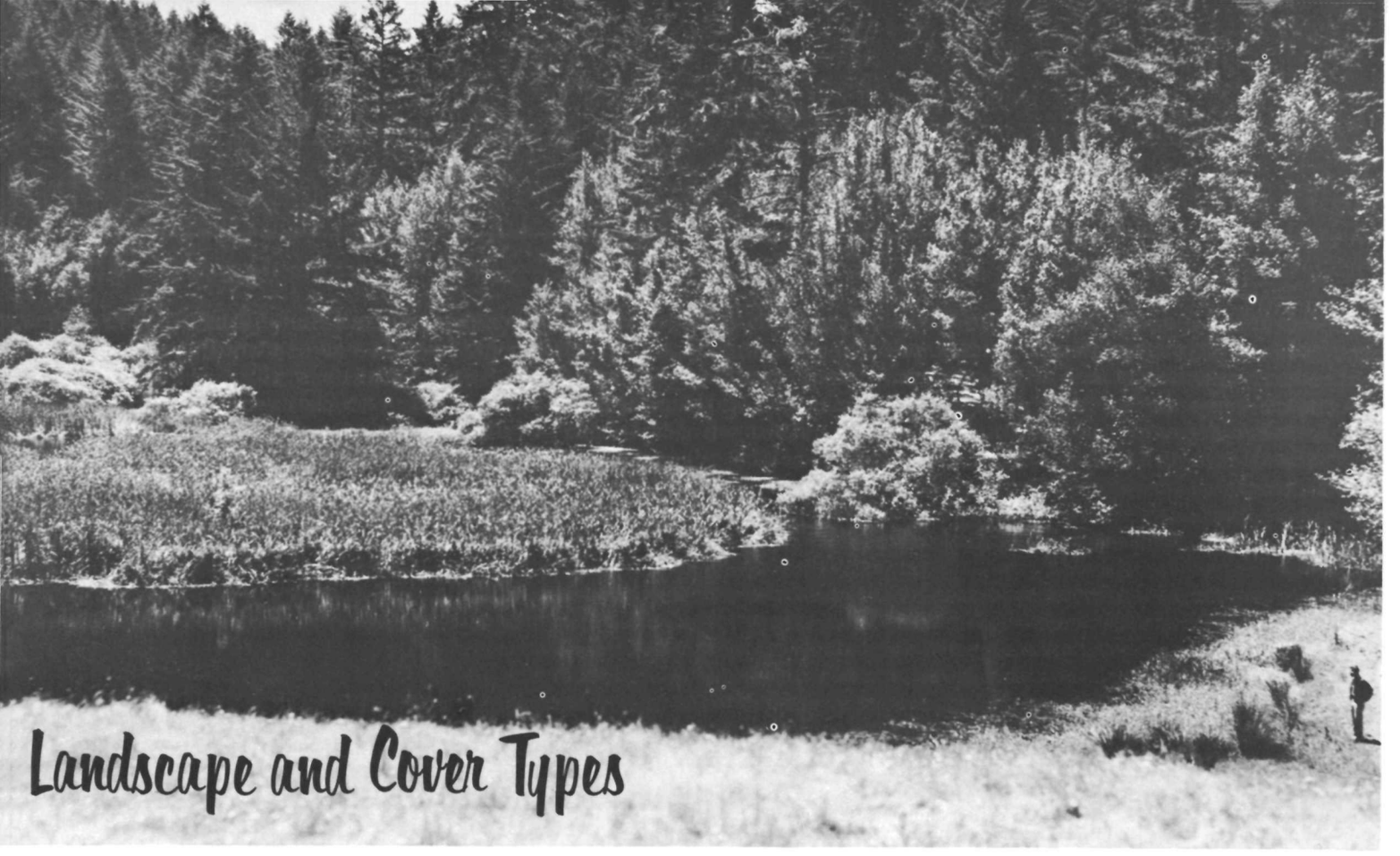
THE Geology OF POINT REYES PENINSULA

THE Point Reyes Peninsula can be conveniently divided into four topographic sections. These are from east to west: (1) the long straight depression occupied by Tomales Bay, Olema Valley and Bolinas Lagoon, (2) the high country of Inverness Ridge, (3) the rolling middleground west of the ridge and (4) the promontory of Point Reyes itself. Each of these landscapes reflects its geological environment and history.

The long narrow valley extending from Bolinas Lagoon to Tomales Bay, which separates the Peninsula from the mainland, is the location of a portion of the great San Andreas fault zone, along which the San Francisco earthquake of 1906 took place. Erosion of the shattered rock along the fault zone has produced the long straight valley. Lateral movement along the many earthquake cracks of this fault zone, including the easily identified one of 1906, has produced a marked northward displacement of the land west of the fault zone. As a result, the rocks of the Peninsula which lie to the west of the fault are completely different in type and age from the rocks of the mainland to the east; the Peninsula is an isolated geological unit.

The high country of Inverness Ridge is mostly formed by hard granite which has resisted erosion. The granite encloses areas of limestones, quartzites and schists which are the remnants of the rocks into which the granite was intruded as a molten mass. These remnants are the oldest rocks in the area.

Low rolling country of softer sands and shales connects Inverness Ridge with the promontory of Point Reyes, which is composed again of hard granite as well as younger sediments. The relation of these various strata can be seen to advantage at the Point.



Philip Hyde

WOODED UPLAND. The forest encircling Mud Lake illustrates the two types of forests on Inverness Ridge. Broadleaf trees are found in moist canyons and bordering the openings. Conifers are responsible for the name "Black Forest" which has been applied to the Peninsula uplands. Mud Lake has an interesting history. Most of the water drained out of the lake in the 1906 earthquake.

Landscape AND COVER TYPES

THE Point Reyes Peninsula is scenically and ecologically unique for the following reasons:

California's coastal climate has no counterpart in this hemisphere. The warm, dry summers and cool, rainy winters produce a Mediterranean type of climate. The ocean fogs, which play a vital part in moderating seasonal temperature variations, also create collateral climatic conditions beneath the tall trees, and they influence vegetation on the Western slopes. These peculiar climatic factors in combination with the great variations in topography and soils of the Point Reyes Peninsula have produced an extraordinary diversity of forests, brush lands, grasslands, dune vegetation and marshes.

Point Reyes Peninsula flora evidences that the Peninsula has long been the meeting ground of northern and southern California Coast Range floras. The Douglas fir forest is a southern outpost of the Northern Forest Association. In places stands of these trees around Inverness Ridge resemble in density and uniformity the forests of this species that grow far to the north. The Bishop pine forest, on the other hand, is typical of the closed-cone pine forests of coastal California which occur in isolated groves from northern California south into Lower California. Distributional relationships of other plants show that the movements of floras have been much stronger southward than northward.

The ranges of five species of plants are confined exclusively to the Point Reyes Peninsula. Two endemic Manzanitas, one having resemblances to a northern species, the other resembling a southern species, occur only on Mount Tamalpais and the Point Reyes Peninsula.

As a result of this diversified climate and plant life, the wildlife exhibits a corresponding diversity, ranging from salt-water shore birds to birds and mammals typical of dense mountain forests. One hundred and sixty-three species of birds and forty-three species of mammals have been recorded.

WOODED UPLAND. A forest of Douglas firs grows on the eastern slopes of Inverness Ridge and in some of the deeper canyons facing the ocean. Bishop pines, unique to the California Coast occur on the northern half of Inverness Ridge. A small grove of Coast Redwoods adds to the ecological variety. Mingled with the firs, or flanking them at lower levels, are groves of broadleaf trees consisting of California laurel, madrone, tanbark oak, live oak, maple and wax myrtle, with a profusion of shrubs including rhododendron, blue blossom, honeysuckle, wild

Philip Hyde

BRUSHY SLOPES. Coastal brushland is a type of chaparral. Shrubby plants, intermingled with perennial herbs, form tall, dense thickets on the moister sites. On drier, sunny hillsides the same plants are lower and more bushy. Douglas firs are invading the brushland suggesting its existence is due to recurring fires which have been suppressed by civilized man.

GRASSY LOWLANDS. Several types of grassland on the Point Reyes Peninsula are included in this category. Grass growing on a delta at the head of Drakes Estero differs from similar plant associations found on the tops of adjacent low hills. Grassland associations have been modified by cattle grazing for so long that the present vegetation is not representative of natural conditions.

Philip Hyde

Philip Hyde

DUNES AND BEACHES. Plants growing on the sandy portion of the Peninsula have adaptations which permit them to fill this niche in the scheme of nature. Persisting on the most recent geologic deposits they strive continually to hold their ground. Those washed by the highest surf, or those literally anchoring the dunes by their interlaced rootlets, differ markedly from inland species.

rose, and huckleberry. Here in thickets and tangles of down logs, a few colonies of that living fossil, the mountain beaver—which is not closely related to any other rodent—still survive. Below the ridge crest and bordering on the forest is an extensive belt of woodland, interspersed with grasslands in which the California buckeye is a common and conspicuous feature. This belt is a pleasant, hospitable place for camping and picnicking. Deer, rabbits, quail, and many species of songbirds inhabit these wooded uplands.

BRUSHY SLOPES. The brush covered slopes impart their own unique scenic quality to the upland landscape, and harbor bird species with comparably unique qualities. The coastal brush association includes thickets of a chaparral-type growth on the seaward slopes, and wind-swept plants on the maritime bluffs. In the hills and canyons, the shrubs on the moister slopes form tall, dense thickets. On the ocean bluffs plant growth is usually not so dense, the plants are lower and more compact. In the midst of the brushland, islands of Coast live oak and California laurel occur, the latter often wind-pruned. Some twenty-five species of shrubs grow on these brushy slopes. Coyote brush is a common colonizer and may occur as a pure society.

GRASSY LOWLANDS. This very extensive zone covers much of the seaward-facing lowlands, and gives to the Point Reyes Peninsula the open space, the wide dimensions, the "elbow room" for which this area, so close to the heart of San Francisco, remains uniquely valuable. A profusion of wildflowers, dominated by lupines, decorates this spacious area wherever grazing has not been too severe. Brushland clearing on the flatter hilltops, and in swales, has created artificial openings where grass prevails with the help of man. Much of the grasslands on the Peninsula may be due largely to agricultural practices. Over the years, much of the lowland has been plowed, planted to crops, and then seeded to grass. Heavy grazing for over a century has drastically altered the natural grassland complex. Possibly, the lowlands originally were covered largely with brushy plants and the grasslands are mostly man-made.

DUNES AND BEACHES. The dramatic, see-saw struggle of plants to bind the drifting sands along the Point Reyes Beach and establish themselves in spite of wind and waves is a fascinating ecological story. Many of the dune plants, particularly the lupines, produce a notable wildflower spectacle. Some of them are unique to the Peninsula.

THE MARSHES. The fresh water marshes, although of limited extent, are of great interest to plant ecologists, to bird students, and to scientists in other fields. Vernal pools behind sand dunes which have dammed drainages produce a distinctive group of spring plants. The salt water marshes are vital feeding grounds for a great variety of waterfowl, including swans, marsh birds, and shore birds, which forage the tidal pools where their food supply becomes exposed twice daily.

Climate OF POINT REYES PENINSULA

Point Reyes Peninsula climate is characterized by warm, dry summers, and cool, rainy winters. This is similar to the type of climate that prevails in the Mediterranean regions of Europe and Africa. Being located on the sea coast, the Point Reyes Peninsula is strongly influenced by the Pacific Ocean. Constant winds of moderate to strong velocity occur on the exposed headlands. The prevailing westerly winds have high humidities which accounts for the frequent fogs recorded at the lighthouse on the western extremity of Point Reyes. These winds have a moderating effect on coastal temperatures.

The U. S. Coast Guard Station located at the extreme western end of Point Reyes is the only Government operated weather observation station on the Point Reyes Peninsula. Other weather observation stations in Marin County are located at Hamilton Air Force Base, San Rafael, Kentfield, and Muir Woods National Monument. The weather at these stations is often considerably different from the Peninsula weather. It is believed therefore, that weather observations from none of these inland stations present a true picture of Peninsula weather.

The U. S. Weather Bureau and the U. S. Coast Guard have maintained weather records at Point Reyes for at least 60 years. The Coast Guard now makes six observations each day, one every four hours. A summary of weather conditions observed by the Coast Guard for the 5-year period 1949-1953 is given in Table No. 1.

TABLE NO. 1

U.S. WEATHER BUREAU DATA FOR POINT REYES LIGHTHOUSE STATION
Summary of Averages for the Period 1949-1953

	Wind Velocity		Temperature		Weather (Number of Days)			
	Max.	Ave.	Max.	Min.	Bright	Cloudy	Foggy	Rainy
Jan.	44	11	64	39	15	9	3	4
Feb.	43	11	65	40	14	5	6	3
Mar.	47	14	71	41	18	7	1	5
Apr.	43	14	68	45	13	10	6	1
May	45	13	76	43	15	7	8	1
June	45	13	80	46	15	8	6	1
July	34	11	77	48	9	5	17	0
Aug.	37	10	77	49	7	7	16	1
Sept.	36	9	86	49	9	9	12	0
Oct.	42	10	81	47	13	4	12	2
Nov.	51	11	74	46	13	6	8	3
Dec.	51	10	67	43	15	7	3	6

In summer the prevailing wind direction is northwesterly. There is a tendency for the winds to shift to the south during winter. The annual average wind velocity at the Coast Guard station on one of the most exposed points of the Cape is about 11.5 miles per hour. The annual average maximum velocity at the Station is about 43 miles per hour. November and December experience the greatest wind velocities, but these occur during southerly gales which happen infrequently. Inland from the headland at Point Reyes, and along beaches sheltered by high bluffs, the wind velocity decreases substantially.

Point Reyes and adjacent lands, especially along the 12 miles of beach on the north side of the Peninsula, almost always experience gentle to moderate breezes, even on the quieter days. Grass covered rolling hills in this vicinity offer one of the best year around opportunities in the San Francisco Bay Area for flying kites away from the danger of traffic, power lines, and other hazards.

Elsewhere on the Peninsula the climate is hospitable for swimming, picnicking, and similar warm weather activities. Drakes Beach, McClure Beach, and beaches on Tomales Bay experience heavy public use in season. Stinson Beach State Park, lying about 3 miles south of the Peninsula, had a visitation of about 500,000 people in 1959, attesting to the popularity of developed, accessible beaches in a similar climate.

The temperature extremes recorded at Point Reyes Lighthouse Station evidence the moderating influence of the Pacific Ocean. The monthly average minimum and maximum temperatures vary about 29 degrees Fahrenheit throughout the year. Owing to the persistency of the fog cover, through which it is said the sun's rays sometimes fail to penetrate for three or even four weeks at a time, Point Reyes has close to the lowest mid-summer temperature of any observation station in the United States. This unique cool and moist climate on the Point offers a welcome refuge to the visitor coming from the hot and dry Sacramento Valley, less than 100 miles away, where daytime temperatures in the summer often rise to more than 100 degrees. In the summer the Point Reyes visitor can usually experience the thrill of hearing the fog horn send its deep-throated blasts seaward as a warning to offshore ships.

These temperature records, however, apply to the climate of the Point Reyes Lighthouse Station. Much higher temperatures occur inland and especially on the beaches of Drakes and Tomales Bays and the east side of Inverness Ridge. In these places which are sheltered from the wind and where the sun's rays are reflected from the light colored sand or white colored cliffs, temperatures prevail much higher than those recorded by the U. S. Coast Guard.

Headlands of capes on the Pacific Coast and offshore islands are subjected to frequent heavy fogs. During most of the year water temperature near the coast is lower than that of the ocean farther to the west. The cooling effect of these coastal waters on the warmer, moist air moving easterly produces fog which blankets the ocean for 50 miles or more off the coast.

Summer fogs are common at the Point Reyes Lighthouse Station in the months of July, August, September, and October. The U. S. COAST PILOT published by the Department of Commerce, states that Point Reyes is often spoken of as being the actual center of heaviest and most frequent fogs on the Pacific Coast. The Coast Guard operates its Point Reyes fog signal an average of 1,493 hours per year, and one year the signal was operated 2,920 hours or the equivalent of about 122 days.

Rainfall averages about 11.6 inches per year at Point Reyes with the greatest precipitation occurring during the months of December, January and February. The summer months receive little or no rain. A few miles inland from the Point Reyes Peninsula rainfall is much greater, averaging 32 inches a year at the head of Tomales Bay, and 45 inches at Kentfield near San Rafael.

History

OF POINT REYES PENINSULA LAND OWNERSHIP

A fundamental part of the history of the Point Reyes Peninsula is the story of land ownership, beginning with grants made by the Mexican Governors of California in the 1830's and 1840's. The survey lines of these grants, as later delineated by the U.S. Surveyor General, are the basic land ownership lines of the area; some of them are still to be found on official county maps and on topographic maps issued by the U.S. Government.

The lines continue to exist because title to the lands had already been issued when the United States took over California in 1846, and because, by the terms of her treaty with Mexico in 1848, the United States guaranteed the security of property of the residents of these newly acquired territories. It was the United States, however, which determined the validity of the land grants and delineated the boundaries of the lands previously granted by the Spanish and Mexican governors of California. As we shall see, the boundaries so determined did not necessarily coincide with the lands actually occupied by the grantees.

Most of the Olema-Bolinas Valley lying between Tomales Bay and Bolinas Lagoon was controlled by the Mission San Rafael during its period of power. In the 1820's most of the Indians in the valley and on the peninsula were moved to San Rafael, leaving these lands vacant. Mission San Rafael maintained its power until 1834, and the lands over which it had control were therefore not available for settlement. The first white family of record to move onto the peninsula after secularization of the mission was that of Rafael García, a retired corporal from the garrison at San Francisco. He had been for some years a member of the military escort at Mission San Rafael. Some time in 1834 García settled in the Bolinas area. In July 1835 he asked for, and received the following year, a grant of about 8,800 acres. García named his grant the Rancho Tomales y Baulenes.

Then in 1836, James Richard Berry, in recognition of services as a colonel in the Mexican Army, was granted about 35,000 acres in the northern part of the Olema Valley and on the west side of Tomales Bay. Berry named his land the Rancho Punta de los Reyes. The relative positions of the two ranches are shown on the History of Land Ownership map in Diagram No. 1.

According to the terms of his grant, Berry could not sell or otherwise alienate his land. Nevertheless, in 1838 he did sell 8,800 acres along the shore of Tomales Bay to Joseph F. Snook, an English sea captain and naturalized Mexican citizen. Snook and Berry legalized the transaction by the process of "denouncement." This provision of the Mexican law held that if a grantee were not using all of his land, the unused portion could be "denounced" by a second party, and if the claim were found to be true, that portion would be given to the denouncer. With Snook's money already in Berry's pocket, Snook denounced the 8,800 acres, Berry assented, and the Governor gave the land to Snook in 1839. Snook's portion of the Berry Rancho is shown on Diagram No. 2.

Three months after Snook received the land officially, he traded it for some property in Southern California belonging to Antonio María Osio, a government official in Monterey, California. Osio continued to live in Monterey, establishing a resident foreman on the northern rancho. Then in 1840, Osio asked for a grant of the sobrante, or remainder, of the Peninsula, and in 1843 it was given to him. In the meantime Rafael García's brother-in-law, Gregorio Briones, moved on to the land east of Bolinas Lagoon and southerly along the coast. The holdings in that year are shown on Diagram No. 3.

Boundaries of land grants were rarely clearly defined in Spanish and Mexican California; there was plenty of land for all, and in spite of generally vague property designations, disputes were infrequent.

Nevertheless, because García, Berry, Osio, and Briones were not actually using the lands granted them, a dispute arose in 1844. García had moved up the Olema Valley, crowding Berry into Osio's lands, and Gregorio Briones had come into the land vacated by García. The relative positions occupied by the rancheros are shown on Diagram No. 4, which is based on a report of the fiscal, or Government attorney, in Monterey, December 28, 1844, when the three rancheros sought the assistance of the Mexican Government to settle their boundaries. Following the American conquest of California in 1846, Osio became dissatisfied with the new government, and in 1852 he moved his family to Baja California, selling his land - the Snook portion of the Berry rancho, and the sobrante - to an American resident of Monterey, Andrew Randall. Randall began the long legal process of establishing the validity of title through the United States Land Commission and the Federal Courts, but died before the process was completed. The rancho was sold by the sheriff of Marin County in satisfaction of a judgment, and eventually was purchased by the San Francisco law firm of Shafter, Shafter, Park and Heydenfeldt. The firm also acquired title to the Berry Rancho, and the Shafters, having bought out their partners, were owners of most all of the Peninsula, as shown on Diagram No. 5.

Although the Shafter brothers had sold a 2,200 acre ranch on Tomales Point to Solomon Pierce in 1858, they and their heirs kept a tight hold on almost all of the remainder of the Peninsula for over 60 years.

As Diagram No. 6 indicates, in 1869 lands jointly owned by Oscar L. and James McM. Shafter were divided into six parcels. The Shafter brothers each retained two and allotted two parcels to Charles Webb Howard, the son-in-law of Oscar Shafter.

The west end of Point Reyes was sold to the United States, and the existing lighthouse was built there in 1870.

In 1889, several small tracts were sold by James Shafter for summer cottages in the Inverness area. Other than this subdivision, the lighthouse reservation, and the Pierce ranch, the Shafter-Howard families retained ownership of their ranches until 1919. In that year the heirs of Charles W. Howard sold their holdings to John Rapp, who in turn sold the ranches to tenant farmers. In 1939 the James McM. Shafter and Oscar L. Shafter estates on the Peninsula were sold, as is shown on Diagram No. 7.

The first ranchers who leased land from the Shafters did not stay long. A comparison of the U. S. Census of 1860 and 1870 shows a complete population change in the Point Reyes township in this decade. The names of only two ranchers listed in the census of 1880 are found in the Marin County Great Register of 1896. Some of these later ranchers lived on the Peninsula for longer periods; for instance James McClure, a native of Ireland, was naturalized in San Rafael in 1896 and that year was a registered voter in the Point Reyes precinct. He was still living on the Peninsula in 1919, the year he bought a ranch from John Rapp south of Abbotts Lagoon. His wife, Margaret McClure and two sons, David and George, now live on the old Pierce ranch.

Thus it was not until relatively recent years that individual ranchers have been able to own their own land on the Peninsula. The present pattern of land holdings is illustrated on Diagram No. 8.

PRESENT

Land Ownership and Use

Essentially all of Point Reyes Peninsula proposed for inclusion in the national seashore is privately owned. It passed into private ownership before California became a state. Most of this land was later acquired by the Shafter family who held it until 1919 when a few of the present ranch owners purchased their lands. The majority bought in 1939 or later. Some of the persons listed in Table 2 purchased lands only a few years ago.

Sixty-two persons or corporations have properties within the proposed boundary. Twenty-six of these properties are small tracts ranging in size from a few hundredths of an acre to 14 acres. They account for a total of 73 acres. Ninety-nine percent of all the lands on the Peninsula suggested for seashore status is owned by 25 persons or corporations. Six of these 25 properties contain 25,468 acres which constitutes 48 percent of all the land in the proposed seashore.

Federal property within the exterior boundaries of the proposed seashore includes three parcels. The old U.S. Naval Compass Station, comprising 3.4 acres, is one parcel. Another is the Point Reyes Lifeboat Station which contains 12.21 acres that was conveyed to the United States in 1913 by the Howard family for a life-saving station. Nearly 10 of these 12 acres are rights-of-way for roads which provide access to the Lifeboat Station from the Sir Francis Drake Highway. The third parcel is the 120-acre lighthouse reservation on Point Reyes. It is not contemplated that these lands would be acquired for public seashore use unless so requested by the Navy or Coast Guard.

The Marin County Drakes Beach Park of 52.12 acres and the contiguous Drakes Historical Monument of 2.14 acres would be included in the proposal, if agreeable to the County.

Uses of land as of April 1960 within the boundaries of the proposed Point Reyes National Seashore consist mostly of dairy and beef cattle ranching. Lands owned or leased by dairy ranchers total about 19,000 acres, while lands used for grazing beef cattle total about 23,000 acres. About half (9,600 acres) of the lands comprising the dairy ranches are proposed for lease-back in the Ranching Area; the other half are in the suggested PUBLIC USE AREA. Some 6,000 acres of the beef cattle ranches are within the RANCHING AREA with 17,000 acres in the PUBLIC USE AREA.

Lands included in both dairy and beef cattle ranches are not all suitable for grazing. There are approximately 3,000 acres of sand dunes and sea cliffs which furnish little or no forage for cattle. Practically all of these poor grazing lands have been included in the PUBLIC USE AREA. At least half of the 12,000 acres of densely forested land in the proposed national seashore are designated above as beef cattle ranches. Parts of both dairy and beef cattle ranches are covered with brush especially in the steeper slopes where very little grass grows or is available to cattle.

Considered here as dairy and beef cattle ranches are the Radio Corporation of America and American Telephone and Telegraph properties. The amount of land used for the radio receiving stations and the areas leased for cattle grazing has not been determined. Eighteen of the 25 ranches in the proposed seashore are operated by lessees.

TABLE NO. 2 - PRESENT LAND OWNERSHIP

Proposed Point Reyes National Seashore

KEY NO.	OWNER	PUBLIC USE AREA	RANCHING AREA	TOTAL ACREAGE
1.	American Tel.&Tel.Co.	160.13	361.70	521.83
2.	Barnes, Fred H.	0.58	0	0.58
3.	Benevenga, Emma K.	0 .04	0	0.04
4.	Blair, Francis P.	1.35	0	1.35
5.	Blanchard, Russell H.	0.34	0	0.34
6.	Calif. Pacific Title Co.	252.69	596.26	848.95
7.	Chase, Richard D.	12.10	0	12.10
8.	Collins, H. A.	2.00	0	2.00
9.	County of Marin	54.87	0	54.87
10.	Danielson, Norman	1.45	0	1.45
11.	Gallagher, Edward	577.91	1,078.36	1,656.27
12.	Gallagher, Thomas	1,053.3	0	1,053.3
13.	Ghisletta, Ernest	162.78	1,077.22	1,240.00
14.	Gottschalk-Sieroty Co.	90.	0	90.
15.	Grossi, D.	120.17	2,624.83	2,745.
16.	Hagmaier, Daniel P.	499.04	0	499.04
17.	Hall, William T.	1,211.41	0	1,211.41
18.	Heims, Edward H.	273.50	841.50	1,115.
19.	Hoefler, Otto	1.4	0	1.4
20.	Holter,Malone,Richards	63.0	43.0	106.
21.	Jensen, Eileen C	1.0	0	1.0
22.	Jensen, Mary D.	5.	0	5.
23.	Kehoe, James V.	550.29	712.73	1,263.02
24.	Kelham, Grace H.	7,714.66	0	7,714.66
25.	Kilkenny, Lillian H.	18.1	0	18.1
26.	King, Charles D.	1.02	0	1.02
27.	Lowman, Malden C.,Jr.	0.56	0	0.56
28.	Lupton, Earl L.	0.95	0	0.95
29.	McClure, James	735.21	956.76	1,691.97
30.	McClure, Margaret	2,536.76	0	2,536.76
31.	McDonald, Morton	0.75	0	0.75
32.	Marshall, Robert D.	452.40	1,406.16	1,858.56
33.	Mendoza, Zenna	2,437.79	0	2,437.79
34.	Menzies, R.H.	3.22	0	3.22
35.	Murphy, Anna J.	1.51	0	1.51
36.	Murphy, Leland S.	1,085.29	1,927.53	3,012.82
37.	Murray, Blaine, Jr.	8.78	0	8.78
38.	Nunes, George P.	435.20	1,037.20	1,472.4
39.	Onslow, Ford	0	76.30	76.30
40.	Ottinger, Millard R.	0	4,040.43	4,040.43
41.	Parker, Alan B.	1.31	0	1.31
42.	Pt. Reyes Land & Dev.Co.	406.4	0	406.4
43.	Powers, John J.	3.5	0	3.5
44.	Radio Corp. of America	396.18	1,077.74	1,473.92
45.	Righetti, Ethel	80.	0	80.
46.	Santori, Frank	0.50	0	0.50
47.	Schluckebier, Ludwig	1.	0	1.
48.	Scoville, Loren P.	4.51	0	4.51
49.	Silveira, Christina T.	0.61	0	0.61
50.	Smoot, S. A.	84.	0	84.
51.	Spenger, Frank	9.06	0	9.06
52.	Stewart, Boyd	889.61	0	889.61
53.	Teixeira, Joseph F.	230.24	0	230.24
54.	Tevis Land & Livestock Co.	3,605.20	0	3,605.20
55.	The Golden Rule Church	3,348.22	0	3,348.22
56.	Turney, Sayles A.	709.53	2,211.47	2,921.00
57.	U.S.Pt. Reyes Lifeboat Sta.	12.21	0	12.21
58.	U.S. Naval Compass Sta.	3.4	0	3.4
59.	U.S. Pt. Reyes Lighthouse	120.	0	120.
60.	Vedanta Society	2,026.69	0	2,026.69
61.	Ward, John F.	0.70	0	0.70
62.	Wistar, Richard	14.43	0	14.43
	Totals	32,473.85	20,069.19	52,543.04

Boundaries

SUGGESTED USE ZONES

Recreation lands for public use, ranch lands for dairy farms, and expansion areas for established communities consitute major use zones of the national seashore proposal for the Point Reyes Peninsula. Additional uses include the Point Reyes Lighthouse, the Point Reyes Lifeboat Station, the fishing and oyster industries, and the radio receiving installations.

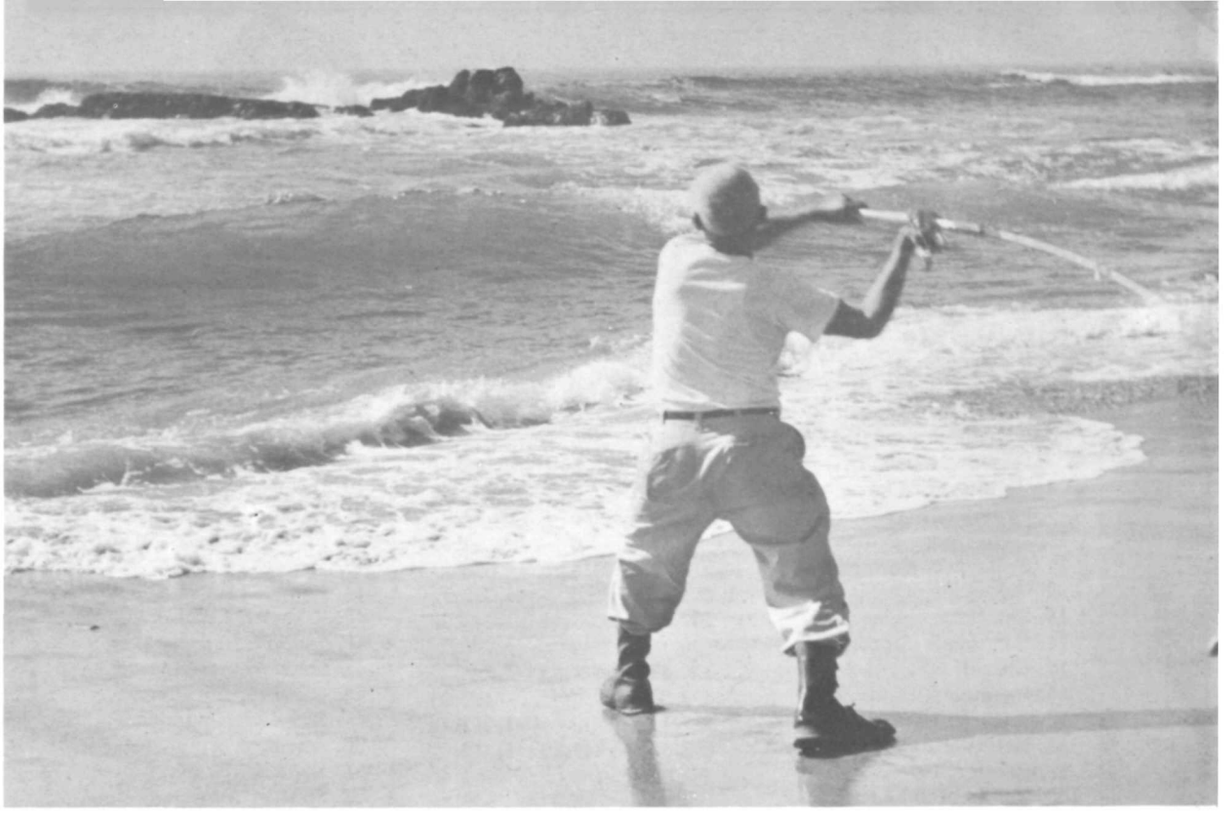
Point Reyes Peninsula contains roughly 100 square miles or 64,000 acres. The suggested PUBLIC USE AREA for recreation would contain about 33,000 acres, the RANCHING AREA about 20,000, and the established communities with their expansion areas approximately 11,000 acres.

The majority of the wooded uplands on the Peninsula are included in the PUBLIC USE AREA because of their high recreation values, and because the forest and hills should be protected from additional timber cutting and resulting soil erosion. The southern part of the PUBLIC USE AREA accounts for more than half of the recreation use zone. Three-fourths of this land is wooded or brush-covered. This part of the Peninsula includes the high Inverness Ridge and the freshwater lake region.

Beef cattle ranches in the PUBLIC USE AREA total about 17,000 acres, and provided grazing for approximately 1,500 head of cattle in the spring of 1960.

All of the lands of three dairy ranches in the PUBLIC USE AREA on that portion of the Peninsula south and west of Drakes Estero eventually would be required for recreation. If the national seashore were established, heavy public use on both sides and around the southern end of the Peninsula would materially interfere with the use of the land for dairy ranching. Any attempt to allocate the lands for both recreation and ranching would be unfair to both seashore visitors and the ranchers.

Boundary lines for the PUBLIC USE AREA have been drawn so as to interfere as little as possible with the dairy and beef ranches. A large portion of these ranch lands consists of terrain unsuitable for cattle grazing. A narrow strip along the coast between Point Reyes and Tomales Point, for instance, is covered with dune sand. Much



Surf fishing from the beaches, deep sea salmon trolling in Drakes Bay, abalone fishing on reefs or rocky shores, and clamming on tide flats are sports which could be enjoyed by fishermen if the shores of the Peninsula were accessible to the public.

of the narrow strip of land proposed for recreation which encircles Drakes Estero consists of cliffs or steep hillsides covered with brush. Practically all of the east side of Inverness Ridge, the majority of the top, and a large share of the western slope are so densely forested and covered with brush as to furnish relatively little forage for livestock.

The RANCHING AREA of about 20,000 acres consists primarily of dairy lands and it is proposed that they should be leased back to the ranchers for continuance of that type of land use. Within the RANCHING AREA, ten dairy ranches run approximately 3,600 head of dairy stock with about half of them in active milk production. Six ranches in this area now raise a reported 2,000 head of beef cattle. At least two of the latter ranches were formerly dairy ranches and could be used again for production of milk. Included as ranches are the properties of the Radio Corporation of America and the American Telephone and Telegraph Company. Parts of both of these properties are leased to tenant ranchers - one of whom operates a dairy ranch; the other raises beef cattle. Half of the dairy ranches in the RANCHING AREA are operated by tenants; about half of the beef cattle ranches are run by tenants or close relatives of the owners.

Point Reyes Lighthouse, which has been an aid to navigation for nearly a century, and the Point Reyes Lifeboat Station would continue to be operated by the U.S. Coast Guard. Both of these installations have fascinating histories and stories which could show by proper interpretive devices the role of the United States Government in guiding ships and in saving the lives of sailors.

The commercial fishing industry on Point Reyes could contribute significantly to public enjoyment of the proposed seashore. Continuation of fishing, expansion of facilities to include sea-food restaurants, markets, and charter-boat service for deep sea fishing, would be activities compatible with the seashore recreation area concept. Consideration is being given by other public agencies to the construction of a jetty from the eastern end of Point Reyes which would make a harbor of refuge for pleasure craft. The presence of a safe anchorage near good fishing waters, especially when salmon are running, and a refuge when unexpected storms make the Golden Gate hazardous for small craft, would permit a significant increase in the use of these waters by boats berthed in San Francisco Bay. Launching ramps within the harbor of refuge would also permit smaller boats to fish Drakes Bay.

The oyster industry in Drakes Estero would be benefited by establishment of the proposed national seashore. Pollution of these waters, which would occur if the surrounding land were subdivided and occupied, would put the oyster operation out of business. A restaurant specializing in selling and serving fresh oysters and other sea foods would add another recreation attraction to the proposed seashore. Additionally, culture of oysters is an interesting industry which presents exceptional educational opportunities for introducing students to the field of marine biology.

Included in the PUBLIC USE AREA is the ocean beach fronting the American Telephone and Telegraph Company and the Radio Corporation of America properties. No road would be built between the receiving stations and the ocean. No vehicles would be allowed on the beach, nor power boats on Abbotts Lagoon. Sir Francis Drake Highway would be relocated in order to remove highway traffic from the immediate vicinity of the radio stations. Retention of the ranching area in its present-day agricultural use would preclude electrical interferences which would occur if the Peninsula were subdivided.

Philip Hyde

BEACH USE. Hearts Desire Beach in Tomales Bay State Park is characteristic of several beaches within the proposed seashore. A similar but larger beach in Tomales Bay is suggested for development to provide for the usual activities associated with beach recreation.

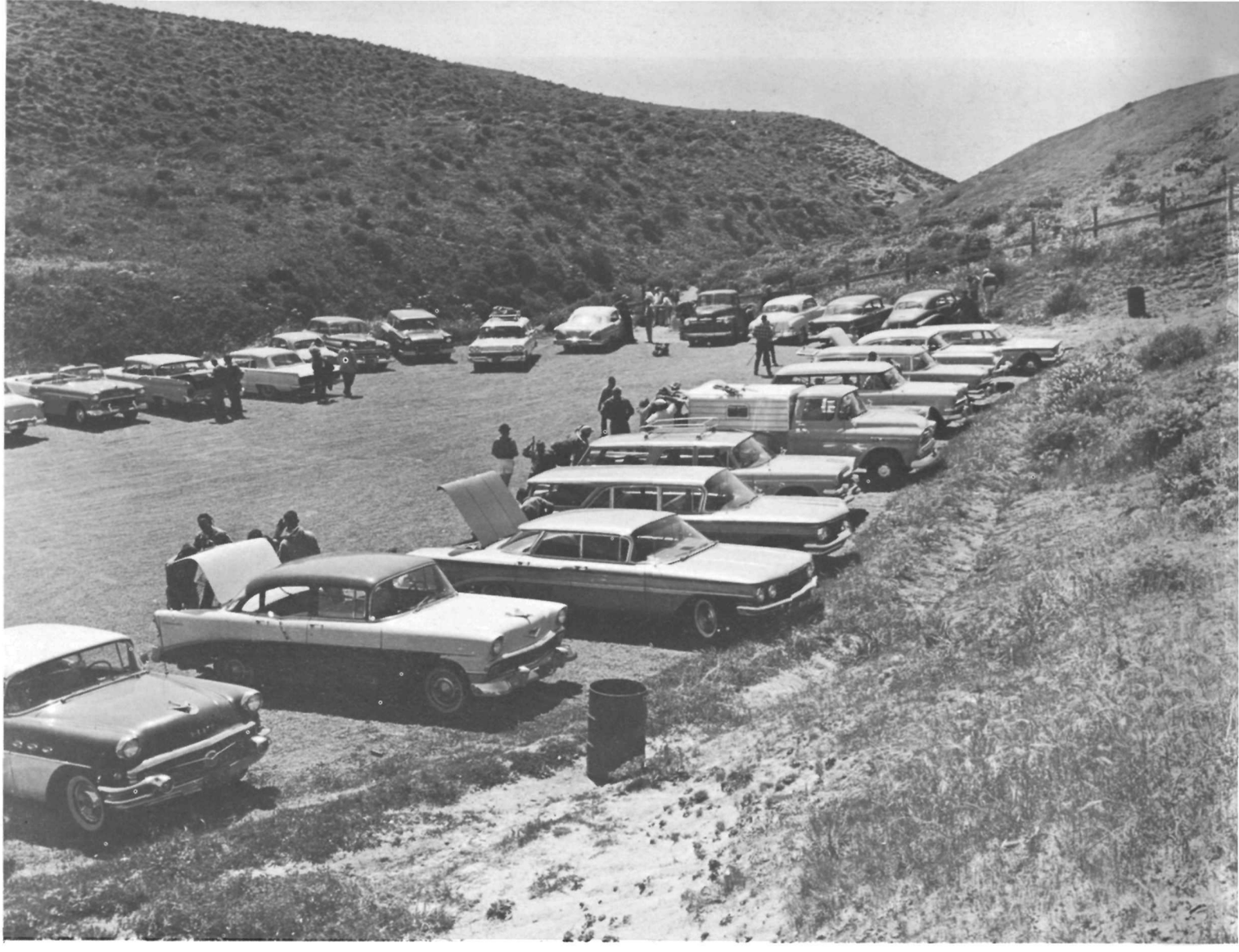
POSSIBLE
Development Layout

THE accompanying drawing shows in stippled pattern the RANCHING AREA of 20,000 acres, and the adjoining PUBLIC USE AREA of 33,000 acres. Also shown are Tomales Bay State Park, the U.S. Coast Guard facilities, and the community areas of Bolinas, Inverness, and Inverness Park, which are excluded from the national seashore proposal.

Developments would be planned to avoid the RANCHING AREA insofar as that is possible. The roads would traverse the RANCHING AREA to some extent, of course, and would be needed not only by the public but by the ranchers as well. There are a number of existing roads in that area, and it is felt that ultimately the road system most satisfactory for all concerned would probably be somewhat different from the road system presently in use. It is believed that there would be a total of about 25 miles of new roads within the proposed national seashore, and about 40 miles of improved existing roads. The horse and hiking trails, either new or improved, would total approximately 25 miles. The trail system would include short stretches of trail which would be necessary to provide for public access to the beaches from nearby parking areas at numerous points along the coast. Also there would be a number of miles of hiking trails and horse trails in the interior of the area..

Beach developments would consist of bath houses, shelters, comfort stations, food concessions, picnic facilities, potable water and parking areas. One major development of this kind would be possible at Drakes Beach on the immediate shores of Drakes Bay, and a second major development could be located in the Tomales Bay area. It is believed that most of these facilities would be developed and operated by concessioners.

Picnic areas would be developed at five major locali-



Philip Hyde

BEACH ACCESS. This parking area built by Marin County on the Pierce Ranch provides public access across private land to McClure Beach. Planned development of roads in the proposed seashore calls for parking areas that would make many beaches accessible to seashore visitors.

ties, to accommodate a total of about 2,000 people at one time.

The proposed campgrounds represent probably the only overnight accommodations which should be developed, in the opinion of the planners. The nearby communities are so close, and there is such a fine opportunity for them to improve their public accommodations in caring for many seashore visitors, that it hardly seems justifiable to consider major overnight accommodations such as hotels and motels within the proposed national seashore itself. The total campground facilities contemplated would be 500 units in three major centers—Inverness Ridge, Drakes Estero, and the Bolema Club area. It is believed that exceedingly attractive campgrounds could be developed in these areas.

Riding stables could be developed on the Bear Valley Ranch, utilizing existing barns and corrals which are near the proposed entrance to the seashore area.

SACRAMENTO COUNTY

SAN JOAQUIN COUNTY

YOLO COUNTY

SOLANO COUNTY

LAKE BERRYESSA

NAPA COUNTY

CONTRA COSTA COUNTY

ALAMEDA COUNTY

SONOMA COUNTY

SAN FRANCISCO COUNTY

SANTA CLARA COUNTY

MARIN COUNTY

100 MILES

75 MILES

50 MILES

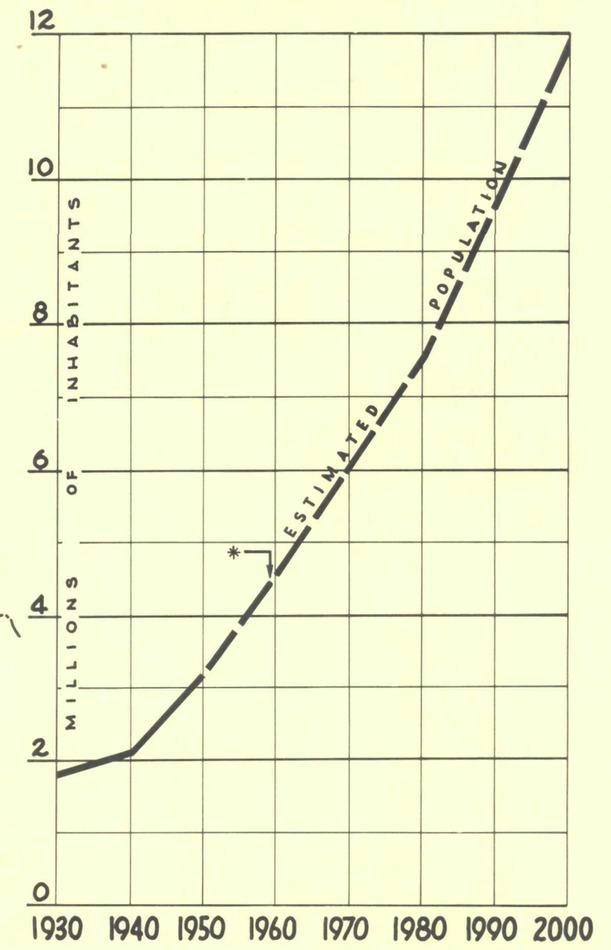
25 MILES

SAN MATEO COUNTY

SANTA CRUZ COUNTY

POINT REYES

NORTH



* 1959 ESTIMATED POPULATION BY CALIF. DEPT. OF FINANCE

● EACH DOT REPRESENTS 1000 PEOPLE - 1959 ESTIMATE

PROPOSED POINT REYES NATIONAL SEASHORE

PRESENT AND PROJECTED POPULATIONS

UNITED STATES DEPARTMENT OF THE INTERIOR • NATIONAL PARK SERVICE

D&M. 12/60

TO HEALDSBURG

TO KELLOGG

TO MADISON

TO WOODLAND

TO FOLSOM

TO ROSS

THIS SECTION NOT INCLUDED IN STATE FREEWAY SYSTEM

SACRAMENTO

SANTA ROSA

SEBASTOPOL

L.R. 51

VALLEY FORD

NAPA

PETALUMA

TO SAN ANDREAS

McCLURE BEACH

L.R. 56

L.R. 252

NOVATO

LODI

POINT REYES STATION

NICASIO

OLEMA

VALLEJO

SIR FRANCIS DRAKE HIGHWAY

L.R. 69

DRAKES BEACH

POINT REYES

PITTSBURG

MARTINEZ

SAN RAFAEL

L.R. 56

TO SONORA

RICHMOND

10 MILES

PACIFIC OCEAN

BERKELEY

STOCKTON

OAKLAND

ALAMEDA

SAN FRANCISCO

TRACY

HAYWARD

LIVERMORE

SAN BRUNO

MODESTO

SAN MATEO

TO TURLOCK

REDWOOD CITY

PALO ALTO

TO SAN JOSE

25 MILES

50 MILES

75 MILES

100 MILES

NORTH

0 1 2 3 4 5

SCALE IN MILES

LEGEND

- INTERSTATE & DEFENSE HIGHWAYS
- U.S. HIGHWAYS
- STATE HIGHWAYS
- L.R.56 LEGISLATIVE ROUTES

"THE CALIFORNIA FREEWAY SYSTEM"
A REPORT BY THE DIVISION OF HIGHWAYS
DATED SEPTEMBER 1958

PROPOSED POINT REYES NATIONAL SEASHORE
HIGHWAY ACCESS

UNITED STATES DEPARTMENT OF THE INTERIOR • NATIONAL PARK SERVICE 12/60

BODEGA BAY

LOWER PIERCE RANCH

UPPER PIERCE RANCH BUILDINGS. THE RANCH WAS SOLD TO SOLOMON PIERCE IN 1858.

APPROXIMATE SITE OF THE CABIN OF JOSEPH F. SNOOK WHO WAS GRANTED PART OF RANCHO PUNTA DE LOS REYES IN 1839.

APPROXIMATE SITE OF THE ADOBE BUILDINGS OF ANTONIO MARIA OSIO, WHO WAS GRANTED THE RANCHO PUNTA DE LOS REYES (SOBRANTE) IN 1843.

SHIPS WRECKED IN TOMALES BAY & BODEGA BAY

OXFORD	1852
ANGLO-AMERICAN	1861
EUROPEAN	1861
MARIN	1861
HANNAH M. BOURNE	1868
HENRIETTA	1868
HAZE	1869
H. CAROLINE	1874
LAMMERMOOR	1882
ALBION RIVER	1903
VOLUNTEER	1906

SHIPS WRECKED ON POINT REYES BEACH

SEA NYMPH	1861
NOVICK	1863
LABOUCHERE	1866
WARRIOR QUEEN	1874
ERIN'S STAR	1880
HADDINGTONSHIRE	1885
COPPER QUEEN	1903
FRANCOIS COPPEE	1903
TALLAC	1910
SAMOA	1913
ALBERT	1919
ARAKAN	1920
TAI VIN	1934

SHIPS WRECKED ON POINT REYES

MONTEREY	1862
GEO. P. HAUB	1876
SELMA	1877
RACHEL	1895
J. EPPINGER	1898
ANNIE E. SMALE	1910
SELJA	1910
JOHN D. SPRECKELS	1913
YOSEMITE	1926
HENRIETTA	1927
HARTWOOD	1929
RICHFIELD	1930
MUNLEON	1931

TOMALES BAY

TOWN OF MARSHALL FIRST SETTLED 1867. POST OFFICE ESTABLISHED 1872.

INVERNESS SUBDIVIDED BY JAMES McMILLAN SHAFTER IN 1889.

PIERCE POINT TRAIL

"I" RANCH

"H" RANCH

"M" RANCH

TRAIL TO TOMALES 1854

VISION RANCH

PIEDMONT RANCH

TOWN OF POINT REYES STATION FORMERLY OLEMA STATION ON THE NORTH PACIFIC COAST RAILROAD, POST OFFICE ESTABLISHED 1882.

LIMESTONE QUARRY

SUNNYSIDE RANCH

PROBABLE SITE OF THE BUILDINGS OF JAMES RICHARD BERRY 1836.

TOWN OF OLEMA, POST OFFICE ESTABLISHED 1859

SCHOONER LOADING SITES

HORN RANCH

GLENBROOK RANCH

MUDDY HOLLOW RANCH

TRAIL TO SAN RAFAEL 1854

LAGUNA RANCH

APPROXIMATE SITE OF RAFAEL GARCIA ADOBE HOUSE BUILT 1842.

NEW ALBION RANCH

PIG RANCH

LIME KILNS AND QUARRY 1852

DRAKES HEAD RANCH

DRAKES ESTERO

POINT REYES TRAIL NO. 1

"D" RANCH

SITE OF SAWMILL AND SETTLEMENT OF WOODVILLE 1851

APPROXIMATE SITE OF GREGORIO BRIONES ADOBE HOUSE, AND PROBABLE SITE OF THE HOUSE OF RAFAEL GARCIA 1835.

DRAKES BAY (PUERTO DE LOS REYES)

FIRST RECORDED SHIPWRECK ON THE CALIFORNIA COAST WAS THE SAN AGUSTIN IN 1595. GOODS SALVAGED FROM THE WRECK ARE FOUND IN INDIAN OCCUPATION SITES.

BOLINAS LAGOON

TOWN OF BOLINAS, POST OFFICE ESTABLISHED 1863.

GRANITE QUARRY 1854

POINT REYES BEACH

POINT REYES

POINT REYES LIGHTHOUSE ERECTED IN 1870

SHIPS WRECKED IN DRAKES BAY

SAN AGUSTIN	1595
AYACUCHO	1841
SARAH LOUISE	1865
NAHUMKEAG	1867
S.F. BLUNT	1868
MOSE	1878
FREE TRADER	1878
LURLINE	1903
SAN GABRIEL	1907
CHARLES R. WILSON	1910
COL. BAKER	1913
SAN DOMENICO	1935

SHIPS WRECKED ON DUXBURY REEF

DUXBURY	1849
S.S. LEWIS	1853
MONTANA	1867
PRINCE ALFRED	1874
WESTERN SHORE	1878
IAQUA	1901
POLARIS	1914
HANALEI	1914

DUXBURY REEF

SIR FRANCIS DRAKE LANDED SOMEWHERE ON THE CENTRAL CALIFORNIA SHORES IN 1579.

LEGEND

GENERAL AREA OF INDIAN OCCUPATION

HISTORIC SITE

NORTH

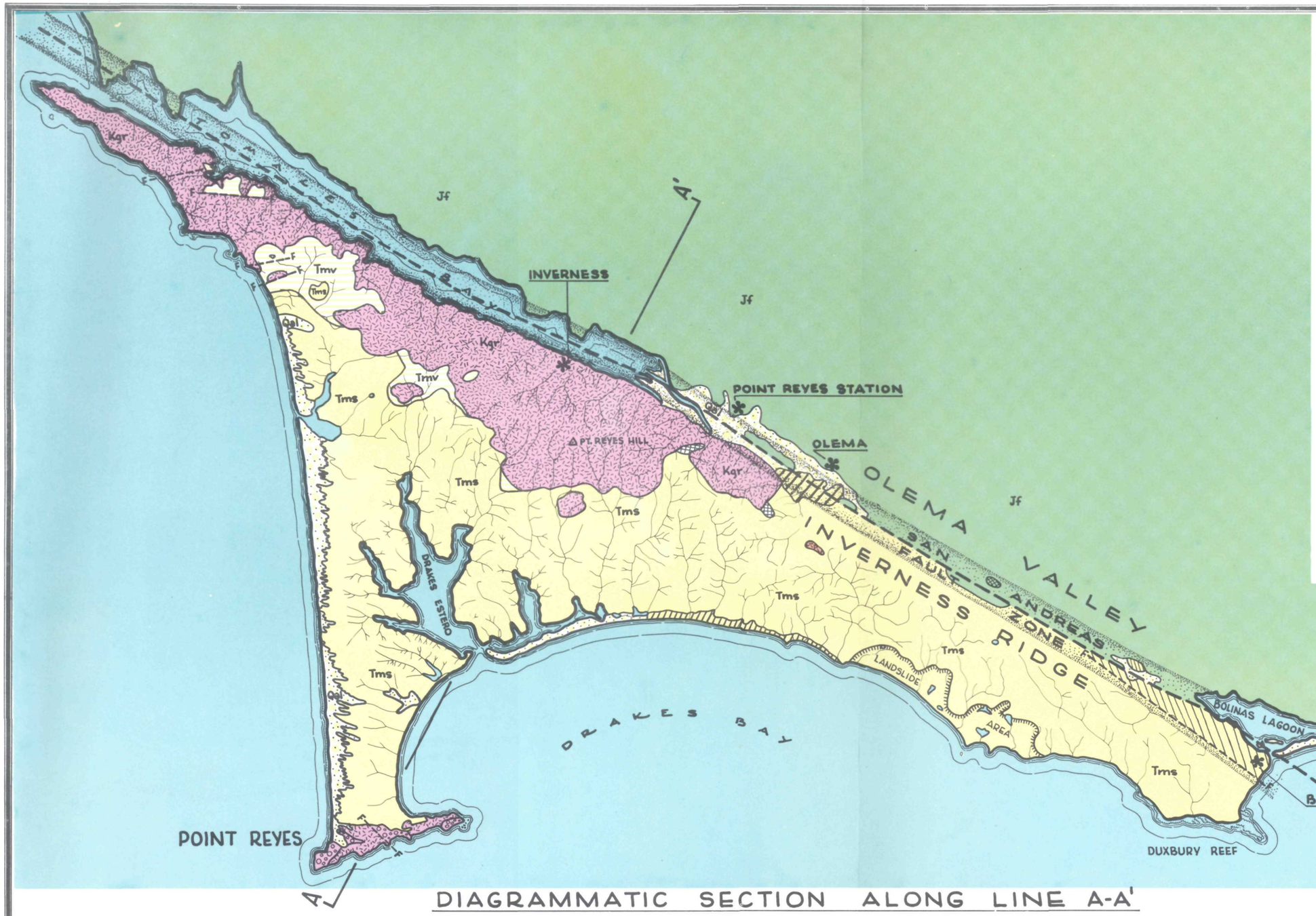
0 1 2 3 4 5

SCALE IN MILES

PROPOSED POINT REYES NATIONAL SEASHORE

HISTORIC AND PREHISTORIC SITES

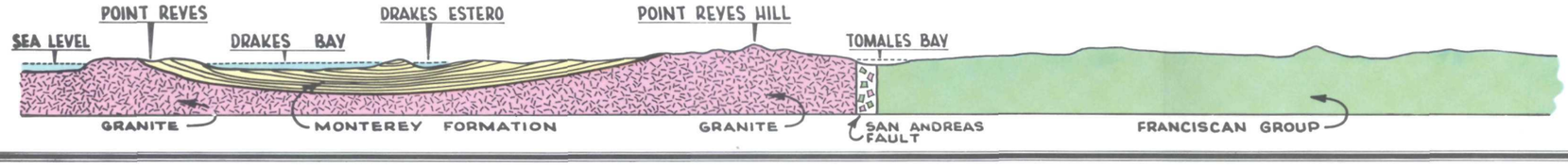
UNITED STATES DEPARTMENT OF THE INTERIOR • NATIONAL PARK SERVICE



LEGEND

CENOZOIC	RECENT	Qal ALLUVIUM, SAND DUNES, SAND SPITS	QUATERNARY
		Qt TERRACE	
	PLIOCENE	Tm MERCED FORMATION	TERTIARY
	MIOCENE	Tms MONTEREY FORMATION	
		Tmv VAQUEROS SAND	
	CRETACEOUS EOCENE	Tcgl EOCENE CONGLOMERATE	
		Kgr GRANITE	CRETACEOUS
MESOZOIC	JURASSIC	Jf FRANCISCAN GROUP	JURASSIC
		Jfl FRANCISCAN LIMESTONE	
PALEOZOIC		ls LIMESTONE	PALEOZOIC

DIAGRAMMATIC SECTION ALONG LINE A-A'



NORTH

0 1 2 3 4 5

SCALE IN MILES

PROPOSED POINT REYES NATIONAL SEASHORE

GEOLOGIC TYPES

UNITED STATES DEPARTMENT OF THE INTERIOR • NATIONAL PARK SERVICE

12/60

TOMALES POINT

TOMALES BAY

TOMALES BAY STATE PARK

EL. 1336

POINT REYES STATION

ABBOTTS LAGOON

MOUNT VISION EL. 1282

PT. REYES HILL EL. 1336

OLEMA

OLEMA

BOLINAS

MT. WITTENBURG EL. 1407

INVERNESS RIDGE

DRAKES ESTERO

BEAR VALLEY

BOLINAS VALLEY

BOLINAS LAGOON

BOLINAS

DUXBURY REEF

POINT REYES

LEGEND

- WOODED UPLAND
- BRUSHY SLOPES
- GRASSY LOWLANDS
- DUNES AND BEACHES
- CLIFFS
- MARSH

NORTH

0 1 2 3 4 5

SCALE IN MILES

PROPOSED POINT REYES NATIONAL SEASHORE

LANDSCAPE AND COVER TYPES

UNITED STATES DEPARTMENT OF THE INTERIOR • NATIONAL PARK SERVICE

12/60

1836

RANCHES ON POINT REYES PENINSULA WERE ACQUIRED BY LAND GRANTS FROM THE MEXICAN GOVERNMENT.

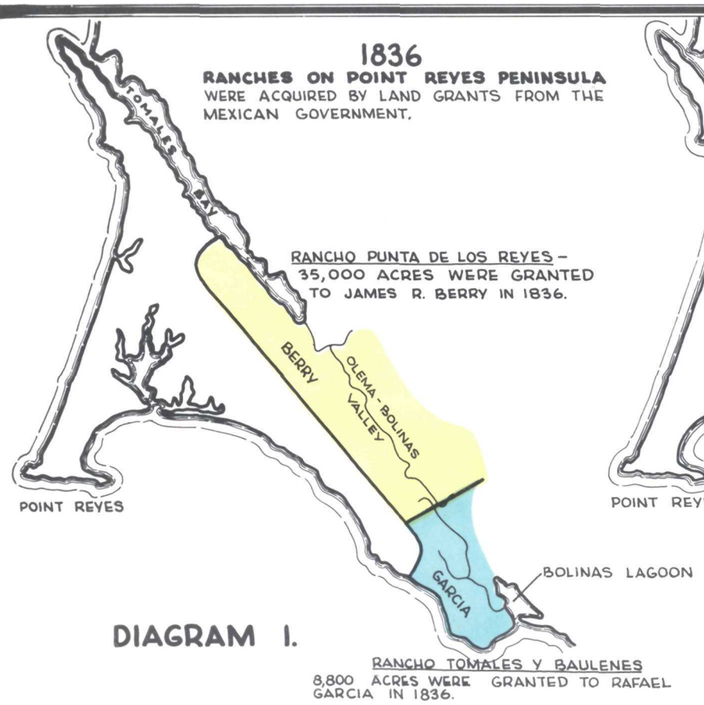


DIAGRAM 1.

1839

SNOOK "DENOUNCED" 8,800 ACRES OF BERRY'S RANCHO PUNTA DE LOS REYES.

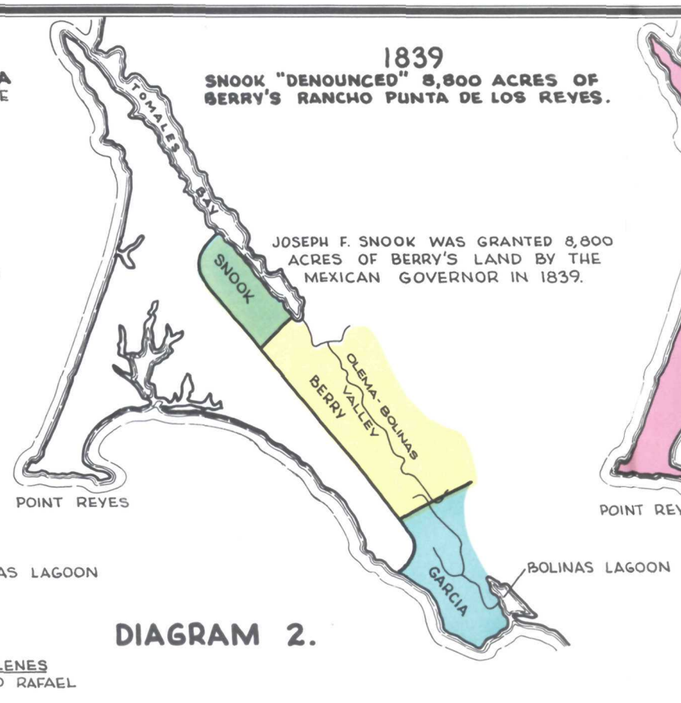


DIAGRAM 2.

1843

REMAINDER OF POINT REYES PENINSULA WAS GRANTED TO OSIO

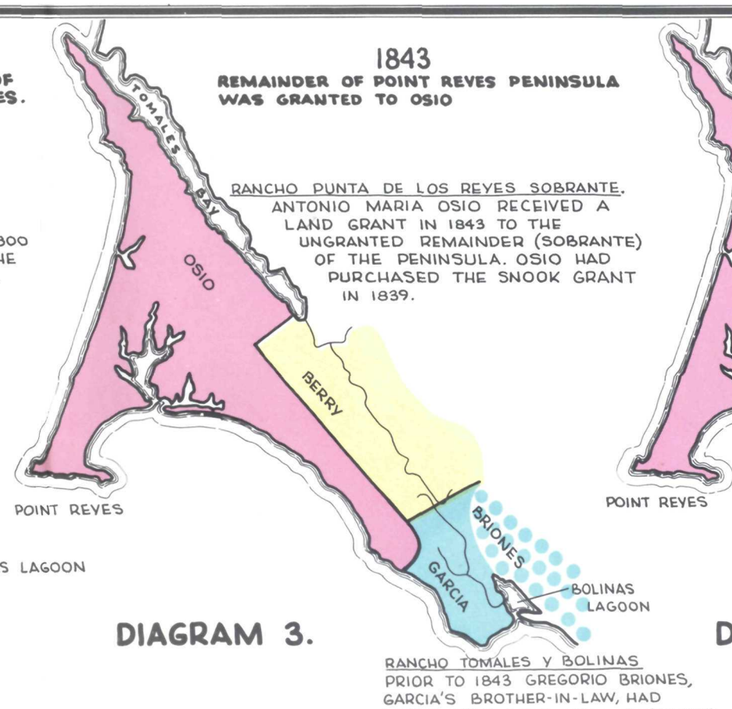


DIAGRAM 3.

1844

BY 1844 RANCHEROS DID NOT OCCUPY LANDS GRANTED THEM.

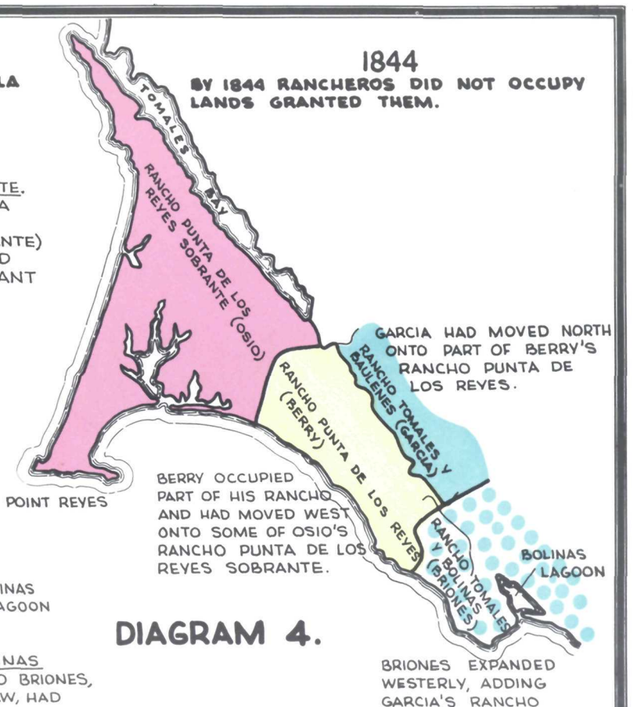


DIAGRAM 4.

1857

MEXICAN LAND GRANTEES LOSE RANCHOS

MEXICAN RANCHEROS WERE REQUIRED BY THE U.S. CONGRESS TO ESTABLISH VALIDITY OF THEIR LAND GRANTS BEFORE THE U.S. LAND COMMISSION OR IN FEDERAL COURTS. NONE HAD SUFFICIENT FUNDS TO COVER HEAVY LEGAL EXPENSES AND RANCHOS WERE SOLD BY THE MARIN COUNTY SHERIFF IN 1857.

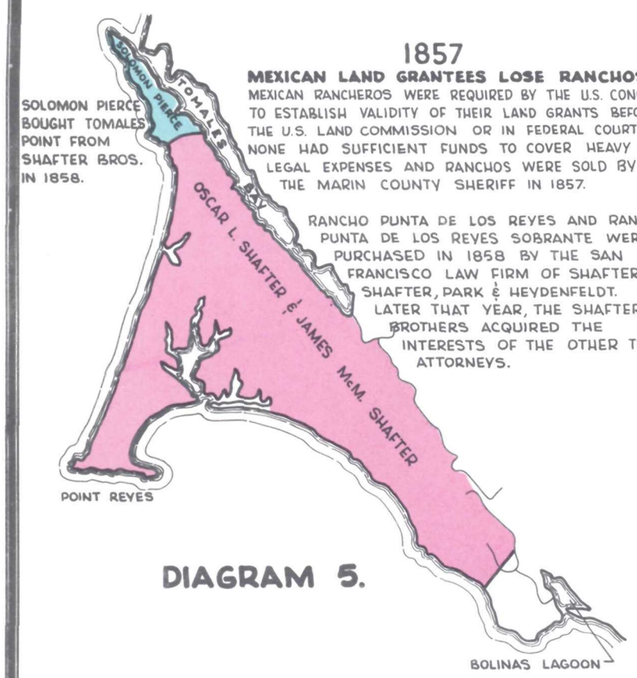


DIAGRAM 5.

1869

SHAFTER BROTHERS DIVIDE THEIR LANDS

FOR PURPOSES OF MANAGEMENT, LANDS JOINTLY OWNED BY OSCAR L. SHAFTER AND JAMES McM. SHAFTER WERE DIVIDED INTO SIX PARCELS. THE SHAFTER BROTHERS EACH RETAINED TWO PARCELS AND GAVE TWO PARCELS TO CHARLES W. HOWARD, THE SON-IN-LAW OF OSCAR L. SHAFTER.

THE SIX PARCELS WERE THEN SUBDIVIDED INTO ABOUT TWO DOZEN DAIRY RANCHES, DESIGNATED BY THE LETTERS "A" TO "Z." TENANTS OPERATED THE RANCHES PRODUCING DAIRY PRODUCTS. THE SHAFTER FAMILY OWNED THE LAND AND THE CATTLE.

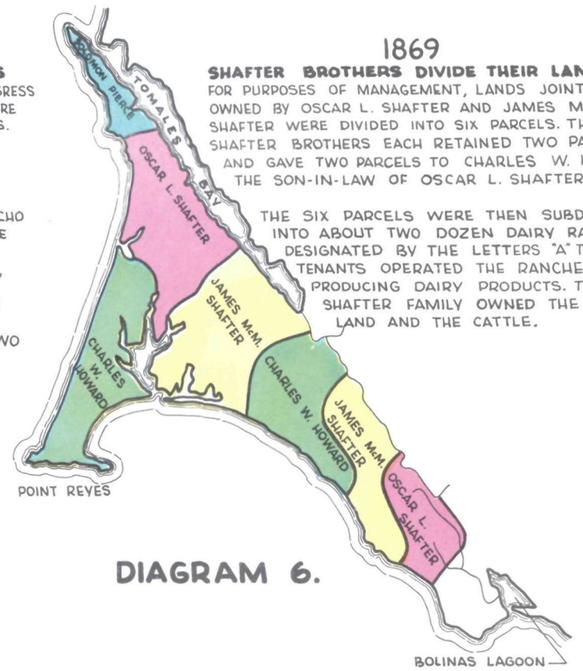


DIAGRAM 6.

1919 - 1939

DISSOLUTION OF SHAFTER FAMILY HOLDINGS

FOR SIXTY YEARS THE SHAFTER FAMILY HAD RETAINED OWNERSHIP OF ALL THEIR LANDS ON POINT REYES PENINSULA EXCEPT THE PIERCE RANCH, AND A SMALL SUBDIVISION OF ABOUT 640 ACRES OF INVERNESS WHERE SOME LOTS WERE SOLD AS EARLY AS 1889.

DISSOLUTION BEGAN IN 1919 WHEN CHARLES W. HOWARD SOLD HIS ALLOTMENTS TO JOHN RAPP WHO PERMITTED HOWARD'S TENANTS TO BUY THE LAND THEY FARMED.

NEARLY ALL THE SHAFTER FAMILY HOLDINGS ON THE REMAINDER OF THE PENINSULA WERE SOLD BY 1939.

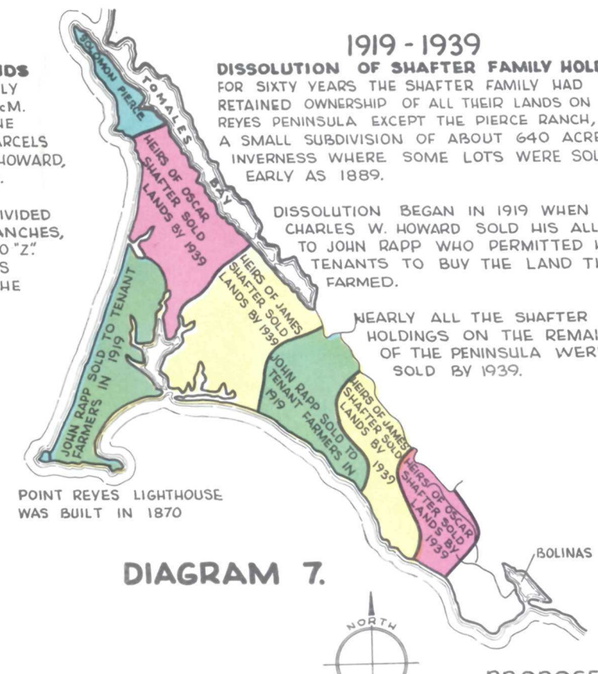


DIAGRAM 7.

1960

EXCLUSIVE OF VILLAGES, NOW 62 OWNERS

EXCLUSIVE OF THE VILLAGES THERE WERE 62 OWNERS OF LAND WITHIN THE PROPOSED POINT REYES NATIONAL SEASHORE IN 1960.

NINETY-NINE PERCENT OF ALL LANDS ON THE PENINSULA SUGGESTED FOR SEASHORE STATUS IS OWNED BY 25 PERSONS OR CORPORATIONS. SIX OF THESE PROPERTIES CONSTITUTE 48 PERCENT OF ALL THE LANDS IN THE PROPOSED SEASHORE.

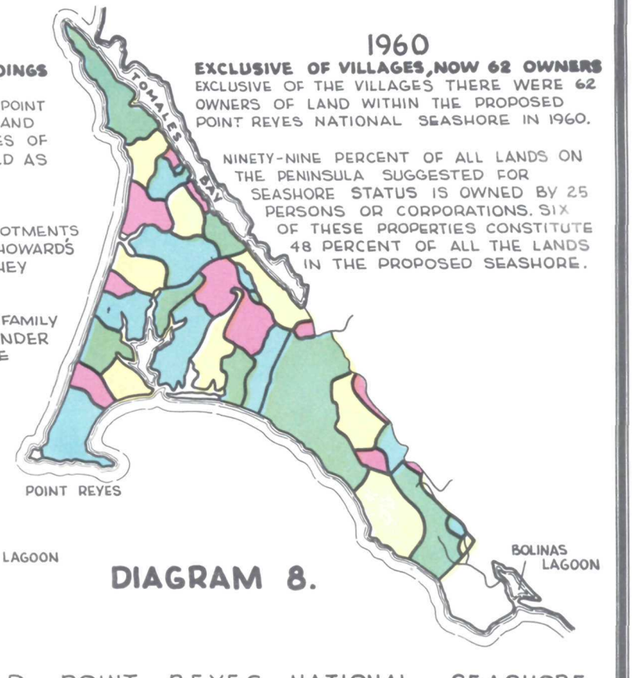


DIAGRAM 8.

PROPOSED POINT REYES NATIONAL SEASHORE

HISTORY OF LAND OWNERSHIP

UNITED STATES DEPARTMENT OF THE INTERIOR - NATIONAL PARK SERVICE

12/60

TOMALES POINT

PIERCE RANCH

2, 5, 7, 10, 19, 21, 25, 27, 31, 37, 41, 48, 51, 61, 62

PRIVATE PROPERTY

TOMALES BAY STATE PARK

POSSIBLE CORRIDOR FOR SUGGESTED ENTRANCE ROAD

INVERNESS EXPANSION AREA

HOME RANCH

LAGUNA RANCH

BEAR VALLEY RANCH

LAKE RANCH

DRAKES ESTERO

DRAKES BEACH COUNTY PARK AND HISTORICAL MONUMENT

POINT REYES

BOLINAS EXPANSION AREA

BOLINAS LAGOON

DUXBURY REEF

LEGEND

RANCHING AREA

PUBLIC USE AREA

NORTH

0 1 2 3 4 5

SCALE IN MILES

PROPOSED POINT REYES NATIONAL SEASHORE

PRESENT LAND OWNERSHIP

UNITED STATES DEPARTMENT OF THE INTERIOR - NATIONAL PARK SERVICE

1260

TOMALES POINT

EL. 336

EL. 406

EL. 477

EL. 489

TOMALES BAY

TOMALES BAY STATE PARK

INVERNESS EXPANSION AREA

POINT REYES STATION

EL. 472

EL. 354

MOUNT VISION EL. 1282

PT. REYES HILL EL. 1336

OLEMA

ABBOTTS LAGOON

RADIO RECEIVING INSTALLATIONS

RANCHING AREA

OYSTER CANNERY

EL. 355

EL. 360

MT. WITTENBURG EL. 1407

EL. 320

PUBLIC USE AREA

EL. 1120

EL. 1524

EL. 1034

BEAR VALLEY

EL. 476

MUD LAKE

WILDCAT LAKE

EL. 1219

OCEAN LAKE

CRYSTAL LAKE

BASS LAKE

PELICAN LAKE

EL. 940

BOLINAS EXPANSION AREA

BOLINAS LAGOON

BOLINAS

DUXBURY REEF

BOUNDARY 1/4 MILE OFF-SHORE

DRAKES ESTERO

EL. 266

MARIN COUNTY DRAKES BEACH PARK

U.S. COAST GUARD LIFEBOAT STATION AND COMMERCIAL FISHING DOCKS

EL. 432

POINT REYES LIGHTHOUSE RESERVATION

LEGEND

- RANCHING AREA
- PUBLIC USE AREA
- EXISTING FEDERAL, STATE OR COUNTY PARKS
- VILLAGE & EXPANSION AREAS

NORTH

0 1 2 3 4 5

SCALE IN MILES

PROPOSED POINT REYES NATIONAL SEASHORE

BOUNDARIES - SUGGESTED USE ZONES

UNITED STATES DEPARTMENT OF THE INTERIOR - NATIONAL PARK SERVICE

1960

MARIN COUNTY

NOVATO

SAN RAFAEL

NORTH

0 1 2 3 4

SCALE IN MILES

TOMALES BAY

BOATING BEACHES

OVERLOOK

PICNIC AREA
PARKING AREA

TOMALES BEACH
- BATHING
- PICNICKING
- FOOD SERVICE
- BATHHOUSES
- PARKING AREA

BEACHES IN TOMALES BAY STATE PARK

INVERNESS

POINT REYES STATION

INVERNESS PARK

HEADQUARTERS
- ADMINISTRATION
- EMPLOYEE HOUSING
- MAINTENANCE CENTER

SAMUEL P. TAYLOR STATE PARK

OLEMA

STABLES

ABBOTTS LAGOON
DUNE PICNICKING
BOATING-NO MOTORS
FISHING

RANCHING AREA

OYSTER CANNERY

MT. WITTENBURG OVERLOOK

BEAR VALLEY PICNIC AREAS

SURF FISHING, HIKING, PICNICKING ALONG BEACH

CAMPGROUND

DRAKES ESTERO

BEACH ACCESS

PICNICKING

BEACH ACCESS

CAMPGROUNDS

MT. TAMALPAIS STATE PARK

MUIR WOODS NAT'L. MON.

DRAKES BEACH
PICNIC AREAS, BATHING

DRAKES BAY

CAMPGROUND

OVERLOOK

BOLINAS LAGOON

STINSON BEACH

BEACH ACCESS

BOLINAS

DEEP-SEA CHARTER BOATS
RESTAURANT
BOAT LANDING, DOCKS
LIFEBOAT STATION

DOUBLE POINT
WILDLIFE EXHIBIT
PICNIC AREAS
LAKE FISHING

BOLINAS BAY

LIGHTHOUSE

OVERLOOK

OVERLOOK

DUXBURY REEF

PACIFIC OCEAN

PROPOSED POINT REYES NATIONAL SEASHORE

POSSIBLE DEVELOPMENT LAYOUT

UNITED STATES DEPARTMENT OF THE INTERIOR ▽ NATIONAL PARK SERVICE 12/60