



HISTORY
OF
LOS PADRES
NATIONAL
FOREST

1898 - 1945

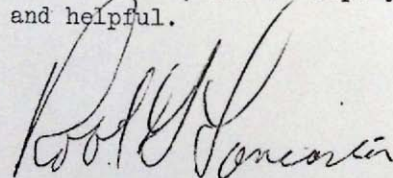
February 1972

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We are confident, however, that Billy Brown's work is accurate and reliable, and we hope you will find it both interesting and helpful.



ROBERT G. LANCASTER
Forest Supervisor

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HISTORY
OF
LOS PADRES NATIONAL FOREST
S. B. SHOW, REGIONAL FORESTER

COMPILED
BY
WM. S. BROWN, SENIOR INFORMATION SPECIALIST

SAN FRANCISCO, CALIFORNIA JUNE 1, 1945

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ABOUT THE AUTHOR

William S. (Billy) Brown started his Forest Service career in 1911 as a Forest Clerk for the Modoc National Forest. He retired from the Forest Service in 1945 after 35 years of distinguished service, during which he held the various positions of Deputy Forest Supervisor, Forest Supervisor (1920-1924 on the Modoc National Forest in northern California), Senior Clerk, Principal Clerk, Executive Assistant, and Senior Administrative Assistant. In addition to the Modoc, he was assigned to the San Bernardino National Forest, the Los Padres, and the Regional headquarters in San Francisco.

At the time of his retirement he was living in Santa Barbara, although assigned to the Regional Office as a Senior Administrative Specialist in the Division of Information and Education, and had just finished writing this History of the Los Padres.

History and writing were his special interests, and in a letter commemorating Billy's retirement Forest Service Chief Watts said, "During many years on the Modoc National Forest, in addition to your regular duties you were able to search out and record historical facts that form an important part of California's early-day history." Another letter records, "The many historical spots in California marked for posterity, mainly through your efforts, are monuments to your enthusiasm and far sighted planning."

Born in England and educated in Canada, with one year of a commercial course at Indiana University, Billy Brown received little formal education in writing but learned where and how he could through some correspondence courses and many published articles on conservation. He was editor of the leading Modoc County newspaper for a year when he was out of the Forest Service; and he was always very active in community organizations. He lived with his family in Santa Barbara from 1939 until his death in 1965.

February 1, 1972

REGIONAL FORESTER

OCTOBER 29, 1945

WM. S. BROWN, Sr. Information Specialist

I - INFORMATION, Los Padres History

There is being forwarded by registered mail under separate cover original and four carbons of the Los Padres National Forest history. I have left the first carbon with Supervisor Nash-Boulden for review with the suggestion that he make any criticisms or suggestions before sending it on to you.

The fine job of typing on this manuscript was done by Mrs. Harriet Swearngin of the Los Padres at odd moments during the past several weeks.

WM. S. BROWN
Sr. Information Specialist

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- CHAPTER I -

GENERAL DESCRIPTION

Location and Elevation

Embracing some of the most rugged country in the entire western United States, Los Padres National Forest extends along the Pacific Coast from the city of Ventura on the south to Monterey Bay on the north, and touches the Pacific Ocean on the west and extends as far east at one point as the foothills of the southern San Joaquin Valley. There are two distinct sections, the Monterey Division on the north, lying entirely within Monterey County and the main section, or Southern Division, located principally in Ventura, Santa Barbara and San Luis Obispo Counties, with relatively small adjoining areas in Kern and Los Angeles Counties. More tersely put, the location of Los Padres National Forest is that national forest unit lying along the Pacific Ocean in the south central section of California.

In the Main Division, the Los Padres Forest includes the San Rafael mountain range extending northwest and southeast from the San Luis Obispo County line through Santa Barbara County, swinging to the east to merge into the Tehachapi Mountains, and a broken continuation of the San Gabriel Range. The highest peaks within this division are San Rafael Mt., 6,581 feet, Strawberry Peak, 6,546 feet, and Big Pine Mt., 6,828 feet.

The Sierra Madre Range roughly parallels the San Rafaels, its serrated peaks in the eastern portion rising still higher. Reyes Peak has an elevation of 7,088 feet, Frazier Mt., 8,026 feet, and Mt. Pinos rises to 8,826 feet, the highest point in Los Padres National

Forest. Strangely enough, perhaps, for a mountain area conspicuously roadless, the summits of Big Pine Mt., Frazier Mt., and Mt. Pinos are all accessible by auto during the mid-summer months.

Along the sea coast in Santa Barbara County for some 60 miles extend the Santa Ynez Mountains, reaching their highest point in Santa Ynez Peak, the summit of which is 4,292 feet. The Santa Lucia Range continues in a northwesterly direction through San Luis Obispo County, with gentler elevations, Hi Mountain, 3,180 feet, being the highest point.

A hodge-podge of broken serrated ridges and peaks cut into the main mountain ranges at all angles in this division of Los Padres, some of the more distinct being the Topa Topa Range in the extreme south, the Big Pine Mountain ridge in the center and the Sierra Madre Range paralleling the San Rafael Range. One of the earliest Forest Service topographers, in an endeavor to convey a written description of this mountain country, said: "The relief of the Reserve (Los Padres National Forest) is very high, rugged and precipitous, and the study of such a broken surface, even with the aid of a contour map, will not be easy for the layman."

The Monterey Division of Los Padres National Forest includes one distinct mountain range, a northern extension of the Santa Lucia Mountains, commonly termed the Coast Range. This area of more than 360,000 acres is still more rugged than that of the main division, the mountain slopes rising sheer from the ocean. Lillian Bos Ross, in the preface to her book "The Stranger" indicates the rugged nature of this area when she says: "The Santa Lucia Mountains, harsh and lovely, hold fast to their ancient loneliness by a sheer drop of five thousand

feet to a shoreless sea....where any piece of flat land big as a blanket has a name to itself."

In this division, Cone Peak, some four miles from the ocean's edge, is 5,180 feet high. Anderson Mt. and Marble Peak, still closer to the rocky shoreline of the Pacific, rise to heights of 4,043 feet and 3,966 feet, respectively. The west, or ocean side, of this area is cut up into almost innumerable canyons, often mere narrow gashes in the rugged granite slopes. The topography of the east side of the range is somewhat gentler, the higher elevations easing down into densely-covered chaparral hills and the floor of Salinas Valley.

Relation to Surrounding Areas

The existence of major travel routes more or less indicates the intensity of use of any land area. The interior regions of Los Padres National Forest are for the most part roadless and traversable by only horseback or foot travel. However, U. S. Highway 99, California's main north and south highway artery cuts through its extreme eastern edge across the Tehachapi Range over Tejon Pass, and because of its former winding curves is still known as the "Grapevine". U. S. Highway 101, California's second main longitudinal road route, parallels the national forest from Salinas southward, passing through it over Cuesta grade in the San Luis Obispo County. Incidentally, the Grapevine and Cuesta are rated as two of the finest examples of mountain highway construction in the world.

U. S. Highway 1, extending along the sea coast from San Francisco Bay to a junction with Highway 101 at San Luis Obispo, is squeezed between the rugged hills of Los Padres' Monterey division and the shore

line, in places dropping almost to the level of the surf, in others poised several hundred feet above the pounding waves. This route is considered one of the most scenic in the state.

Several other major highways cross or parallel Los Padres Forest. U. S. Highway 126 from Ventura to Castaic Junction, connecting 101 with 99, traverses the citrus orchards of Santa Clara Valley, just below the towering Topa Topa Mountains. U. S. 399 tunnels through or crosses over the same general mountain range to provide a heavily used route between Ventura and Maricopa, rising in wide loops from Matilija Canyon over the crest of Pine Mt. and dropping down through the rugged gorges of the Sespe River to meet the flat lands of Cuyama Valley. U. S. Highway 150 takes off from Ventura, crosses Cuesta Pass, and winding along the back doors of Carpinteria and Santa Barbara, extends through the Santa Ynez Range over scenic San Marcos Pass to a junction with 101 at Buellton in the Santa Ynez Valley.

Minor routes, but yet heavily traveled paved or oiled roads include Highway No. 166 chiseled through the mountains of central Los Padres and connecting Santa Maria Valley with the southern San Joaquin Valley, and Highway 178 which provides a route from San Luis Obispo and Santa Margarita to the Elk Hills Oil Field. Still further north, but between the two divisions of Los Padres Forest, Highways 41 and 198 provide connecting links between the Salinas and San Joaquin Valleys. Two high standard roads, built in recent years cooperatively by Monterey County and the Federal government, cross the Monterey Division from valley to coast, entering and following the canyons of Arroyo Seco and Nacimiento Rivers, respectively. The latter route, dropping from the summit to the ocean shore, winds for miles in tortuous bends to

reach the ocean's edge.

Los Padres Forest furnishes the sole water supply, not only for the irrigation of adjacent intensively-cultivated valley lands growing a wide variety of crops, but for a chain of populous urban centers as well. Few agricultural areas in the West are more dependent on their local mountain watersheds. The Santa Clara Valley and Ojai Valley both lie just below the Topa Topa Range and produce heavy crops of oranges, lemons, walnuts, and beans. The incorporated urban centers of this section, Fillmore, Oxnard, Ojai, Santa Paula, and Ventura, had a combined pre-war population of 35,643.

Carpenteria and Goleta Valleys, lying between the Santa Ynez Range and the Pacific Ocean in an approximate fifty-mile strip, are the leading lemon producing centers of the nation. Walnuts, avocados and other crops requiring a mild, equitable climate, are produced abundantly, and some parts of the area are entirely frost-free year in and year out. The leading city, Santa Barbara, had a pre-war population of 35,000 and the city limits actually extend over into the national forest.

Santa Ynez Valley, with several small urban centers, depends upon the Santa Ynez River for its irrigation water. The neighboring Lompoc Valley, leading vegetable and seed production center of the United States and the world, is dependent upon water also from the Santa Ynez and tributary streams rising in the forested watershed. The Santa Maria River, fed by the Cuyama and Sisquoc streams, forms the source of water for the large vegetable producing areas of the Santa Maria Valley, as does the city of Santa Maria, with a 10,000 peacetime population.

The big interior Cuyama Valley, until quite recently devoted almost exclusively to livestock production but now also an important vegetable producing center, is bordered by the water-conserving brush slopes for its entire length. Much of the valley land in San Luis Obispo County snuggles up against the adjacent chaparral slopes and the city of San Luis Obispo itself is a scant four miles from the boundary of Los Padres Forest. The fertile area along the sea coast in the same county is watered by streams flowing from the nearby chaparral-covered hills.

The Salinas River has its source in central San Luis Obispo County, flowing north past the city of Paso Robles and smaller neighboring towns on into Monterey County. It extends the entire length of that county with streams from nearby Los Padres forested hills flowing into it from the west. The Salinas River, a large stream as California rivers go, is the central feature of Salinas Valley. This valley is one of the most fertile areas of large size in California and is known locally as "The Nation's Salad Bowl". Although diversified agricultural activities are carried on in this valley and in arms thereof extending into the hills of the national forest, the main crops are lettuce, sugar beets and beans. The city of Salinas, population 12,000, is the main business center of Salinas Valley. King City and Soledad are both large incorporated towns. Smaller urban centers are scattered up and down the valley's length. The historic city of Monterey, and the aesthetic centers of Carmel and Pacific Grove, all lie just north of Los Padres National Forest which is used extensively by their populations for recreation purposes.

Besides scores of smaller urban centers ranging in individual population from 100 to 1,000, there are seventeen incorporated towns

and cities located closely adjacent to the boundaries of Los Padres National Forest, with an aggregate 1940 population of 128,903 people. During the days of World War II this population has become greatly swollen since in addition to war plants of various kinds, many large Army and Navy posts have been established all along the coastal area from Monterey to Ventura. (See Appendix A.)

Distinctive Features

Los Padres National Forest has a total area of 2,016,088 acres, 239,026 acres of which are privately owned, the balance being Government land. In point of area it is the largest national forest in the State of California and the tenth largest of the 160 national forest units of the entire United States.

It is the only national forest with a sea frontage on the Pacific Ocean. At Salmon Creek, Limekiln Creek and Pfeiffer Beach in the Monterey Division the national forest extends right down to the water's edge, and at the last named point there is a wide stretch of public beach unique even for the rather bizarre Monterey Coast. Here, wild, white-capped waves pour through arched rocks and caves in giant rollers. Here too, the coast deer of the mountains can be seen disporting themselves on the surf-hardened beach sand.

Los Padres National Forest and its adjacent area is a strange mixture of aesthetic values and practical use; of the atmosphere of the old Spanish and Mexican rancho days and modern livestock activities; of ultra-modern highways and breath-taking, breakneck trails; of wild hinterland areas and some of the most highly cultivated lands in the world; of millionaires' castles and hill-billys' cabins; of a juxtaposition of vast expanse of ocean and towering peaks. Lookouts

in their glass-ribbed houses scanning the hills for the telltale smoke of forest fires, looking eastward toward snow-capped peaks, from the seaward side can also look out over the broad Pacific from six of the forest's main lookout stations.

Even the nomenclature of the region is different from that encountered on the average national forest, Spanish terms predominating. In some areas the national forest boundaries were laid out on acute angles rather than by cardinal compass directions to conform to the old established boundaries of old Spanish and Mexican ranchos such as San Miguelito, El Pojo, Las Milpitas, Corral de Piedro, Carlos de Jonata and Lomas de Purificacion. Such names as Los Burros, Nacimiento and San Antonio, applied to topographic features of the region, are quite easy to pronounce, but the casual visitor is apt to stumble over San Carpofofo Creek, Refugio Pass, San Emigdio, Nojoqui Falls, or Tecuya Ridge. As much as possible through the years, local administrators have tried to retain the old names and the Spanish-Mexican atmosphere they represent.

Place Names

As in most mountain regions of California there is considerable historic interest attached to place names on Los Padres Forest, tinged as they are with Spanish, Indian, and pioneer American color. The definition or derivation of some few of them may add interest to this history.

Piedra Blanca is simply White Rock; several places in the region bear this appropriate name. Paso Robles means Pass of the Oaks. Carmelite friars with Vizcaino's exploration expedition thought the

surrounding country looked like Carmel in Palestine and imposed that name on the bay and adjoining shorelands. Oso Canyon or Canada de Los Osos in the San Luis Obispo section means the Canyon, or Valley, of the Bears. Portola's party first gave it the name after a fight with a giant grizzly in that vicinity.

Manzana Creek is Apple Creek, after an apple orchard on its banks, long since dead and gone. Soledad was the Spanish term designating a lonely place. Sal Si Puedes, converted by faster-spelling Americans into Salsipuedes, in the Spanish tongue literally means "Get out if you can", and refers to a maze of criss-crossed canyons or ravines. Los Burros section of the Monterey Division owes its name to the fact that surefooted burros were the only feasible means of transportation when the Spaniards started silver mining operations there. Topa was the local Indian name for gopher, and to emphasize the numbers of this burrowing animal existing there, the word was repeated to furnish the appellation for Topa Topa Mountain.

Uncle Sam Mountain on the Monterey district has no national significance but was named for an old Mexican pioneer living nearby and bearing the nickname of Uncle Sam. Davy Brown, pioneer of the Santa Maria section, was an adventurer who served under General Jackson at the battle of New Orleans and later fought Indians all the way across the American continent. He became quite wealthy in California, died intestate, and had no living relatives. Since his fortune went to enrich the public purse, it is quite fitting that his favorite back country haunt should bear the name of Davy Brown Creek. One of the hideouts of the famous California Mexican bandit of the 1850's, Joaquin Murietta, was located in the central southern section of Los Padres. A giant grapevine, reputedly planted by this cold-blooded murderer

and robber, which still flourishes, gives the name Grapevine to that section.

When Portola's party in 1769 found a group of Indians engaged in constructing a large canoe in southern Santa Barbara County, it was quite logical that Father Palou, Franciscan friar and historian for the party, would name the existent Indian village Carpenteria (carpenter). The present day town and surrounding valley still bear the name. Salinas, the Spanish term for salt marsh, was quite appropriately applied to the valley in which a considerable area of marshland existed, the name being extended to include the river and present city. The river itself was sometimes called Saytayollo by the early Spanish-Mexican settlers. Hogs imported by the Franciscan friars waxed fat on the plentiful acorns of the upper Santa Maria Valley and multiplied rapidly in a wild state. A neighboring mountain and other topographic features of that locality carry the name Los Cochis (The Pigs).

Nojoqui Falls is a respectable little Niagara on a creek in central Santa Barbara County. Legend has it that a young Indian brave honeymooning with his bride at this beautiful sylvan retreat was carried over the falls to his death. At least the Indian term for "honeymoon" has been applied to the waterfall and creek, although some authorities claim that the word also meant Nighthawk in the Indian tongue. Camuesa is undoubtedly a corruption of the Spanish word Gamuza, literally meaning Buckskin. The Indians were wont to camp near the foot of the peak of that name and tan the hides of the many deer bagged by them in that section.

The word Ojai, now designating a fertile valley and its leading town, meant Nest in the Indian vernacular. The term is quite appropriate for this landlocked valley. The town was originally named

Nordhoff, but the "hoff" was somewhat repugnant to American ears during the days of World War No. I. "Hurricane Deck", words which stand out prominently on the map of Los Padres Forest, is also a very appropriate name for the rough country to which it is applied, swept as it frequently is by gale-like storms.

Ventana, Spanish for window, is quite a natural name for a peak in the Coast Range, since viewed from a distance one looks through a gap in the ridge as through a window. It was quite natural also that Tassajera (Meat Drying Place) should be applied to the hot springs in the extreme north end of the Forest, since Indians gathered there from time immemorial to cure jerky while at the same time curing their bodily ills by bathing in the waters of the springs. The spelling of the name has been changed to "Tassajara" in recent years.

There is a charming legend connected with the name Chuchupate, a section of the Mt. Pinos area. According to the story, Chuchupate was a beautiful Indian maiden who ministered to her tribe during a winter of famine and illness. As a result of her arduous labors she herself sickened and died. Her inconsolable people, weakened by starvation and disease, were amazed one sunny spring morning to see the ground carpeted with myriads of bright yellow flowers. They believed them a reincarnation of the spirit of their beloved Chuchupate and gave the new plant the name which it still bears. The plant was credited with almost magical curative qualities and was used later by the white settlers for medicinal purposes. The Indians also believed it to be a potent love charm. (See Appendix B.)

- CHAPTER II -

EARLY HISTORY

Indian Use

For many centuries before the coming of the white man a numerous Indian population lived, moved and had its being in and adjacent to Los Padres National Forest. On the eastern edge of the Forest, tribes from the Mojave Desert gathered the pinon nuts of Frazier Mt. and Mt. Pinos as one of their chief articles of diet. Along the coastal areas fish from the almost limitless supply of the Pacific waters formed the chief protein item in the aboriginal diet, while acorns from the oak groves of the valleys and rolling hills provided in the main the Indians' daily bread. Excavations by archaeologists all along the sea coast and well into the interior mountains have yielded a veritable treasure trove of Indian utensils and weapons, ranging from fishhooks, baskets and cooking utensils to cunningly fashioned stone ceremonial articles and weapons.

Pedro Fages, Manuel Venegas and various priests of the Franciscan Order who were among the first Spanish explorers of California have left rather voluminous records of the life and habits of the coast tribes. All of them mention the populous Indian towns in the mid-eighteenth century between the mountains and the sea from Ventura ^{to} ~~and~~ Monterey. The Santa Barbara Museum of Natural History has assembled a wide range of relics which depict in detail the Indian mode of living.

The Indians of Santa Barbara and adjacent areas built sea-going canoes of a size and seaworthiness which amazed the Spanish explorers.

They constructed quite elaborate grass huts which were even equipped with separate rooms and crude furniture. In basket making these Indians of the southern coast and mountain area never approached the artistry of the more northern tribes who even made closely woven baskets which would hold water. The handy pitch or asphalt oozing from the earth made close weaving unnecessary for the local Indians and resulted in less attention being paid to the basket maker's art. The southern tribes did, however, produce decidedly artistic personal ornaments and fishing gear.

David Bank Rogers, archaeologist and historian, who spent many years investigating the California Coast tribes, has proven that there were three distinct periods of Indian culture in the central Los Padres region. The earliest Indians are known to history as the Oak Grove People, ape-like creatures who roamed the woods and mountains and seemed to have little connection with the sea. Their arrowheads, found in many parts of Los Padres Forest, were distinctly crude. These people, with caves as their only shelter, lived some 10,000 to 12,000 years ago.

The Hunting People, whose antiquity goes back 6,000 years, were distinctly superior to the Oak Grove People and were the forerunners of the still more advanced tribes of the Canalinos found by the Spaniards, and whose occupancy of the land apparently dates back some three or four thousand years. The exhibits of these three periods of the existence of the southern coast aboriginals show clearly their cultural progress in the manufacture of weapons and utensils from exclusive stone, to stone and bone, then to seashell, wood and steatite,

the last-named material imported from further south in the state, evidently by water transportation.

The Indians of the different periods had one thing in common--they lived off the land ^y on the resources of the adjacent waters. Almost everywhere within Los Padres National Forest can be found evidences of past Indian occupancy and use, in mortars cut into the rock for pounding to pulp the universally-used acorns and other seeds and fruits, and in the ancient markings on rocks and caves. The Manzana and Davy Brown sections are replete with Indian writings adorning the walls of caves or natural rock shelters. Even on the rocks and cliffs of the wild, remote Hurricane Deck country Indian hieroglyphics are found.

In most places these Indian writings are very crude. There are two notable exceptions to this. One is Painted Cave, lying just above the city of Santa Barbara. Here Indian artists have covered the walls of a cave with an intricate series of vividly-colored signs and symbols, equal to the best efforts of the Sioux tribes further east. In the southeast corner of Carizzo Plain is a peculiar dome-shaped formation known as Painted Rock. Rising 140 feet above the surrounding level land, the rock formation is split to form a huge rectangular hall or room, open to the sky. Here a long-forgotten race of men evidently gathered for religious rites of some sort. The walls of this natural temple are covered with painting worked in intricate designs which stand out today as clearly as when they were inserted on the rock by the ancient artists. The drawings have a distinct resemblance to those of the Aztecs of Central America, but the Indians found here by the first Spanish explorers knew nothing of their origin.

All up and down the coast there were regular migrations of the various Indian tribes from the seashore to the mountains. The floors of caves and the ground in sheltered areas high up in the Santa Ynez Mountains are littered with seashells. It is a known fact that Indian families and subtribes had individual reserved areas in the hills from which they gathered acorns and berries, even though the existence of the Indians as a whole was largely on a communal basis. Trespass of one tribe or group on the oak groves, berry patches or hunting grounds of another group precipitated the wars waged by one tribe or subtribe on another.

These tribal wars were constantly recurring affairs. The first white men found the Indian rancherias closely guarded against possible hostile attack. The areas around the Indian villages were periodically burned of vegetative cover to guard against the unseen approach of enemies and this custom has probably given rise to the belief held by many that Indians habitually burned off the wild land cover of the surrounding hills. The closest investigations, however, tend to disprove that Indians deliberately burned off large areas of the native vegetative growth before the coming of the white man.

Outside of very minor uprisings, promptly squelched by such local authorities as were in power at the time, Indians of Los Padres territory offered no organized resistance to white aggression, as did California tribes in other sections of the state.

Spanish Exploration and Conquest

The first white men to set eyes on Los Padres Mountains were the Spaniards under Juan Rodrigues Cabrillo, a Portugese navigator em-

ployed by the King of Spain. Cabrillo landed briefly on the Santa Barbara coast in the fall of 1542, planted the Spanish flag as a token of conquest and sailed away. As a Spanish hireling his act was justified since immediately after the great discovery of Christopher Columbus Pope Alexander VII had issued to the King of Spain the greatest title deed the world has ever known, a title in fee simple to all lands discovered by Spain beyond the great Western sea.

The next Spanish explorer to land in this part of California was Pedro de Unamuno who put ashore at what is now Morro Bay while enroute to Mexico from a trans-Pacific voyage. He remained only long enough for his ship's crew to get into a fight with the Indians, and continued on to Mexican territory.

Seeking portable wealth in the form of gold and pearls for the Spanish monarchy, Sebastian Vizcaino led a flotilla of three ships up the California coast in 1602. Vizcaino planted the Spanish flag on the Monterey coast, thoroughly charted Monterey Bay and in fact, made a very creditable map of the entire coastal area.

Although carrying on exploration and colonization further to the south and east, the Spanish conquistadores left California in the hands of the Indians for more than a century and a half after Vizcaino's expedition. In 1769, Gaspar de Portola and Fernandez Rivera led an expedition to the new lands of California and on July 17 of that year Father Junipero Serra founded the first of the chain of famous California missions at San Diego.

The educated Franciscan priests accompanying Portola's men-at-arms have left clearcut records of this expedition, the route of which followed in general the area now embraced in Los Padres National Forest

and blazed the trail from San Diego to San Francisco Bay along sea coast and over mountain ranges, later trod by the sandal-shod feet of the Mission Padres. Portola's party, a mixture of the religious and secular, skirted the Santa Ynez Mountains, passed through Gaviota Pass, toiled over the Santa Lucia Range in what is now San Luis Obispo County and, leaving the southern end of Salinas Valley, plunged into the lower reaches of the rugged Coast Range of the Monterey Division. In the latter part of September the party camped near the headwaters of the Nacimiento River.

The Spaniards were somewhat daunted by the rugged way before them. Father Juan Crespi, chronicler of the expedition, wrote, "We set out in the morning and the first thing was to go over the crest, with a prayer in our mouths, for the day's journey called for nothing less." Portola, however, evidently considered this the most feasible route over the mountains to the sea coast since he later passed that way again and the famous soldier-explorer, Juan Bautista de Anza, mentions camping on the same stream in later explorations.

Mission Days

The Spanish explorers were invariably accompanied by representatives of the Church, a fact amply evidenced by the many religious names conferred on topographic features encountered on their journeys. The explorers were soldiers, however, seeking conquest or portable wealth, and it is to Father Junipero Serra and his associate Franciscans friars that California owes its first rural land development. These Spanish padres, filled with holy zeal for the conversion of the Indian heathens, were also intensely practical and brought with them

from the established settlements in Mexico seed and livestock to form the nucleus of California agriculture.

The chain of 21 Franciscan Missions, starting with San Diego on the south and ending with Sonoma on the north were established approximately thirty miles apart, one day's foot travel, since the ascetic faith of the padres generally forbade any other means of locomotion. In their heyday these missions controlled 1,500,000 acres of farmland, besides the use of contiguous mountain areas for pasturage; owned 200,000 head of cattle, 21,000 head of horses, 190,000 head of sheep, and 2,000 head of swine. They had under their domination 30,000 Indian converts who, under the direction of the missionaries, tilled the lands and processed the products thereof into food and clothing, besides practicing the rites of the new white man's religion. Although working cooperatively one with another, each mission was an independent unit in its agricultural and industrial activity, ruled by the resident friars under a mild sort of despotism.

Nine of the twenty-one Missions were located adjacent to the general area of Los Padres National Forest. Using their modern secularized names, San Antonio Mission, 20 miles southwest of King City, was established in 1771 by Portola's party. The following year San Luis Obispo Mission was founded, but it was not till 1779 that Carmel, located on the Bay of that name, was dedicated. Ventura, or Buena-ventura, came into existence in 1782 and as a single instance of the growth of mission wealth, eight years later owned 10,013 head of cattle and 4,622 head of sheep.

Santa Barbara Mission followed Ventura when the priests in 1786 commenced construction close by the presidial town established by the

Spanish military forces. This famous Mission greatly prospered and supported a large Indian population. Several hundred neophytes were organized into a military force by a militant priest leader when in 1818 Buenos Aires freebooters threatened to wrest California from Spanish dominance. This Indian military force later proved somewhat of a boomerang. The mission Indians resented drunken Spanish soldiers molesting their womenfolks and a battle royal ensued. Only by virtue of the superior weapons of their opponents were the Indians forced to retire from the battlefield. Two decades of patient work of the missionaries was almost lost when the soldiers fired the mission buildings and the Indians for a time reverted to a primitive existence in the nearby Santa Ynez mountains.

Purissima Mission, at the edge of Lompoc Valley, was established in 1787, and Soledad, in the middle of Salinas Valley, in 1791. San Miguel, also in the Salinas Valley, was dedicated as an important mission plant in 1797. Although Santa Ynez Mission, in the center of Santa Ynez Valley, did not come into existence until 1804, it became one of the wealthiest of the mission chain, from grain crops produced on adjacent valley lands and livestock pastured on the surrounding hills.

While the main activities of the Franciscan Missions dealt with agricultural lands, considerable dependence was placed on the nearby mountain areas. The massive hand-hewn timbers used in mission church construction were borne for miles from the higher mountains on the shoulders of Indian neophytes, whose forebears for centuries had dragged down rived boards from the same areas to build their canoes. Evidence of this early day logging was still visible in the mountains of Ventura

County when the "forest reserve" was established in 1898.

The rangy black Mexican cattle of the Missions spread into the surrounding hills and many of them were content to remain and multiply on the luxuriant grasses of the potreros found in all parts of the mountain region. Wild cattle, in the parlance of mission and rancheros vaqueros, meant those which had gone wild in the hills and were without an identifying brand or mark carried by their almost equally wild brethren grazing the gentler valley areas.

Water for domestic use and irrigation was one of the first demands of the concentrated populations of the missions. A complicated irrigation system was installed at the San Antonio Mission in the last decade of the eighteenth century and the name "Milpitas" (fields) was given to the surrounding area as indicative of the wide range of cultivated fields and gardens surrounding the Mission. The Santa Barbara Mission impounded mountain waters for irrigation and domestic use by the construction of a large earth and rock dam which served until comparatively recent years, and is still preserved as an outstanding example of mission industry. In 1798, a water power mill was erected at the San Luis Obispo Mission. The padres at the Soledad Mission built 15 miles of aqueduct which conveyed sufficient water to irrigate 20,000 acres of valley land. The Ventura Mission also had a rather elaborate five-mile aqueduct.

The secularization of the California Missions by Mexican civil authorities is a sad chapter in California history. Sadder still is the subsequent story of the Mission Indians suddenly torn loose from a well-ordered, disciplined existence which had assured ample food, shelter and bodily covering. Many of them quickly degenerated into

drunkards and petty thieves. The few who did elect to return to the native haunts of their forbears were driven from place to place by usurping white settlers and became starving, wandering outcasts in the land over which their people had ruled for ages. The shame of their treatment is set forth in detail in Helen Hunt Jackson's famous novel, 'Ramona'.

The Mexican Regime

When Mexico in 1822, after sixty-odd years of Spanish domination, cast off the shackles which bound her to the mother country, not over twenty land grants had been made in all of the California province and none at all in the region of which Los Padres National Forest is a part. In 1800, the total white population of California was somewhere around 1,000 souls--leather-jacketed soldiers of Spain, Franciscan friars, actual settlers, and a few hardy adventurers from the United States and foreign lands. It had grown but little when Mexican independence brought more liberal land laws and great cattle ranchos began to dot the California landscape.

The minimum size of the Mexican land grants was eleven square Spanish leagues (over 48,000 acres), the standard size Mexican homestead. A map of Los Padres National Forest shows many names of these old Mexican land grants. From the map of the Monterey Division such names as Los Tularcitos, Pasa de la Ositas, Rancho Las Milpitas, Rancho San Miguelo and El Piojo spring out to meet the eye. On down through San Luis Obispo County the old holdings represented by Huerhuero, Corral de Piedra, Santa Manuela, Canada de los Osos, Huasna and others, still bear their original names. In Santa Barbara and Ventura Counties the

boundaries of such old land grants as Tepesquet, Tinaquaic, Tequepis, Lomas de la Purificacion, Muestra Senora, Canada Larga o Verde and a score of others crowd up into the mountain slopes and contend for a place on the map with more prosaic Anglo-Saxon names.

While the reign of the Mexican cattle barons was comparatively brief, their use of the range lands forms probably one of the most colorful periods of California history. Cattle-raising was practically the sole industry. The immense number of cattle produced by the relatively small population brought to a peak the historical hide and tallow trade, started during the Spanish regime and carried on by Boston clipper ships and trading vessels of other nations. Richard Henry Dana has immortalized this industry in his "Two Years Before the Mast", and mentions ports of call still in use by coastwise vessels.

Virtually from the cradle to the grave, the Mexican rancheros spent most of their time in the saddle. The world has never produced finer horsemen. Unborken rides of 150 miles were not uncommon. The wiry Mexican horses were invariably turned loose with a short, trailing riata attached, to facilitate catching them when a fresh mount was needed. The horses were borken so that they knew no other gait between a walk and fast gallop and were trained to start and stop with an abrupt suddenness.

Horses became as plentiful as cattle with nothing but a limited local market for this class of stock. Rodeos were held during which they were gathered by the thousands and slaughtered to provide more range for cattle. Sometimes they were killed by the mere expedient of driving large bands over a precipitous cliff. At times leather was made from horse hides to provide sacks to hold grain, or for similar use.

The Mexican rancheros and vaqueros were as expert in handling their rawhide riatas as they were in managing their spirited horses. One of the sports of the period was capturing grizzly bears alive, several horsemen skillfully lassoing the animal, trussing him up, and transporting him a considerable distance to engage in an exhibition fight with one of the fierce black bulls, brought in from the range. The riata was also used as a crude surveyor's chain in the rough surveys which marked the boundaries of the land grants.

No work was performed afoot which could be accomplished from the back of a horse. To the hundreds of thousands of cattle roaming the hills of the region, a man on foot was an alien figure in the landscape, and foot travel over the ranges of the half wild stock was a hazardous undertaking. Outside of the friars traveling from mission to mission, who seemed blessed with special Divine protection, few essayed foot travel in those times.

Local custom sanctioned anyone catching up a loose horse anywhere and leaving his jaded steed in his stead--haltered, so as to be caught up later by some other rider needing a fresh mount. The local resident or casual traveler was also welcome to slaughter a steer for camp meat, the only rule (an inviolable, unwritten law of the time) being that he must leave the hide of the animal on a bush, tree or rock with the brand and venta mark conspicuously displayed.

Cattle were the mainstay of the rancheros. Beef formed the main item of daily diet, either on the range or at the rancho headquarters. A relatively small amount of dried or pickled beef was sold to trading ships anchored off the coast, but the principal income of the cattle barons came from hides and tallow.

Green cattle hides were universally priced at \$2.00 each and constituted in effect the coin of the realm. An arroba (25 lbs.) of tallow was also priced at \$2.00. Little cash was handled by the Californios, hides and tallow being traded to the shipmasters for dress goods, manufactured articles, luxuries of various sorts, and for foodstuffs not produced in the California of that time.

For years the standard price of live cows was \$4.00 each and oxen, gentled and broken for hauling and working, \$5.00 each. The almost equally standardized prices of some of the other agricultural products of the region were 75 cents to \$2.00 per head for sheep; \$2.00 to \$4.00 per head for grown swine; horses, \$3.00 to \$9.00 per head for broken stock, and milch cows \$5.00 each. Wheat was \$2.00 to \$3.00 per fanega (100 lbs.), and brandy \$50 per large barrel.

At the periodic rodeos which were also festive social occasions, cattle were driven to the mantanzas, or slaughter grounds, by the tens of thousands. Here they were killed and dressed, the tallow being rendered in large iron kettles. While in a melted state, the tallow was poured into a green cowhide, the edges of which had been sewn together. This container was called a "bota". Besides their two-dollar hides, the rangy Mexican black cattle produced an average of 100 pounds of tallow per animal, and if the choicest parts of the meat were saved, approximately fifty pounds of dried or pickled beef.

Rawhide was to the California Dons what buckskin was to most Indian tribes. The green hide itself was used for botas, the cured rawhide for riatas and halters. It was made into bedsprings, chair bottoms, and saddle skirts. Rawhide thongs were universally used in building construction, taking the place of wire and nails of a later

period. Long after their hides and fats had been processed in Eastern manufacturing centers, California cattle still continued to contribute to the local industry of which they were once a part. The bleached skulls were hauled by the thousands from the mantanzas to be built into fences around the haciendas, the sharp horns providing a formidable barrier to protect ranch gardens and orchards from roaming herds.

Many sailors and adventurers, attracted by the beauty of the local señoritas, the kindly California climate, and the happy-go-lucky, easy-going way of living of the cattle barons, elected to settle down in the new land. A considerable number of Americans by becoming citizens of the Mexican Republic secured land grants, married into Mexican families, and often because of their industrious and aggressive disposition, became actual leaders in their communities. Although definite figures are not available, of the approximate 1,000 Americans in the California province in 1846, it is estimated that around one-fourth were naturalized Mexicans of American extraction living in the four counties in which the bulk of Los Padres National Forest is located.

The presence of these American colonists probably had a good deal to do with the fairly easy conquest of California by American forces in 1846-47. The bulk of the Californios--the total population being not more than ten thousand of all ages--had little love for Mexico because of her neglect of the colony. Just the same, in the defense of the colony, the superb horsemen of the hills with the swinging lariat as their most potent weapon, proved more formidable antagonists than the professional soldiers in the battles that took place between the American invaders and the Mexican forces.

General John Charles Fremont, acclaimed as one of the heroes in the American conquest of California, after taking part in the Bear Flag War of the northern section, marched south from Monterey with his motley regiment of irregulars. Little trouble was encountered till it became necessary because of the coastal route being blocked by hostile forces, to negotiate the most rugged sector of the Santa Ynez Range. Here the invaders encountered lashing rainstorms, swollen streams and ankle deep mud. They lost most of their horses and mules, the brass cannon which was the pride of the regiment, and almost all of their camping and military equipment.

It was a ragged looking, poorly equipped band of warriors which reached the summit of San Marcos Pass Christmas Day, 1846. Lieutenant Edward Bryant, one of Fremont's officers, writing of the downhill journey to the sea coast and the town of Santa Barbara, said "they rolled down the slopes rather than marched." The stormy weather had moderated, however, and Bryant's current diary praises the vista of towering peaks, luxuriant shrub and flower growth, the glittering ocean waves, the peaceful appearing cattle ranches, and the spires of the old mission. He wrote: "A more lovely and picturesque landscape I never beheld."

Lieutenant Bryant's diary and General Fremont's later books recount in detail the hardships of the trip through the mountains. In after years John Charles Fremont became a large land owner in this section and his name appears in Santa Barbara County records in connection with important land transactions.

American Pioneer Days

The great gold rush days brought to the cattle barons fabulous prices for their cattle, which were shipped to San Francisco and the mining fields of the north by boat from the Monterey coast and points further south, or driven in large herds from range to market.

The excitement of the gold rush further north had the effect of relegating the story of these cattle drives to San Francisco and the Sacramento Valley to a somewhat minor place in California history of the 1850's, but color and excitement marked the progress of these trail herds north along and over the rugged mountain ranges. Battles with the elements; stampeded cattle; fights with organized bandit bands or thieving Indians, made the journey an exceedingly adventurous one, even though the profits were large.

The Mexican rancheros were dazzled by the sudden prosperity brought about by high prices and local markets. Trading ships no longer bought hides and tallow but did a profitable business in selling the stockmen almost every luxury which their vessels could bring from the Eastern coast and foreign ports. No worry for the future slowed down the extravagant way of living of the cattlemen and by 1860 many of them had been forced out of business. Not only the extravagance of the rancheros themselves, but the better class of livestock brought in by American emigrants, put the Mexican cattlemen out of business and gradually pushed the rangy, half wild Mexican cattle from the ranges.

Nature herself delivered the death blow to the easy-going luxury-loving California cattle barons. The heaviest rainfall known in California up to that time occurred in the winter of 1861-62. Thousands

of head of stock were lost in raging torrents, or even by being mired down. The standard adobe houses simply melted away under the torrential downpour which continued week after week. Over the state as a whole, this flood destroyed approximately one-fourth of the taxable property.

The Great Flood, as it was called, was followed by the worst drouth California has ever known even up to the present time. After January, 1862, no rain whatever fell during the balance of the year, and winter rains failed to materialize during 1863. The drouth carried over into 1864. From Ventura to Monterey the range became a dust bed; springs never before known to fail dried up, and the stench of rotting cattle carcasses filled the air. In Santa Barbara County alone, of 200,000 cattle yet listed on the assessment rolls in 1863, less than 500 were alive in 1864. One sale of 5,000 head of cattle took place in this county at $37\frac{1}{2}$ cents per head during the height of the great drouth.

While a special lands commission was investigating land titles and trying to make good to Mexican-Californians the promises contained in the Guadalupe Treaty of 1848, American squatters began spreading over the state. It was not the nature of pioneer American settlers to pass up fertile areas of wild lands, sketchily used by large stockmen. At first the newcomers were sometimes given small parcels of land by the indulgent cattle barons who counted their land ownership by leagues rather than by acres. Soon this practice ceased as more and more emigrants came in, and squatters' wars were precipitated, sometimes bona fide purchasers of Mexican grant lands being involved. One such struggle resulted in the death of Thomas W. Moore, wealthy rancher, stockman and asphalt miner of Ventura and Santa Barbara Counties.

Moore had purchased his extensive farm lands from the original Mexican grantee and so far as records of that time went, his title was as good as gold. Squatters located here and there on his broad domain and Moore resented their intrusion. Organizing one night, the settlers set fire to the large barn at his rancho headquarters, rightly guessing that Moore would rush out to save his beloved horses. As he came into the light of the blazing barn, he was met with a volley from the ambushed squatters and badly wounded. Lying helpless on the ground, Moore begged for his life, but one of the squatters put a gun to his head and fired the shot which killed him. Although the case was taken into the courts, no one was ever convicted for this crime of the 1870's.

Settlers pushed down the Monterey coast, taking up under Government land laws such level or gently sloping lands as existed between the seashore and the mountains, even pushing up into the range itself wherever areas involved land sufficiently gentle in slope to allow cattle to graze with any degree of safety. These isolated ranches and little communities such as Arbolado (Big Sur), Lucia, and Gorda, could be reached only by occasional coastwise steamer, or over precipitous trails. As late as the middle 1920's many of these places along a fifty-mile stretch of Monterey coast had no wagon roads connecting them with the outside world. Points up and down this coast still bear the appellation "Landing" in connection with their names, as designating a sheltered spot where small steamers might anchor or tie up in favorable weather.

Wild cattle and horses coming down from the hills swept over the Santa Maria Valley floor in vast herds in the seventies. The cattle

were hunted down with some degree of profit. Organized drives gathered and slaughtered the wild horses, since they were worth little more than in the days of the Dons. Old timers yet tell of a wild horse roundup held on the Carizzo Plains in the summer of 1894. The stock was jammed into stout corrals for the purpose of separating and saving the best animals--a milling, struggling mass of wild horse-flesh. The weather was so hot that the fine dust in the corrals actually became mud from the dripping sweat of the trapped, frightened animals.

Over on the east side of what is now Los Padres Forest, sheep were ranged in large numbers by big landowners such as General Edward F. Beale who at one time in the 1870's owned upwards of 100,000 head, grazed mainly on the public ranges. Grizzly bears were greatly feared by the sheepherders of early days and as a protection from these marauders, the stock were penned up each night in rough brush corrals located throughout the ranges. This corral was overlooked by the herder domiciled on a "tepestra",--a platform elevated on poles stout enough to resist the attack of a large grizzly, yet too small for the animal to climb. Generally, the big bears had little appetite for mutton but were a distinct personal menace to the herder himself.

The Southern Pacific Railway, already serving the country to the north and east for years previously, did not reach Santa Barbara till 1887, the first train entering the town on August 20 of that year. The county authorities and local settlers had built rough wagon roads along and through the hills of the coastal area in San Luis Obispo, Santa Barbara and Ventura Counties long before that time, connecting outlying ranches and urban centers.

The most ambitious road project of pre-railroad days was probably the San Marcos Toll Road, opened for through traffic in 1868. This road followed in general Fremont's route through the Santa Ynez Mountains. It was so rugged that in places stagecoach passengers were forced to get out and walk, while the heavy Concord stages of the time were eased down over rock ledges by means of ropes. During bad weather passengers were sometimes forced to lay over at the Kinevan stage station, some ten miles out from Santa Barbara. Sometimes the stage schedules were badly disrupted by brush fires. The charges for the traffic tunneled through the toll gate were \$1.00 for a single horse and vehicle, and \$1.50 for a team and vehicle. The charge on cattle and horses was 25 cents per head, and on sheep five cents per head. This toll road remained in operation on a charge basis until November 1, 1898.

In the last decade of the 19th century the large area of wild land which eventually became Los Padres National Forest was pretty much of a no-man's land. Hardy recreationists indulging in the sport of hunting and fishing, were well rewarded for their efforts. Wherever the topography allowed bands of sheep roamed at will and fires set by the herders not only destroyed the vegetative watershed cover but were also a menace to the small farmers who had established themselves in the valley areas and on the adjacent foothill lands. These same farmers added to the general abuse of the wild lands through the medium of fires set by themselves for land clearing and which often burned unchecked into the mountain area proper.

The large land holdings, always a feature of this region, were used mainly for large cattle operations, some of them on almost as lavish a scale as those of the cattle barons of half a century previously. In the

summer of 1896, thousands of head of cattle were branded on the San Marcos ranch alone, the roundup taking on the color of the old Mexican days. An account of this particular rodeo, one of the largest general roundups of the 1890's, stated that the greater number of cattle rounded up and branded at the San Marcos and other large ranches, had never seen a human being.

- CHAPTER III -

CREATION AND PURPOSES

Reasons for Creation of the Forest

As the population of the valleys surrounding Los Padres area increased, settlers began to adopt a less indulgent attitude towards fires burning in the watersheds, fires which often destroyed improvements representing the entire lifetime savings of some struggling farmer. A greater general loss was the protective cover itself. The dependent valley population were learning that when this vegetation, binding the soil in place on the steep hillsides, was burned off, the lowlands were flooded and countless tons of silt washed down over the orchards and farmlands.

In 1885, the Honorable Brice Grimes of Ventura publicly called attention to the fact that within the preceding four or five years several thousand acres of good farm land in the Santa Clara Valley had been covered with debris or actually washed away as the direct result of fires in the higher hills. At the same time, the State Board of Forestry, then a mere figurehead organization, emphasized the damage in Los Padres area.

During the 1870-95 period the local newspapers were filled with accounts of uncontrolled fires. One newspaper article in 1869 mentions fires raging all the way from Monterey to San Diego along the coast ranges. Through the years following, contemporary newspapers tell of uncontrolled fires burning in the watershed for weeks on end. In a report of later years, officers of the U. S. Geological Survey mention the fact that in 1894 the upper watersheds of every stream in the Monterey Division had been burned over.

Public feeling was strongly in favor of calling a halt on watershed devastation. The city of Santa Barbara had already secured two sections of land in the mountains for water storage purposes and its citizens were asking that some sort of reservation be established in the neighboring mountains and placed under a special administration. The feelings of the local populace is expressed in a written report made by the first Government agents sent out to examine the wild lands of the region.

This report stated:

"Public opinion unanimously favors the forest reserve policy of the Federal Government and ... the people have constantly urged for greater protection ... the permanent prosperity of the homebuilders is strictly limited by water. It is the lifeblood of the country Everywhere the dominant question relates to the means by which more water may be secured. The scarcity of water is the first impression that visitors receive and many who have desired to make this their home have abandoned the idea owing to this drawback. The question of increasing the supply has been considered since 1889."

It will thus be seen that in spite of other uses of Los Padres National Forest, made then or later, even back in the last century water was considered its dominant resource. In answering the problem of the local populace, the Act of March 1891 conferred on the President broad powers in creating reserves on wild lands in public ownership and gave him the authority to "set aside and reserve ... public lands wholly or in part covered with timber or undergrowth." More exactly fitting the local needs was the definition of the type of lands to be set aside as given in the Act of June 4, 1897. This Act dealing with forest reserves, in providing for the reservation of timber lands, also made watershed protection a major aim and included the wording "for the purpose of securing favorable conditions of stream flows."

Forest Reserve Withdrawals

The area at present forming Los Padres National Forest was built up piecemeal through a process of addition and elimination by proclamations or executive orders of various presidents. The first withdrawal was the Pine Mountain and Zaca Lake Reserve of 1,144,594 acres, located in Los Angeles, Ventura and Santa Barbara Counties, under proclamation of President Wm. McKinley dated March 2, 1898. An even half million acres was added to this already large reserve on June 29, 1898. The Santa Ynez Forest Reserve of 145,000 acres, lying mainly in Santa Barbara County, was created by President McKinley on October 2, 1899.

The San Luis Obispo Forest Reserve of 365,350 acres, and the Monterey Forest Reserve of 355,495 acres, both came into existence by President Theodore Roosevelt's proclamation of June 25, 1906. On July 1, 1908, the name of the first of these new forest reserves was shortened to "San Luis" and 7,360 acres of the lower-lying lands eliminated therefrom. The first President Roosevelt had added 25,105 acres to the Monterey Reserve in January, 1908.

The Pinnacles Forest Reserve of 14,108 acres in San Benito County was created on July 18, 1906, and the San Benito National Forest of 140,069 acres on October 26, 1907. By Act of March 4, 1907 the name "forest reserves" was changed to "national forests". On July 2, 1908, President Roosevelt consolidated all three of these northern withdrawals into the Monterey National Forest of 514,777 acres.

President Wm. Howard Taft, by his proclamation of December 12, 1910, eliminated 21,527 acres and President Woodrow Wilson 140,427 acres on September 5, 1916, from the Pinnacles and San Benito Forests.

Consolidation

In December 1903, President Theodore Roosevelt combined the Pine Mt. and Zaca Lake and Santa Ynez Forest Reserves into one unit which on July 1, 1908, under a previous executive order of the same president, became the Santa Barbara National Forest. At the same time the San Luis Obispo National Forest was added, but it was over 11 years later, or on August 18, 1919, that the Monterey National Forest became a part of the Santa Barbara National Forest.

Various changes in area were made by Presidents Taft and Wilson between 1908 and 1920. President Calvin Coolidge on September 30, 1925, eliminated 4,289 acres and for smoother administration transferred 265,538 acres of the east side area to the neighboring Angeles National Forest, these last changes accounting for the approximate present day area of Los Padres. (See Appendix C)

It will be seen that the Santa Barbara National Forest was the result of a consolidation of different national forest units. It was located, however, in six counties and residents of other counties somewhat resented the name Santa Barbara. Public pressure was brought to bear on local administrators to change to a name less identified with one county. The four counties of Ventura, San Luis Obispo, Santa Barbara, and Monterey, in which the bulk of the national forest was located, were all closely identified with mission history, and the trail of the Mission fathers led over the rugged slopes of the Santa Barbara National Forest. Furthermore, nine of the old missions were located adjacent to the national forest area, already replete with an atmosphere of Spanish and Mexican days. It was quite logical that the name finally chosen,

"Los Padres" (The Fathers), would meet with universal approval, so by executive order of President Franklin D. Roosevelt, dated December 3, 1937⁶, the Santa Barbara National Forest became Los Padres National Forest, "The Forest of the Fathers"--a fitting memorial to its first white users.

- CHAPTER IV -

TOPOGRAPHY AND FLORA

Diversified Terrain

A wide range of terrain is represented in Los Padres Forest. Generally the mountains are bisected by innumerable canyons here and there opening into small areas of level land, but which in the main, represent gorges split through towering cliffs.

Piru Creek in the extreme south eastern portion of the Forest, is almost as rugged as the somewhat shorter Sespe River area further west and north. On the other side of the Pine Mountain Divide, Cuyama River runs for some 70 miles through a flat plain and, cutting through the mountains towards the east amid a jumble of low-lying peaks, with the Sisquoc River forms a junction to feed the Santa Maria River.

The Santa Ynez River, rising near the boundary of Santa Barbara and Ventura Counties, lies north of the Santa Ynez Mts. This river basin is 70 miles long, averages about 15 miles in width, and drains approximately 900 square miles. Elevations in this watershed, forty percent of which is inside the national forest, range from 7,000 feet to sea level. On the south side of the Santa Ynez Range scores of short streams plunge down their brief steep courses to the ocean from their sources in the chaparral hills. The Salinas River further north is a typical California stream, its upper reaches flowing through knobby, low-lying hills. The ruggedness of the Monterey Division has been previously recounted.

Besides the fertile Ojai, Santa Clara, Santa Maria and Salinas Valleys, and the sweeping expanse of Cuyama Valley, at one time an inland sea, the other large area of flat land adjacent to Los Padres

is that embraced in the Carrizo Plain. Extending for many miles northwest and southeast, parallel to the Tremblor Range, this vast lake bed, or sink, is separated from Cuyama Valley by an extensive area of badlands, justly so-named. Frankly semi-desert in character, the Carrizo Plain is simply one of the large dry alkali lakes such as are prevalent in the deserts of Nevada and Oregon. The dazzling white deposits of Soda Lake, piled up in broken masses in the center of the old lake bed, are visible for miles across the floor of the plain.

There are no wide expanses of mesa country in Los Padres Forest but in spite of its general ruggedness, the area breaks here and there into pleasing potreros--little open flats along streams, openings in the woodland areas, or flat-topped hills.

Chaparral Slopes

The greater part of the area of Los Padres is composed of chaparral or elfin forest which forms the water filter feeding the live streams and springs, and transmits the seasonal rains to underground storage reservoirs. The chaparral growth in places reaches a height of ten to twelve feet, presenting a thick herbage cover which breaks up the falling rain that usually comes in torrential proportions during the winter months.

The underlying soil strata is held in place on the steep slopes by the root systems of this vegetative cover. The geological formation of the entire region is such that when the steep hills are stripped of this dense cover the topsoil, exposed to the impact of seasonal rains, washes away, often down to the underlying strata of sandstone or granite rock. This rock strata itself follows no general pattern and where

natural or artificial cuts have been made the rock masses are often revealed leaning at crazy angles or actually standing on end. A great many areas of sliding shale rock, devoid of all vegetation, are found in parts of the Forest.

Tree, Shrub and Plant Growth

The California scrub oak (Quercus dumosa) seldom reaches a height greater than six feet but makes up for lack of stature in its scraggly spread. It forms approximately one-fourth of the chaparral cover. A dwarf compared to other giant species of the oak family, it nevertheless produces a prolific crop of acorns and its fallen leaves form a deep soil humus. Chamise, also called greasewood, may be said to vie with the ceanothus (wild lilac) of different species as the next leading cover of the brushy slopes. The chamise burns as though soaked with gasoline, and thickets of this growth are a decided fire menace. In the spring of the year whole mountainsides break forth into colorful bloom when the ceanothus puts forth its purple and white flowers, the different ceanothus species in some localities forming the predominating vegetative cover. Manzanita, mixed in the tangled brush cover, sometimes reaches a diameter up to twelve inches.

Mountain mahogany, much dwarfed compared with the larger growth of this species found in Northern California, occupies a leading place on the chaparral hillsides. The red-barked madrone, part tree and part shrub, is common in the Santa Lucia and Coast ranges, as is the California buckeye shrub which in some locations reaches the dignity of tree stature.

Wild buckwheat is a denizen of the chaparral cover as is the California sagebrush, close relative of its desert sister, the purple

sage, and carrying the same pungent odor. Yerba Santa, the curative properties of which were passed on by the Indians to the Spanish vaqueros, and in turn on to the American pioneers, finds a place on brush-covered red Los Padres slopes.

Although not a commercially timbered forest, a large range of tree species is found within Los Padres area. On the east side of the main division coniferous forests of ponderosa and Jeffrey pine, incense cedar and white fir in a minor replica of the Sierra Nevada forests, clothe the slopes of Frazier Mt., Mt. Pinos, Moroeste Mt., and Sawmill Mt., breaking out into fairly dense stands of pinon pine on the lower lands. California juniper, usually much dwarfed, is common in the main division of the forest. Bigcone spruce is found all over the ranges of Santa Barbara County. Groves of these trees, rising here and there on the chaparral slopes, are quite conspicuous from valley points or from the ocean. Undoubtedly, these very noticeable features on the mountain landscape constituted the "forests" which Richard Henry Dana mentioned in his "Two Years Before the Mast", rather than indicating as argued by some self-constituted authorities, that large forests of this species of tree clothed the local hills in comparatively recent decades.

In the matter of unusual tree growth Los Padres has to offer the Santa Lucia fir, or bristlecone fir, which is native only to the coast range of Monterey County. The sharp, spire-like crowns of this tree are so distinctive that they can be easily recognized among other tree growth from a considerable distance. The tree could easily be called "glisten-cone" fir, since the globules of pale, resinous pitch oozing out over the cones glisten like Christmas tree ornaments in the light of the sun.

In the Monterey Division also is found the rather rare, grotesque-

appearing, native Monterey cypress and here also is the native home of the somewhat prolific, adaptable Monterey pine. The southern redwood belt extends along the west side of the coast mountains up to elevations of 3,000 feet as far south as Salmon Creek, the limit of its southern range. This famous California tree reaches its best development in Los Padres Forest in the vicinity of Big Sur. Sugar Pine of a fair size is also found in the Monterey Division, as is also ponderosa pine and tanbark oak growing among the redwoods. Salmon Creek is also the extreme southern limit of both the tanbark oak and Douglas fir.

Nearly all the oaks indigenous to California are found along the lower reaches of the forest, the coast live oak being the most common-- in fact, it may be said to be the leading native tree species of the region. These oaks grow to an immense size, as do the valley white oaks further back from the coastal area. Bigger, or gray pine, with its open network of branches, is a denizen of the interior sections, and groves of giant-coned Coulter pine are found here and there. The scraggly knobcone pine, the adamantine cones of which open only when exposed to intense heat, is found through central Los Padres. Even though its growth demands are quite modest, the knobcone, hailed by some conservationists as the proper tree growth to replace the native chaparral, has made no great headway in the local national forest.

The California sycamore with its spotted, divided, sprawling trunk, is the most conspicuous tree of the canyon bottoms, and is generally found in a surrounding setting of cottonwoods, willow, box elders, and lesser trees. The rocky canyons are usually choked with a luxuriant tree and shrub growth.

Flowering plants and shrubs bloom in profusion over the area of Los Padres Forest generally. The first foresters making a detailed survey of the main division in the opening years of the century, besides checking 23 species of native trees, listed 116 species of shrub and lesser plant growth. The showy *Fremontia* is quite common as are the bush poppies and the delicately-colored bush phlox. The potreros in springtime present a mass of waving bloom, the bright-hued flowers standing in bold relief against a darker background of luxuriant grass growth, saddle high.

The *Matilija* poppy, native of the San Rafael Mountains section of Los Padres Forest, is probably the sweetest scented wild flower in the state. Growing on bushes three to six feet and higher, the texture of the blossom is as fragile as a butterfly's wing. It is also known by the more mundane name of "fried egg plant" since the large blossoms with their bright yellow centers and white borders bear a striking resemblance to that breakfast dish.

At various periods during the spring and early summer months, whole hillsides glow with masses of golden California poppies, purple lupine, the rusty red of the Indian paint brush, or the delicate pinks and whites of ground-hugging flower varieties. The tall yuccas with their showy white flowers dominate some of the sage-covered hillsides. Shooting stars, pentstemons, different flowers of the bell type, and practically all the species of California wild flowers are found in abundance.

While the hills in general turn brown and sere during the rainless summer months, areas close to the sea coast--under the influence of prevailing fogs--maintain their wild flower gardens the year around. Notable among the everblooming species are the bush poppy and bush phlox. In the early winter months masses of Toyon, or Christmas berries, adorn

Los Padres hills, casting a scarlet sheen over the chaparral areas
in which they grow.

- CHAPTER V -

NATURAL RESOURCES

Water

Water - too much sometimes, too little at others - was the chief reason for the establishment of Los Padres National Forest. Although great progress has been made through the years, in this year of 1945, Los Padres water problems have not as yet by any means been solved.

The intensely-developed valleys and urban centers adjacent to Los Padres brush-clad hills are absolutely dependent upon local water supplies. There is not the slightest hope of relief by imported waters and the watershed cover which catches the winter rain, delivering the water through its root systems into underground channels, or easing it on the surface without erosion into living streams, is the only source of supply. One notable California writer has capably phrased this dependence on the wild land slopes as follows:

"Dame Nature knew her business when she developed the chaparral. Without it the mountains of the southwest would be stark pinnacles and naked ridges, the foothills barren, rock slopes, and the valleys nothing but beds of cobblestone and gravel."

Except for the indefatigable work of the mission padres, diversion of water from the nearest live stream represented about the extent of water development in this section up to the 1870's. About this time a good supply of artesian water was discovered in Lompoc Valley, but grain and cattle, the chief crops, called for little or no irrigation. In 1889, seventeen wells were bored in Lompoc Valley, averaging 180 feet in depth, produced good artesian flows for a few years, then started to

decline. These pioneer wells were practically wiped out of existence by a severe earthquake in 1902.

Probably no part of California has experienced greater struggles for an adequate water supply than the city of Santa Barbara and the surrounding valley. World famous because of the natural beauty of its setting between the mountains and the ocean; for its historical associations; its past and present cultural atmosphere; its diversified fauna, and its equitable frost-free climate, Santa Barbara has been variously described by such exaggerated terms as "an earthly paradise" and "a heaven on earth".

The population of Santa Barbara increased some sixteen times between 1890 and 1941 - the same approximate population increase, incidentally, as that of the entire Los Padres area. The average annual rainfall at this point over a period of 37 years up to 1904 was 16.78 inches, and over a period of 76 years up to 1943, an annual average of 18.36 inches. In the Santa Ynez Mountains, the slopes of which rise abruptly from the heart of the city itself, the rainfall increases approximately .06 inches for each 100-foot rise in elevation. There is an ample water supply, therefore, if the winter rainfall can be properly conserved.

For decades the water needs of Santa Barbara were served by wells and minor storage reservoirs on the short creeks extending from mountain to ocean, but towards the end of the last century it became apparent that a greater source of supply must be found. Surveys carried on from the latter eighties proved that a sufficient supply for the growing city could not be secured from the coastward side of the Santa Ynez Range, so it was quite logical that engineers should cast longing eyes on the Santa Ynez River, conveniently at hand.

The Santa Ynez River, however, lay entirely on the other side of the mountain range and to tap its waters a tunnel must be driven through the mountain itself. By the turn of the century, Santa Barbara had become somewhat accustomed to water tunnels, since city employees starting in January, 1896, drove one into the heart of the mountain, 1,400 feet above sea level. Flows of underground water were encountered almost immediately and these were conducted by gravity to the city reservoirs on a lower level, supplementing the supply already being secured from Mission Creek and bored wells.

By January, 1904, the city tunnel had been driven 4,985 feet into the heart of the mountain and underground waters tapped were delivering a minimum of 300,000 gallons daily, giving the city and its environs a total supply of 700,000 gallons a day, but still some 500,000 gallons short of the estimated daily needs for a city of 8,000 people, plus a certain amount of irrigation of adjacent lands. The interior end of the tunnel was yet some 15,000 feet from the bed of the upper Santa Ynez River.

Meanwhile, J. B. Lippincott, a competent engineer of the U. S. Geological Survey, had been engaged to investigate the potential water supplies of both Santa Barbara and vicinity, and the surrounding territory southeast into the center of Ventura County. Lippincott became in a sense the father of the Santa Barbara project. Once in his ramblings along the upper Santa Ynez River his mule strayed and in the ensuing search for the animal, he discovered the natural reservoir site on which was later built the Gibraltar Dam. His final comprehensive report recommended construction of this dam to impound the Santa Ynez water which

would be conducted through the then partially constructed tunnel to the Santa Barbara plain. All the factors were worked out to the last engineering detail by the Federal investigator and George Wright, city engineer.

In December, 1903, Lippincott jubilantly announced that Santa Barbara's water problem was solved for the next 50 years and that the planned water system would take care of an urban population of 45,000 people. Lippincott and his associates perhaps had some premonition of what might happen if adequate protection was not afforded the vegetative cover of the 200 square miles of adjacent watershed, since in Lippincott's book on the subject, printed in 1905, he stresses this need as one of vital importance, recommending besides protection from fire the elimination of sheep grazing entirely from the watershed.

The Gibraltar Dam, started in 1920, was with its companion water tunnel, completed in 1921. The dam was 984 feet long, 157 feet high, 75 feet thick at the base and 18 feet thick on top. The reservoir covered an area of 325 acres at crest stage, and boasted a storage capacity of 14,500 acre-feet of water. Most Santa Barbarans believed their water problem solved for all time.

Siltation began almost immediately, soil erosion being helped along by periodic brush fires. By 1931 the storage capacity of the reservoir had shrunk to 12,672 acre-feet; by 1938 to 9,170 acre-feet, and by October 1, 1944 to 7,773 acre-feet, slightly more than half of its original storage capacity. The urban population had grown from 20,000 in 1920 to 40,000 in 1944, besides personnel of military and naval establishments dependent upon the same waters. Santa Barbara was again faced with a serious water problem.

Fires started by human agency in the area of the watershed accounted for a lot of this siltation. Restrictions placed on its use to reduce or eliminate this menace will be later recounted. Meanwhile, the rate of siltation of the city's water supply reservoir was considerably checked with the construction of the Mono debris dam in 1936 and the Caliente dam the following year, projects undertaken by the Forest Service, using CCC labor. The Mono reservoir with a capacity of 800 acre-feet was completely filled with silt to dam level from the winter rains of 1936-37 and the great flood of March 1938. The Caliente is still catching silt which would otherwise go into the Gibraltar reservoir and at present is also filled with such silt almost to its full capacity.

Silting and flood damage were not the only water problems of the Santa Barbara area. Some years after the City of Santa Barbara had constructed the Gibraltar reservoir on lands given to the municipality by the Federal Government, water users further down the stream with riparian rights under the English common law brought suit against the city. This precipitated the nationally-known Gin S. Chow et al case which reverberated through the California courts for years. The final decision was that riparian owners were entitled to water representing the normal flow of the stream and that thirsty Santa Barbara was entitled to any excess or flood waters. This decision, which set a state-wide precedent, was upheld in 1933 by the highest court in the land. Since in the average year there were plenty of flood waters in the Santa Ynez, there was no scarcity of this vital natural resources for Santa Barbara's use.

The history of Santa Barbara water is somewhat of a parallel to the water problems of Los Padres area in general. The mountain region

if adequately protected, will furnish sufficient water to fill reservoirs for gravity irrigation and domestic use and to maintain underground water levels, even with increased land use and a heavier population. Annual precipitation, averaged over a long period of years, is 14 inches at Salinas; 15 inches at Paso Robles; 26.33 inches at Santa Margarita; 21 inches at San Luis Obispo; 20 inches at Ventura and Ojai; and exactly 12 inches on the edge of the dry Carrizo Plain.

The fact of increase in precipitation as elevation rises was most unusually illustrated by rainfall volume registered in recent years at Cold Springs in the Monterey Division, approximately 200 feet below the actual summit of the Coast Range. Here in the early 1930's a crude rain gauge was installed. It had a capacity of 110 inches but ran over the first winter it was in use. Current checking was impossible during the winter season, so a better installation was made providing for a cumulative capacity of 125 inches. This also overflowed. Still later, standard up-to-date equipment was put in place and this gauge, with a capacity of 150 inches, resulted in a true record^d of 126 inches of rainfall during the winter of 1939-40. Down at the ocean's edge, some five miles distant-air line, the average annual precipitation is around 40 inches.

Most of Los Padres streams are typically Southern Californian, where rivers during flood periods, after issuing from the confining hills, usually leave their natural beds and go wandering over the landscape, silting orchards and spreading boulders over the farmlands. The Sespe, Matilija, Santa Clara, Ventura, Santa Ynez, Sisquoc, Salinas, and lesser streams are often raging torrents during flood stage, to shrink to mere

rivulets or go dry entirely during midsummer.

Flood control has been, and always will be, a big part of Los Padres water conservation program. The water situation, particularly in Santa Barbara County, demanded action and in spite of impending war, the Forest Service at the request of the War Department and other interested agencies undertook detailed flood control surveys in that section during the years 1939 to 1942.

The Santa Maria watershed was the subject of one of these fact-finding surveys. The watershed embraces 1,978,720 acres, roughly divided into 40 percent forest - mainly chaparral cover; 40 percent woodland; 10 percent sand dune wastes, and 10 percent intensively-cultivated lands. In the valley areas the Santa Maria river bed is silted to the bank level and costly annual patchwork flood control is necessary. The survey disclosed that adequate flood control and fire protection of the watershed for 50 years would cost a maximum of \$4,723,200. Against this the minimum benefits to be derived from proper upstream flood control amounted to \$5,962,200.

In the Santa Ynez watershed damaging floods occurred in 30 of the 110 years between 1810 and 1940, some of them assuming disastrous proportions. The 1941 and 1942 flood control surveys conducted by the Forest Service showed the flood peak of the parent stream to be 110,000 cubic feet per second and that upstream control and adequate fire protection would reduce this flood peak to 90,000 cubic feet per second. The cost of control and protection would amount to \$199,900. Reduction in flood damages figures out to \$46,400 per year and other benefits such as increased farm income and reduction of silt in reservoirs

were valued at \$372,800, or a total value of \$419,200 annually - a ratio of benefit to total cost of 2.10 to 1.00.

At the present time the U. S. Reclamation Service is working with county authorities on a county-wide water plan of which the city water supply is made a part. It will cost a lot of money, but not at all out of proportion to the benefits to be derived. This time long range planning takes a leading place in the picture, with inevitable population increase a major factor in the permanent water plan.

Timber

Although Los Padres is properly termed a "non-timbered forest", considerable value was placed by the Forest Service on such timber as existed, before modern transportation facilities made outside lumber and oil fuel more easily available.

The first detailed examination made by Land Office specialists in 1904 classified lands within the forest reserve of that time as follows:

Timber (in Mt. Pinos region & scattered areas)	101,460	acres
Woodland (mainly oak, pinon and juniper)	256,264	"
Chaparral (all brushfields)	1,259,960	"
Grazing lands (open areas)	162,683	"
Barren lands	52,947	"
Cultivated lands (inside Reserve boundaries)	21,645	"
	<u>1,854,959</u>	acres

Crude as their land classification might have been, these officers accounted for every acre within the forest reserve boundaries, spending long months of hard field work to secure their data. They estimated the total sawtimber stand at 374,186,000 board feet, approximately half of which was Jeffrey pine, the two species showing the next highest volume being big cone spruce and sugar pine. Their definition of sawtimber was rather broad since they listed 16,770,000 board feet of gray (digger)

pine. In addition to that classed as commercial sawtimber, these early-day land examiners credited the reserve with a stand of 1,393,400 cords of single leaf pinon, oak, sycamore, and other minor species of cordwood.

That same year these two land examiners, Fred G. Plummer and M. G. Gowsell, investigated the lands to be included within the San Luis Obispo Forest Reserve. Of this area of 316,237 acres, they classified only 2,120 acres as timberland, 72,290 acres as woodland and most of the balance as chaparral forest. They estimated a sawtimber stand in the San Luis Obispo area of only 2,820,000 board feet, mostly Coulter pine, and a volume of 295,960 cords of wood, mainly of the oak species.

In 1905 all logging operations on the forest reserve were confined to the slopes of Mt. Pinos where a sawmill had for some time previously cut timber for mining interests and local settlers. The entire cut of this mill between 1898 and 1904 was approximately 200,000 board feet. An older mill, located at the foot of Sawmill Mt., in the same general area, had confined its cutting for years mainly to big cone spruce, the lumber of which even in a section where sawn boards were scarce proved unsatisfactory to local settlers in Lockwood Valley and neighboring areas. Some of the trees of this species, though, were 36 inches in diameter, 125 feet tall, with a clear bole for 125 feet. An old sawmill on Manzana Creek manufactured boards from digger pine for the use of nearby isolated settlers. Strangely enough, an old house in that vicinity built well over half a century ago with lumber from this species of tree, still stands in fair condition.

The self-contained ranchers of the isolated Monterey coast rived the straight-grained redwood for various farm uses, and as a supplement to their farm income cut a considerable quantity of tan bark which was

shipped by steamer to northern ports. The last material cutting of tan bark took place during 1919 to 1921 when 400 cords - 2,400 pounds to the cord - was covered by a Forest Service sale made to D. O. Druffel in Anastasi Canyon. The venture did not pay, and the operator quit. A small sawmill was operated in the vicinity of Big Sur in the same section up into the second decade of the century.

The total timber of all species cut on Los Padres between 1911 and 1916 ran~~d~~ from one-half to one million board feet annually. During the years since, the total annual cut of timber has amounted to only a few thousand board feet annually, comprising mainly fuel wood and fence posts cut by local settlers.

To determine the volume of timber in the Mt. Pinos section of the national forest, a timber reconnaissance party under the supervision of Wm. B. Greeley, afterwards Chief Forester of the United States, carried on operations during the winter of 1905-06. The field party consisted of the late Wm. G. Durbin, afterwards supervisor of the Modoc and Lassen Forests; Phil T. Harris, an old time forest officer; Jacinto D. Reyes, famous in California Forest ranger history, and part of the time two young forest assistants newly assigned to duty in California national forests.

Except for Reyes, the men of the party had come from cold, high Sierra, and envisioning Southern California as a land of sunshine and winter roses, arrived ill-equipped for battling the snow and cold at 4,500 to 8,000 feet elevation. The party suffered considerably until outfitted by warmer clothing secured from stocks kept at the mines of the region. Sometimes the young foresters got lost and it was necessary

for Durbin or Reyes to guide them back to camp by loud hallooing signals and on some occasions to flag a line back to camp.

It was hard going even for the older foresters, since the party left their shack camp before daylight and returned after nightfall, generally regardless of weather. They laid off work on Sundays to wash their clothes and cut firewood for the following week. They also took Christmas Day off and feasted on turkey. Once one of the young foresters accidentally pushed Reyes' prize snow boots too close to a red hot stove with the result that the ranger suffered frozen feet when the leather gave away. Reyes did not lay off work, however, but keenly remembers forty years later how he suffered until he was able to buy a pair of new boots from a miner. The results of this winter's timber cruise showed a stand of sawtimber, mainly Jeffrey pine, of 12 ^{thousand} million feet per acre on an area of several thousand acres.

With the more pressing need of timber cruising in the commercially-timbered national forests further north, it was not until 1926 that an overall extensive survey was made of Los Padres timber stand. That year O. M. Evans with a field party made a reconnaissance of the timber resources of the Monterey Division. Although some redwood trees were found up to 80 inches DBH, and containing eight 12-foot logs, the total stand of redwood was established at 80 million board feet. This redwood timber grows in clumps on north slopes and in the canyon bottoms and has a companion stand of 20 million board feet of Ponderosa pine, 8 million board feet of Coulter pine and 5 million feet of sugar pine, on a total timbered area of only 2,430 acres.

Evans also correlated the results of local timber cruises through the years and gave the total stand of sawtimber species on the entire

present area of Los Padres Forest as follows:

Ponderosa pine and Jeffrey pine	381,000	M ft.,	B.M.
Sugar pine	23,000	" "	" "
White fir	46,000	" "	" "
Incense cedar	7,000	" "	" "
Coulter pine	15,500	" "	" "
Big Cone spruce	29,000	" "	" "
Redwood	80,000	" "	" "
Gray Digger pine	2,000	" "	" "
Total	583,500	" "	" "

The survey also showed a total additional timber stand of 1,455,000 cords of non-sawtimber species.

From a commercial standpoint, lumbermen and foresters may well smile at the figures on Los Padres' coniferous timber stand. However, these trees have a high aesthetic as well as a watershed value. Groves of trees are found fairly well distributed here and there over the Main Division and constitute attractive little pine forests in such areas as the slopes of Figueroa Mt., Little Pine Mt., Mission Pine Ridge and Big Pine Mt., besides the real forested area of some 36,000 acres in the Mt. Pinos Section.

Range

One of the main activities of the first rangers on Los Padres Forest was the settlement of grazing disputes. When the reserve was first established, large bands of sheep were grazed, particularly in the Mt. Pinos and Cuyama sections. Transient sheepmen had a decidedly bad reputation because of their propensity to burn the range. The transient sheep were banished entirely from the range during the first years of administration, leaving its use to the actual settlers and local landowners. Several large livestock owners, by virtue of their long years of use and extensive land holdings, continued to use their particular

section of the range with large numbers of stock. One such large outfit was the Kern County Land and Cattle Company which grazed thousands of head of cattle and sheep in the Mt. Pinos District.

On the whole, the big owners warmly welcomed forest reserve administration which banished the nomad stockman with no vested interests from the range. Most of the early-day rangers' troubles were with the stockmen of smaller caliber who often resented any interference in the use of the public range--sometimes a landlocked canyon adjoining his own farm holdings. Some users of community ranges were constantly bickering, coveting the forage consumed by their neighbors' cattle.

One stockman boasted that he would do the local ranger bodily harm or have him removed from his position if he did not get what he asserted were his rights. The ranger called the community range users together for a day's ride over the range and a conference to settle the joint use of the area. The day's proceedings were somewhat quarrelsome and noisy, and the tensed permittees were at times close to reaching for their shooting irons. The chief offender who had boasted previously what he would do to the forest ranger became more abusive as the day wore on, but the unarmed ranger good-naturedly explained the Government regulations and the basis of joint range use. The forest officer actually lost face with the other stockmen as the belligerent one resorted at times to personal insult.

As the party broke up to return to their respective homes, the ranger rode up in front of the offending stockman, smilingly unpinned his badge and demanded an apology as the alternative of the stockman getting a sound thrashing before his fellow permittees. The big cowman looked over the still more powerful physique of the ranger, hedged a

moment or two, expressed regrets for his personal remarks, and agreed to abide by the range regulations. The forest ranger concerned stayed on that particular district for many years thereafter.

In 1901 Supervisor Willis Slosson recommended that a reasonable number of sheep belonging to local stockmen be allowed to graze, even though the Land Office regulations did not favor this class of stock on the new reserves. At the same time he gave the carrying capacity of the Eastern Division of approximately one million acres as 15,000 head of cattle. He revised these figures in 1902 with the statement that only 150,000 acres of that section were suitable for livestock grazing, with a capacity of 6,000 head of cattle in dry years and 12,000 cattle in years of good rainfall.

As late as 1906 Ranger John Riis guided 30,000 sheep through the east side of the Santa Barbara Forest, and it was not until some years later that trailing to markets with lambs and returning to the home ranges with grown sheep was entirely forbidden. In 1913, a member of the Chief Forester's staff on an inspection tour over the area, reported that "next to fire protection, grazing is the most important activity on the Santa Barbara Forest".

One of the sore spots in early grazing administration was the existence of Los Prietos Najalayegua Rancho, a tract of land, 2 to 6 miles wide extending up and down the Santa Ynez River for 22 miles, which actually split the forest reserve in two. This large Mexican land grant of 48,728 acres was confirmed by the United States to Jose Domingues in 1875, but through the years had passed into the hands of non-resident owners. These owners leased the land for all they could get out of it and it was being grazed in the late nineties and early 1900's by several

thousand sheep, goats and cattle, mostly belonging to transient owners. The overgrazing and the numerous fires which had marked the history of the area for several decades were decidedly checked when on August 16, 1904, Jed L. Washburn and wife quit-claimed the entire area to the United States of America under the provisions of the Forest Lieu Selection Law of June 4, 1897, and the lands became part of the forest reserve. This tract of land has since become the most intensively-used area within Los ^Padres National Forest.

Up in the Monterey section where small stockmen had for years run their cattle, horses and hogs on the range to suit themselves, forest officers had considerable trouble in trying to educate the settlers on conservative range management and to convince them that formal grazing permits were necessary on national forest land. Over on the coast side of the district, R. M. Diggs in 1912 took the attitude that since stock permitted to pasture on Government land grazed over his own unfenced holdings, he had every right to run his cattle and hogs on public lands without the formality of securing a permit therefor. It took the local rangers some time to adjust range matters with this permittee.

In the Janesville section of the Monterey Division, lived several small law-abiding stockmen who were unanimous in their complaints against Frank Bruce who had acquired a hill ranch and several hundred acres of unfenced wild land. They were quite justified in their complaints, since it seems that Bruce's half wild hogs rooted ^{up} ~~ea~~ their gardens and orchards, and even broke into their cellars and outhouses.

Frank Bruce was a persistent trespasser on Government lands with his cattle, horses and hogs. His depredations continued through the years from 1912 to 1934 even though a restraining court order was issued in

1923. District Ranger Harry M. Hunt, in a trespass report in 1919 described this middle-aged farmer as "an uneducated, ignorant though shrewd chap, willing to make any kind of an agreement to get out of a tight place and as soon as he thinks he has cleared himself fails to keep his agreement".

Regional officers, the forest supervisors, district rangers, and guards were all mixed up in Bruce's quarter-century trespassing record. For years he took the attitude that he was a much persecuted man who had incurred the unjust enmity of the Government officers and his neighbors. Patiently the local rangers showed him his unfenced land lines and finally had them officially surveyed and staked out. Bruce claimed that the surveyed lines were located a mile from the lands which he actually owned and on one occasion in 1923, District Ranger A. C. Chamberlain wrote him: "It does not matter to me where you claim your land. It belongs on the hill in Section 36 and so far as the Government is concerned, it will remain there."

Bruce's trespassing continued and Ranger Chamberlain, evidently somewhat hot under the collar again, wrote him in 1926: "Even if you were told that Section Thirty-Six should be some place else...it is where Deputy United States Surveyor Hall made it, right or wrong." Bruce's trespassing ceased when forest officers, despairing of any good effect from persuasive action, got out an injunction against him.

Large land holdings have been a common feature of the territory adjoining the southern portion of the Monterey District. In 1927, the Milpitas Ranch, owned by J. M. Brown and E. L. Ayre, covered 40,000 acres and was valued at \$400,000. Further south the Newhall Land and Cattle Company owned 52,000 acres, worth \$300,000. The millionaire

newspaper publisher, William Randolph Hearst owned an empire of land extending from his castle on the hills above San Simeon to the sea coast and running for miles in other directions. This was one of the largest livestock ventures of the state, the immense land holdings representing a consolidation of several old ranchos of the Mexican regime as well as scores of patented homesteads of the later American pioneer era. When in 1931 the Forest Service was negotiating a large scale land exchange with Hearst involving small isolated tracts of Government land in Monterey County, a storm of public protest arose, although from the standpoint of public values the Government was getting very much the best of the deal. The later land exchange transactions covered a large area in seven national forests of California.

By 1910 Los Padres range use had settled down to a fairly well established routine. That year there were 316 permittees grazing 12,294 head of cattle and horses, 7,500 head of sheep and 60 hogs under formal grazing permit. Sheep were no longer allowed on the steep, erosive chaparral slopes and except for some minor backyard grazing, sheep husbandry was confined to the timbered and woodland area of the extreme eastern portion. The Kern County Land and Cattle Company, in addition to their large cattle interests, grazed approximately 3,500 head of sheep in that portion of the forest till 1935, when they changed to exclusive cattle production.

In 1911, out of a total of 290 permittees, 231 grazed only one to forty head of cattle and horses each. With the abandonment of much submarginal farm land homesteaded in adjacent areas during the 1890's and the first decade of the twentieth century, both the number of permittees and number of stock declined in number, there being 160 permittees pastur-

ing 8,500 cattle and horses on national forest land in 1931. Many farmers formerly engaged in range livestock production, had also turned to farm dairying, fruit farming, or to other lines of agriculture. (See Appendix D).

There have been comparatively few wild horses on the range in recent years. Wild cattle continued to be a menace in some sections, and special permits to hunt them down were issued by the Forest Service. These animals were fierce creatures and when cornered would fight with the ferocity of a grizzly bear. Even when captured quite young they could not be domesticated. Not over fifty head remained in the remote Hurricane Deck section in 1940, several being killed by local forest officers that year. That same year a trio of hard-riding Texas cow-punchers undertook to bring to market the small number yet ranging in that region, but finally gave up the job as a financial failure.

Recreation

It would be quite natural in a mountain region of two million acres to find many areas lending themselves to outdoor recreation, and such use of Los Padres National Forest is enjoyed by a large urban population extending as far south as Los Angeles.

To the angler, Los Padres has not the attraction possessed by better watered mountain sections. While there is trout fishing season-long on some few creeks of the Main and Monterey Divisions, generally the best fishing is over by the end of June. Salmon run up some of the short streams of the Monterey and large steelhead by the thousands push their way up the Santa Ynez River in March and April to reach their spawning grounds. Restocking streams is a current necessity and in the dry

summer months the State Division of Fish and Game must often carry on rescue operations, to remove to the more permanent streams sizeable trout marooned by receding waters.

The newspapers of the 1890's make frequent mention of camping, hunting and fishing in the more accessible spots in the mountains. The diaries of the rangers of 1898 and 1899 indicate that one of their activities was following up campers and putting out the camp fires that they had left burning. In a formal report in 1901, Forest Supervisor Slosson mentions that "campers are now sprinkling water on their camp fires". That same year a Sunday supplement of a Los Angeles newspaper extols the east side of the Zaca Lake and Pine Mountain Reserve as a "paradise for the hunter and fisherman".

In the Monterey Division the land on which Tassajara Hot Springs is located was patented under the Homestead Law to Wm. Hart on January 7, 1885, and early became a favorite resort. Private resorts at Big Sur and in other accessible places catered to outdoor recreationists during the first years of the century.

An order of the Secretary of the Interior, dated May 22, 1902, prohibited carrying firearms in forest reserves except under permit issued by forest officers and for the next two years the issuance of such permits bulked as a large item in the paper work of field officers during the open deer season. In the light of hordes of recreationists visiting the national forest when later gas-propelled vehicles became the chief mode of travel, the "crowds" of hunters mentioned by the rangers of 1903 seems a decidedly misplaced term.

In his monthly report for July, 1902, Supervisor Slosson mentions 303 firearm permits issued that month for the east side of the reserve.

Ranger H. H. Douglas issued 11 gun permits in August, 1903; another ranger made out 55. As he listed the names of permittees in his reports to his superior, he added, "and still they come". Ranger G. V. Reyes the same year reported the issuance of hundreds of firearms permits and in commenting on a doe-killing case stated: "That is the way most town sports do--shoot everything they see."

It is perhaps not surprising that campers and recreationists, few of whom had been educated to proper conduct in the great outdoor, were none too popular with the forest rangers of early days. In 1901, a city writer who had enjoyed an outdoor vacation in the national forest, lauded the work of the rangers in handling the camping public. He cited an instance of one of them who rode all night from his cabin on Pine Mt. to put out a camp fire left by a careless hunter, asserting that the ride "was over trails so precipitous that the average experienced mountaineer would tackle them only in broad daylight".

As through highways were built and trails opened up into the back country, the ever-increasing use of the automobile brought more and more recreationists to the local national forest area. The few hundred campers, picnickers and sportsmen of 1905 had grown to an estimated 55,000 in 1925; 82,700 in 1930; 109,400 in 1935; and 308,300 in 1941. In the last named year, in addition to campers, picnickers and sportsmen, over five-million transient motorists passed through Los Padres National Forest over main highways. In the years of 1939 and 1940, the newly-completed U. S. Highway No. 1, traversing the scenic Monterey coast, was crowded with out-of-state cars.

In 1939-40, Kern County did considerable development for winter sports on their own lands at Mt. Noroeste, in the high country on the

eastern side of the forest, and like improvements were made in other sections of deep snows by the Forest Service, but over five thousand people from the warmer sections satisfied their "snow-hunger" there. Most of such recreationists preferred the better developed ski runs and resorts of the San Bernardino Mts. and the Sierra Nevada.

The Forest Service met the ever-increasing public demand for outdoor recreation facilities by building improved public camps. At first these were merely favored camping spots which were fire-proofed and equipped with a few rough tables and fireplaces. As the demand increased, larger camp and picnic grounds were constructed. At the start, these were equipped with the famous sheet iron stove fabricated by the Forest Service from discarded ice cans, but later with a standard iron stove set in rock-work or cement, and with heavy, durable wooden camp tables.

By 1940, Los Padres National Forest had a total of 354 improved camp and picnic grounds. Some 290 of these, however, located in the back country, were merely trail camps at which a spring had been developed to insure pure drinking water, and safe fireplaces and a table or two installed.

Camp ground development close to highways and along main roads was much more elaborate. The 64 camps of this latter class were equipped with sanitation facilities, piped water systems, up-to-date barbecue pits and campstoves, and similar conveniences. As evidence of the public demand and use, the number of this type of camp ground had grown from 18 in 1921, and 21 in 1932.

Wheeler Gorge Camp on the Ventura-Maricopa highway; the series of camps along the Santa Ynez River just over the mountain range from Santa Barbara; the extensive camping units on the pine-clad slopes of

Figueroa Mt.; the Abbot Lakes development in the Monterey Division, and the various camps in the Mt. Pinos recreational area are illustrative of the more highly developed public camps. In pre-war years these areas were crowded by campers and picnickers during the summer months, particularly on weekends. While recreation travel has been materially reduced during World War II, military units frequently substituted for the former public users, as they moved in for a few days' training and relaxation, away from the hot valley military cantonments.

In the early thirties, with the improvement of Highway 99 over the Tehachapi, thousands of Los Angeles motorists discovered the Mt. Pinos area, lying approximately 75 miles from the heart of the Southern California metropolis, as did also the residents of the nearby, hot southern San Joaquin Valley. Kern County itself owned considerable land within the area and undertook a rather extensive recreational development program, supplementing that of the Federal Government.

In January, 1933, an area of 36,625 acres was set aside by the Regional Forester in the Mt. Pinos region, called the Sanctuary of the Pines, and dedicated mainly to recreational use. The wording of the order covering this action included: "Proper and orderly use of timber, forage, and other economic resources shall be allowed within the area, but such utilization shall not be permitted to impair the value of the area for recreational purposes."

Two primitive areas in which lands are to be left as nearly as possible in their natural state without encroaching man-made improvements, exist on Los Padres Forest. The San Rafael Wild Area, the creation of which was strongly endorsed by local civic bodies, was set aside in the Main Division by Chief Forester R. Y. Stuart, January 19, 1932,

approval of a revised area being made in 1936. This territory includes 74,990 acres located in the drainage of the Santa Ynez and Sisquoc Rivers, 820 acres of which is alienated land. Eighty-six per cent of the area is chaparral, the balance grassland, woodland and coniferous timber.

The Ventana Wild Area, located in the northwest section of the Monterey Division, was first set aside by the Regional Forester January 7, 1929, but did not receive final Washington approval till July, 1937. This section of rugged wild land embraces 55,884 acres, of which 44,184 are also chaparral. The balance is redwood and coniferous forest and the more open woodland type with elevations ranging from 1,200 to 4,833 feet. Alienated land within this area totals 2,990 acres.

Trail trips into the back country are a popular diversion on Los Padres Forest in peacetime years. The Coast Ridge Trail, which extends along the summit of the Coast Range in Monterey County for 65 miles, is one of the most popular trail travel routes. The rugged mountain scenery blends with remarkable vistas of the Pacific Ocean thousands of feet almost directly below. Recent fire protection developments in the region have substituted a motorway along the route of this trail for approximately half the distance.

In peacetime years also, in the central part of the Main Division of the forest, the annual ride of the Rancho Visitadores takes place, commemorating the hospitality of the old time Californios. The organization which carries on this annual horseback pilgrimage through the Santa Ynez and San Rafael Mts. is composed of wealthy men and celebrities from all over the nation--millionaire manufacturers, movie stars, writers and artists. At this gala outing, probably more fancy saddle stock and expensive riding equipment is represented by this cavalcade of hundreds

of horsemen than can be seen anywhere in the United States in one place at a time.

Wild Life

Los Padres Forest has a large and varied wild life population. The prong-horned antelope and valley elk, formerly a feature of that region, had all disappeared from the Cuyama area by the early eighties. Most of the Forest area was at one time noted for its huge grizzly bears which until the mid-seventies took a heavy toll of domestic stock. George Nidever, a Tennessee hunter who came to California in 1833, was reputed to have killed hundreds of these animals between Monterey and Ventura in his capacity of professional hunter for the stockmen of the region. Just before his death in Santa Barbara at the age of 83, Nidever gave an exhibition of crack marksmanship which amazed even expert rifle shots.

Practically the last member of the grizzly bear tribe to roam the local hills was known as "Clubfoot" because in his younger days he had lost several toes in a trap. Clubfoot was a bad cattle killer and had been known to kill a yearling steer and drag the carcass a full half mile. Stockmen of the Ojai Valley who had hunted him for years were elated when he was finally killed in 1900 by a forest ranger named Herbert. The animal measured eight feet, nine inches from ~~tip~~ tip to tip, and his weight was estimated at 1,500 pounds.

The small black and brown bears were quite plentiful in early days and a few of them are still found within the forest area. The estimated number in 1930 was fifty; in 1943, rangers estimated a total of 75, but meanwhile some semi-tame bears had been imported from the Yosemite region. These imported bears, having somewhat lost their fear of humans

in a national park environment, were prize pests, breaking into camps and summer homes. On a night in 1940 the lookout man on Big Pine Mt. was somewhat startled to see a big black bear on the catwalk peering into the lookout house and evidently investigating the possibility of getting through the glass windows. Bruin beat a leisurely retreat when the lookout man hammered loudly on a tin dishpan. A forest officer was later obliged to kill this same animal when he terrorized camps in the vicinity, shooting the bear with a pistol from a distance of a few feet as it was trying to climb through the window of a cabin. All of these imported bears were finally killed.

A good "bear story" of one of these animals went the rounds of the local press in early 1938 when Bill Post, a Monterey county rancher, shot the 200-pound camp pest known as the "Big Sur Bear". The animal had broken into a cottage and wantonly wrecked everything in sight. Post happened along while the bear was still enjoying his furniture-wrecking spree and shot him while inside the house. When the rancher betook himself to local Justice of the Peace Ray Baugh and pleaded guilty to a violation of the game laws, the court dismissed the case with the remark: "Game laws don't apply to bears in houses."

Wild hogs are hunted for sport in both divisions of the Forest, since the millions of acorn bearing oaks provide an ideal home for the animal. The species is quite distinct from the domestic stock and marked by the long snout and tusks of the real wild boar of other lands, although they originated both from tame hogs gone wild and from wild boar introduced from foreign sources years ago.

The usual California fur-bearers and animal predators are quite plentiful in Los Padres area. Away back in the Mission days, local

priests frequently made reference to the toll of livestock taken by the wild animals of the mountain area. One priest in making such a record referred to the native cougar as a "leopard". While mountain lion hunting for sport has taken place within the past three or four decades, usually the hunting of this animal is a serious business because of the menace he represents to domestic stock and deer. The Supervisor's annual report for 1930 credits the Forest as harboring 260 of these animals, but the 1943 report claims only 70 mountain lions on the entire Forest.

In 1909, mountain lions took such a heavy toll of livestock on the Monterey Forest that Supervisor Raymond Tyler wrote his superiors asking for authority to employ a special lion hunter. The following year, and only as incidental to their other duties, forest officers on the Monterey and Santa Barbara shot seven mountain lions and also killed 66 coyotes and 100 wild cats and lynx.

Mountain lions have on occasion been killed in the valley sections and at least one in the heart of the city of Santa Barbara itself. One day in May, 1928, while performing his early morning duties, the building custodian left the main doors of the county court house ajar. One of the county officers, later coming on duty, was somewhat taken aback when he met a full grown mountain lion in one of the corridors. In the hue and cry which ensued the animal escaped from the building, but was killed on the courthouse grounds nearby.

Predatory animal control by State and Federal agencies was carried on extensively in pre-war years and the Forest has been made a special center for wild life studies. Private and Government trappers bagged 985 coyotes in 1928 alone. Forest officers, in their estimate of wild life population of the local unit accounted for 4,000 coyotes and 5,400

bobcats in 1943. Gray fox are plentiful, as are skunks and raccoons. The opossum, an introduced species, has increased in the canyon bottoms, to become a regular pest in some localities. Local rangers reported only 120 ^{genuine} wild hogs as denizens of the Forest in 1943. There are, however, a considerable number of bands of wild hogs in various parts of the Forest, the domestic ancestry of which goes back only a decade or two.

As in all national forests of California, deer is the commonest and largest game animal and the harvesting of the annual seasonal crop--by current practice undertaken during the extremely high fire hazard summer months--has become a leading local problem. In an average year, 20,000 hunters fare forth in an endeavor to bag a buck, some ten times the number of deer hunters using the Forest twenty-five years ago.

The deer population of all species was listed in 1923 as 9,000; in 1930 as 9,000 coast mule deer, and 8,500 of the smaller blacktail species. In 1937, their numbers are given as 9,000 blacktail and 20,000 mule deer; in 1943, as 22,000 of the mule deer species and 9,700 blacktail. In some sections deer are so plentiful as to be an actual menace to the orchards and gardens of local farmers. In 1928, the total deer hunters bag on Los Padres Forest was 1,096; in 1937, the hunters bagged 1,657 bucks, and in 1940 the kill was listed at 1,880. On account of extreme fire hazard during the regulation hunting season, special closure restrictions have been imposed in recent years, and the annual deer bag considerably reduced.

Upland game birds, still fairly plentiful, existed in large numbers half a century ago. In 1906, a local ranger reported that the flats and potreros between Little and Big Sespe, north of Fillmore, were literally "overrun with quail" and another forest officer said that they were to

be found in coveys of hundreds in that section. This common game bird is yet quite numerous all over the national forest and extending down into the farm lands. Wild doves are quite common in the region. Wild pigeons are still quite plentiful but exist in the greatest numbers in the large pinon area close to Mt. Pinos. These birds were once so plentiful that literally tons of them used to be shipped to city markets annually by commercial hunters. As late as 1927, at least 500 birds could be seen daily right around Los Prietos Ranger Station.

In the varied area of Los Padres National Forest, many rare species of birds are found, among them being the Calliope humming-bird, the smallest of our national species. At the other extreme, Los Padres is the exclusive home of the California condor, the largest native bird on the North American Continent. These giant vultures, close relatives of the giant condors of the South American Andes, often have a wing spread of more than eight feet. The female bird lays but a single egg during the mating season, and this, it is believed, takes place only every two years. Occasionally the condors are seen soaring far from their usual Los Padres haunts, to which they always return. Of such great interest is the existence of this species from a national standpoint that lookouts all over Southern California and the southern Sierra Nevada are required officially to report their infrequent occurrence. Every possible legal restriction has been thrown about this interesting bird of which it is estimated that between fifty and sixty yet exist.

In 1937, an area of 4,200 acres on the north slopes of Mission Ridge and Big Pine Mt., was set aside as a condor sanctuary. Here the giant vultures nest on inaccessible ledges or just inside small caves in the rocky cliffs. In an endeavor to save this bird from utter

extinction, this area was closed to all forms of public use. Hardly had this sanctuary been established, however, until most of the birds decided to move their habitat some sixty miles further east, establishing themselves in the vicinity of Hopper Mt. and Whiteacre Peak.

The National Audubon Society, the American Museum of Natural History and similar organizations maintain a deep interest in this rare species. Carl Morford, leading California ornithologist, interrupted his detailed study of the life and habits of the condors to enter the armed forces. J. R. Pemberton, leading naturalist of Los Angeles, working with local forest officers, secured several reels of film some years back, closeup views of the birds, their nests and young, taken at some risk to life and limb. Further study is projected when peace comes again.

Back in 1931, a 50,000 acre bird sanotuary was formally dedicated on Mt. Frazier by the American Audubon Society as a harbor for all species of bird life. This included an area of 32,296 acres set aside in 1929, known as the Frazier Mt. State Game Refuge, 4-F.

The Sespe Game Refuge, 3-D, of 111,000 acres, north of the Ojai and Santa Clara Valleys, was created by the State Legislature in 1917, as well as the Manzanita Game Refuge, 3-C, embracing 40,600 acres on the south slopes of the San Rafael Mts. The State Legislature created the Santa Ynez Game Refuge, 3-H, which was set aside in 1929. This last-named refuge includes approximately 15,000 acres, ^{and} ~~has~~ ^{was set aside} shooting within a section in which there was a heavy concentration of public camps and summer homes.

The Gibraltar Closed Area, of 273,000 acres forming the watershed for the city of Santa Barbara's water supply has been closed to summer recreational use, or subject to a restricted permit system since 1934,

in effect creating an additional deer refuge.

Public pressure on the part of dependent water users brought about this action. Rather disgusted over recurring fires in the watershed vital to so much of the surrounding area, the Santa Barbara Morning Press on September 17, 1932, declared: "It looks as if we must forbid hunters or others entering the forests until the rains have made it safe for even fools to be free in a region of such importance to the public."

Oil and Other Minerals

A large section of California's oil producing region, extending from the Santa Maria River to the Santa Clara Valley, is located within and adjacent to Los Padres National Forest. In 1900, Willard M. Slosson, the first forest supervisor, wrote: "Nearly the whole reserve is located in oil mining claims", referring specifically to northern Ventura County. One of the strangest sights in the southern Los Padres today is probably the tall oil derricks stretching from well out into the ocean to the summits of the lower-lying mountains.

While small quantities of oil had been collected since the earliest days of white settlement, the first actual wells in the region were drilled by Lyman Stewart (often called the Grand Old Man of Western Oil) and Wallace Hardison between 1884 and 1887. These men later founded the Union Oil Company and incidentally the present city of Santa Paula. Some of these pioneer wells are still producing.

The Ojai Ranger District of the Forest is plastered with mining claims and there are 108 Interior Department oil land leases in effect on Los Padres Forest at present, mainly in that section. As indicative of the value of the oil resources and of the wartime demand, it may

be mentioned that 53 of these oil land leases were executed in 1944.

Special use permits for oil pipe lines are a feature of the national forest land use, and abandoned oil workings in isolated areas are quite common. Any detailed history of the immense oil industry of Los Padres territory would in itself fill a large volume.

Los Burros Mining District in the Monterey Division came into being in 1876. At that time, besides white miners, there were about 100 Chinese engaged in placer mining. All supplies had to be packed in on burros. Records show only \$2,500.00 in gold dust taken in by Dutton and Timball, local storekeepers at Jolon, in the years 1877-78, indicative perhaps of the low grade ore, which ran about \$12.00 to the ton. A few claims were patented in the region, but active mining died out many years ago.

The Spaniards were said to have taken a fling at gold mining in Los Burros section in the last years of the eighteenth century and some very old workings were found during the boom period of the 1870's. Somewhat better authenticated is the story of the old silver mines on San Carpajo Creek, in the same general area. Indians are known to have brought out silver from this region and the San Antonio Mission friars to have conducted mining operations with Indian labor. One place in the area is still known by the name of Priest Mine. Prospectors of more recent years, although finding the old excavations, were never able to find silver ore in paying quantities.

Somewhat of a similar mystery are the reputed rich silver deposits near Lockwood Valley, about 150 miles further south on the Main Division of the Forest. Some of the early-day Mexican-Californians vouched for their actual existence, among them Rafael Reyes, who located his cattle ranch not far distant in 1851. The Indian tradition of this rich silver

ore was firmly believed in by the early pioneers and Reyes gave as his opinion that the deposits had sunk into the ground during one of the current earthquakes occurring in that section.

There was sufficient silver discovered there in the seventies to warrant somewhat of a rush and the filing of many claims. An enterprising English adventurer actually established a mining town in Lockwood Valley, staking out lots and selling them to innocent purchasers. His methods were very questionable and when his financial deals came to light he was barely able to escape from frontier officers of the law, ready to take him dead or alive.

The gold mining sections of the Frazier Mt. and Upper Piru Creek have a somewhat similar history to that of Los Burros area. The ore was low grade and there was a scarcity of water for placer mining. In the early eighties there was considerable gold workings on Frazier Mt. The Castaic Mine kept going for several decades for about three months in the year during which there was sufficient water to operate a stamp mill handling free milling gold quartz.

Even in the 1930's there were many squatter-miners in the Upper Piru section. While they were technically in trespass, Supervisor S. A. Nash-Boulden dodged eviction action against them as much as possible, arguing that he had a considerable respect for men who would toil long hours to pan out gold sufficient to keep them in beans, flour and coffee, rather than join the hordes crowding the Nation's relief rolls. Labor shortage and high wages later brought these men out of their mountain retreats.

Several small quicksilver mines have been operating spasmodically since long before the creation of the forest reserves. Two of the largest of these operations are located near the Gibraltar Reservoir

and Cachuma Mt., respectively, and have occasionally paid large dividends. Several quicksilver mining claims are located along the north side of the Santa Ynez and in the San Rafael, a few of them with some promise of successful production.

Borax mining has consistently shown more profitable results in the local Forest than that of the production of ferrous minerals. The Frazier Borate Mining Company, although not mining at present, operated near the foot of Mt. Pinos for half a century on a fairly large scale. Mining patents for 2,960 acres of land were issued to this firm on November 12, 1900. Before the coming of automobile transportation the output from these mines was hauled over fifty miles by team and wagon to Bakersfield.

A promising mining venture of early days in that same general section was the Alamo Mountain Mica and Milling Company which mined mica, and refined the ore for market at their plant on Alamo Creek. A mining development of comparatively recent years on the Mt. Pinos and Cuyama Ranger Districts of Los Padres is the production of rotary mud, used in oil drilling operations.

Optimistic companies still hold mining claims and are still selling stock in gold mining ventures on Los Padres Forest. There is perhaps some possibility that mining of precious metals from low grade ores may yet be made profitable by new methods of mining and milling. The future of the oil industry is anybody's guess. Production of oil from shale looms as a coming probability, and the greatest deposits of oil shale in the State are in Kern, Santa Barbara, Ventura and San Luis Obispo Counties, whole mountains of it inside the local National Forest.

Los Padres Forest has had its fair share of mining trespass cases.

On May 8, 1905, Supervisor Slosson wrote the Chief Forester relative to mining interests:

"I think mining companies get more consideration than they are entitled to, when a few men can get the use of names and locate every quarter-section in sight as Placer Mining claims and claim exclusive possession to the detriment of other settlers who live on an adjoining claim with a few head of stock."

That same year W. W. Jenkins, vice-president and manager of one of the mining companies, caused local forest officers plenty of trouble. He adopted a decidedly belligerent attitude towards Ranger Stephen H. Douglas when the ranger began building a ranger station on lands legally reconveyed to the United States in the eastern part of the reserve, threatening the forest officer with bodily harm. He told the Supervisor that if he did not make a favorable report on a claim he wished to secure, he would have the Supervisor removed from office. The Supervisor told him to "go to it", as he would report the exact circumstances of the case.

Jenkins not only spread derogatory reports regarding Ranger Douglas among the settlers, but wrote to Washington accusing him of neglect of duty. Supervisor Slosson, in defending his District Ranger, wrote his superiors: "I find that Ranger Douglas is well liked and only makes trouble for the wrongdoers." Jenkins installed armed guards on the disputed lands, his attorney advising him to defend Government aggression "by force of arms". The case was not settled until 1913 when Jenkins and his associates were granted such part of the land as qualified under the land laws, and the Government retained the rest.

In 1910, the Esmeralda Mining Company had scores of mining claims located by its employees in the San Benito area of the old Monterey Forest and were conducting rather extensive quicksilver mining operations. Supervisor Raymond Taylor and assistant Ranger Carl L. Abbot locked horns

with this outfit which was conducting a typical "wild and wooly West" town on Government land. The center of the trouble was a saloon of dubious reputation, the scene of drunken brawls and occasional shooting scrapes. The matter was finally settled in 1912 by the issuance of a special use permit covering a store for company employees, in place of the former grog shop.

In 1910, George J. Henley located 153 acres of land on the Sespe River just north of Fillmore, built a road to the land and installed a locked gate, known then as now, as Devil's Gate. Henley charged fishermen a fat fee for the purpose of camping and fishing but did very little mining work. A group of his neighbors filed a written protest. He fought the Government bitterly for years, frankly admitting that he was running a mountain resort but also claiming that he was getting ready to carry on the mining of building stone. When forest officers in 1926 finally succeeded in having the claim cancelled and the area thrown open to public use, it was found that the stone quarrying carried on through the years was a mere gesture towards compliance with the mineral laws.

James and Charles Heathe were not mining for oil, stone or precious metals when Supervisor Slosson brought a trespass case against them in 1907. By digging, and by exploring caves in the vicinity of Salisbury Potrero, they had unearthed a wealth of Indian relics consisting of baskets, water jugs and various stone utensils and weapons, which they offered for sale at a stiff price to the University of California. Their weeks of "mining" efforts netted them exactly nothing when the Government forced them to turn over the precious relics to the Smithsonian Institute at Washington, D. C.

- CHAPTER VI -

ADMINISTRATION AND PERSONNEL

Land Office Administration

The General Land Office of the Department of the Interior, engaged largely during its period of existence in disposing of Government lands, was ill equipped for the job of administering the new reserves, thrown into its lap in the 1890's. Generally speaking, its personnel were neither foresters nor stockmen, and the first superintendents and forest supervisors were political appointees. Nevertheless, these public servants conscientiously did their level best to look upon public land administration from the standpoint of use of natural resources thereon, rather than as a beneficent organization giving away or selling land to one and all.

The old correspondence in Los Padres files indicates a groping for ways and means to handle this new and untried form of land use. B. F. Allen was the first forest superintendent in charge of all forest reserves in California and Arizona and from all indications a live wire executive who supervised a small field force. It was not till 1898 that Forest Supervisors were regularly installed in charge of reserves and who in turn hired forest rangers to work under them.

In 1898, mixed with general instructions from the Commissioner of the General Land Office are numerous requests for suggestions for handling local areas and problems. The Commissioner that year bore down on the necessity of removing "all sheepmen, timber depredators, or intruders" on reserve lands "for unlawful purposes", but also warned local officers

that "care should be taken in every way to distinguish between bona-fide settlers or claimants, and parties who are squatters on public lands within the reserves without right of color or title."

The salary of the oldtime Forest Supervisors was \$1,200 per annum, with an occasional allowance of \$1.00 per day for travel expenses when in the field. The rangers were paid \$60 to \$75 per month. Both Supervisors and rangers were required to furnish their own saddle and pack stock. Rangers could be hired and fired by the Supervisors almost at will, but selection of ranger personnel of the local reserves seems to have been fairly sound. Generally the men who were let out were those who could not stand the hardships incidental to a ranger's life in the mountains.

Regardless of any political considerations, Bingham Hermann, Commissioner of the General Land Office, seemed to be determined to secure the best possible type of men as local executives of the new reserves. On November 7, 1898, he wrote Superintendent B. F. Allen:

"The Supervisors should be men of such character and activity as to inspire in the rangers a desire to put forth their best individual efforts... If there are any (supervisors) who fall below a proper standard of efficiency it is my purpose to recommend their withdrawal from the service and the substitution of better men in their places."

The same Commissioner stressed the necessity for quick action in fire control and law enforcement when he wrote on September 19, 1898:

"A forest officer upon receiving information that a fire is in progress which needs his attention should report promptly to the locality and use all reasonable means to extinguish the same... You will direct all forest officers under your charge to endeavor to enlist public sentiment in favor of the Government's efforts to protect the public forest from fire, and to secure their cordial cooperation in bringing offenders to justice."

That progress was being made is indicated by a report of Supervisor Slosson to Superintendent Allen dated September 7, 1901, which read in

part as follows:

"Being acquainted with a great many settlers throughout the reserve I made it a point to call on them and inquire of them about the rangers and whether they thought the reservation was beneficial and they all seemed interested in the work and believed the reserve a good thing and in nearly every case spoke well of the rangers in charge and as seeing them quite often when patrolling. Every day I heard remarks as follows from settlers from within and without the reserves: 'We can't look out every day and see from one to half a dozen fires as we used to before the reserve was set aside so you fellows are of some benefit.'"

The Pine Mt. and Zaca Lake Reserve was divided into two divisions at approximately the Santa Barbara-Ventura County line, with a supervisor in charge of each. With the Santa Ynez Reserve added, the supervisor of the western division had approximately 800,000 acres and eight rangers under his charge; the eastern division supervisor was responsible for about one million acres and had twelve rangers. Most members of the ranger force were employed on a seasonal basis in much the same manner as the forest guards of the present time. The local supervisors in 1900 strongly urged that the rangers be kept on the payroll during the winter months and employed on badly needed trail construction work.

Although in the early days there were no formal headquarters offices, that the supervisors had considerable paper work to do borne out by the monthly work report submitted by Supervisor Willard M. Slosson for May, 1902, as follows:

Letters written	46
Fire reports submitted	2
Monthly reports	1
Special reports	4
Grazing reports	2
No. of rangers' reports filed	6
Reports on homesteads investigated	3
Miles travelled	333

The rangers had little field equipment. Supervisor Slosson was authorized by the Commissioner on June 15, 1899, to purchase for each

ranger "not already so provided, one axe and handle, one pick and handle, and one shovel, for use in the discharge of his official duties." The annual inventory of Government property in 1902 for the use of the supervisor and twelve rangers on the entire eastern division showed the following:

19 axes	7 picks	15 shovels
3 buckets	5 rakes	3 brushhooks
16 mattocks	1 saw	1 pr. brushshears
4 hammers	1 compass	1 compass tripod
3 log rules	1 surveyor's chain	1 set surveyor's pins
5 canteens	3 crowbars	1 timber scribe
1 grindstone	1 packsaddle	

At the beginning of 1905, when the forest reserves with Gifford Pinchot as Chief United States Forester, were transferred from the Interior Department to the Department of Agriculture, the San Luis Obispo and Monterey Reserves had not yet been created, and this new form of Government land use administration was yet in an experimental stage, and the general public had a very cloudy understanding of its purpose. Most people thought of the reserves as areas locked up against public use. The Santa Barbara Independent of October 6, 1899, speaking of a county road badly needed into Cuyama Valley, declared, "The Government reservation forever places a barrier to the proposed mountain road." The same newspaper, the editorial attitude of which seems to have been quite antagonistic toward forest reserves, nevertheless admitted on August 17, 1901, that, "It is an encouraging fact that no destructive fires have occurred since the reserves in this county were formed."

Supervisors in Charge and Terms of Service

Willard M. Slosson, 52, was appointed supervisor in charge of the eastern division of the Pine Mt. and Zaca Lake Forest Reserve on July 1,

1898, coming to California from the lumbering town of Reed City, Michigan. His headquarters were at the town of Nordhoff (Ojai).

On the same date, B. F. Crawshaw assumed duty as supervisor in charge of the western division of the reserve with headquarters at Santa Barbara. Crawshaw was a heavy-set, one-armed man, but in spite of his crippled condition got over the rugged territory of the Santa Ynez and San Rafael mountains with surprising agility. He used a team and buckboard wherever such a vehicle could go and took exception to the G. L. O. Commissioner's written instructions of July 20, 1901 to Superintendent B. F. Allen "to dispense with the services of Forest Supervisors if they can't or won't travel by horseback." Although those who knew him aver that Crawshaw did not dodge saddle and pack horse travel when necessary, he is revealed defending wheeled vehicle travel in a letter to his superior officer in October, 1902, arguing, "I can make better time in a wheeled conveyance than with saddle horse which means pack and two horses and a walking proposition."

Old correspondence indicates that there was considerable jealousy between Crawshaw at Santa Barbara and Slosson at Nordhoff(Ojai). Crawshaw was evidently somewhat of a martinet--Slosson quite the reverse. In the backing and filling which was somewhat inevitable in selecting personnel for new and untried public land administration, Supervisor Slosson was laid off October 15, 1899, but was restored to the rolls as a ranger a few weeks later. These moves placed Crawshaw in charge of the entire area of the local reserve.

Willard Slosson was well liked by the local permittees and users, which was perhaps one of the reasons why he was shortly afterwards re-

instated in his old position as forest supervisor of the eastern division. Crawshaw, evidently not so popular with the local people, was the subject of personal attack by the local newspapers. The Santa Barbara Daily Independent, referring to him as a "carpet-bagger", on December 12, 1899, editorially declared, "McKinley, having his immediate political friends to reward, imported Mr. Crawshaw--'the empty-sleeve here'."

Personnel matters reached a crisis on these combined reserves in late 1904, and Forest Inspector Louis A. Barrett, who died at his home at Belmont, California, while these lines were being written, was sent to take the place of Crawshaw on January 24, 1905, remaining in the capacity of acting supervisor till April 20, 1905. Barrett made a pretty thorough job of administering the western division and in personnel investigations for his official superiors. During his 87-day tour of duty, he issued hundreds of grazing permits and interviewed hundreds of permittees and users. He put several ranger trail crews to work, rode 600 miles horseback, and wrote 335 official letters.

Lou Barrett, afterwards supervisor of the Plumas National Forest and then assistant regional forester of the California Region for over 25 years, later amusingly recalled his experiences on the Santa Barbara National Forest. His office was a bedroom in a rooming house for which he personally paid \$5.00 per week. Copies of his complete file of correspondence all in clearcut longhand, are preserved in the present Los Padres files. He had no letter press but used letter press methods, placing the correspondence in the record book beneath his trunk which he used as a chair to provide the necessary weight.

B. F. Crawshaw was removed from the supervisorship of the western division and when L. A. Barrett left on April 20, 1905, Willard M. Slosson became supervisor of both divisions of the Pine Mt. and Zaca Lake and the Santa Ynez Reserves with headquarters at Santa Barbara. The

San Luis Obispo Forest Reserve was added the following year. Slosson continued as forest supervisor of the Santa Barbara National Forest till 1914, being universally known in later years as "Colonel" Slosson, having been dubbed with this title by a local newspaper reporter who developed a great admiration for the elderly forest executive. Slosson was later mayor of Santa Barbara for two years and died in Los Angeles May 21, 1923. His daughter Edna E. Slosson, served as clerk in the local Forest headquarters office for years. His son became a prominent Los Angeles attorney.

Christopher E. Rachford was transferred from the supervisorship of the Modoc National Forest to that of the Santa Barbara on May 1, 1914, although the elderly retiring supervisor remained officially on the rolls until June 30. Rachford remained in charge only until April 30, 1915, when he was transferred to San Francisco as assistant district forester in charge of the Division of Grazing. "Chris", as he was familiarly called by his friends and associates, was promoted November 1, 1920, to the position of assistant chief forester at Washington, a position he filled until his retirement in 1942.

Jesse R. Hall took over the reins as forest supervisor of the Santa Barbara Forest on May 1, 1915, and served in the position till January 31, 1920. It was during Hall's administration that the Monterey Forest was added to the Santa Barbara, making the supervisor's position one of still greater responsibility. Almost twenty years later, Hall wrote, "I found a very friendly population throughout the Santa Barbara National Forest--- Talk about the roads there today, - then there were none, and very few trails. What little money to build with that was allotted was going mostly to northern California." Hall was transferred to the supervisor-

ship of the Shasta National Forest and later to the same position on the Stanislaus, which position he still holds.

Thomas W. Sloan, deputy supervisor of the Angeles National Forest, succeeded Hall as forest supervisor of the Santa Barbara on February 1, 1920, and occupied the position until March 31, 1922. Tom Sloan suffered greatly from asthma, but always a hard worker, bravely pounded the trails of the rough region. Undoubtedly, his proclivity for hard work hastened his death which took place in Pasadena, California, on March 15, 1924, at the age of 52. Sloan was of the old ranger type, happiest when moving through the hills on the back of a horse.

The Forest Service has produced few men who could take heavier physical punishment than big and brawny Chester A. Jordan, ~~who was~~ supervisor in charge of the Santa Barbara Forest from May 1, 1922, to November 30, 1925. His period of administration was marked with some exceptionally bad fires. The late county supervisor, Thomas W. Dinsmore, a former forest ranger, often disagreed officially with Forest Service policies. However, on March 19, 1924, Dinsmore wrote District Forester Paul G. Redington in connection with a serious fire which had threatened valuable Santa Barbara interests, "Mr. Jordan showed himself to be a real man at a critical time....Mr. Jordan is of the type that Colonel Slosson was. In his intelligent way he has won the confidence of the public." Chester Jordan's death in 1936, while serving as a Regional Officer, was attributed by many of his associates to overwork on fires.

William V. Mendenhall, since become one of the best known men in forestry circles in Southern California, succeeded Jordan as supervisor on December 1, 1925, having previously served on the Forest as deputy supervisor for three years. Mendenhall started his Forest Service career

as a packer in 1911, graduating through the various stages to an executive position. He left the Santa Barbara to become the supervisor of the Angeles National Forest on April 1, 1929, which position he holds at present.

Stephen A. Nash-Boulden, the present supervisor of Los Padres National Forest succeeded Mendenhall on April 1, 1929. Like Mendenhall, Nash-Boulden came up from the ranks the hard way, having been district ranger on the Cleveland National Forest during the second decade of the present century. Before coming to Santa Barbara he had been forest supervisor in charge of both the Cleveland and San Bernardino National Forest, having served his entire apprenticeship on the Southern California watershed forests. An immense amount of activity and development has taken place on Los Padres since the present supervisor took charge 16 years ago. Nash-Boulden's term of service has included the depression years when hundreds of relief workers were employed on forest projects; the contemporary Civilian Conservation Corps program, and all the cooperative activities engendered by World War II. During this period also, Los Padres Forest was the scene of one of the worst forest fires in California history. Nash-Boulden has conscientiously worked to retain the spirit of horse-riding days and the atmosphere of the Spanish, Mission and Mexican eras which so permeate the area under his supervision.

N. O. Torstensen was appointed supervisor of the Monterey National Forest shortly after its creation and except for a short period in 1908 when Francis O. Porcher was acting supervisor, served till June 30, 1909. The scant records left by Torstensen and Porcher have been accidentally destroyed. Raymond Tyler relieved Torstensen on July 1, 1909 and served as supervisor until September 16, 1911, Tyler started as a ranger on

the Sierra Forest in 1904, had served with the old State Board of Forestry, on the Tahoe and Inyo Forests. His health broke down in 1911 and he spent most of the next twelve years in outdoor camps in the high Sierras battling his disease. He died in Pasadena April 21, 1923, at the age of 50.

The Monterey Forest was rather a strange administrative setup. In 1908 and 1909 the force consisted of a supervisor, one deputy ranger, five assistant rangers, one forest guard and a part-time clerk. The Forest headquarters was first maintained at Salinas; later at Chews Ridge where the administrative headquarters was also a fire lookout; still later it was established at Arbolado (Big Sur), and finally moved to King City.

The forest supervisor also functioned as a ranger, lookoutman, and roving patrolman. During Tyler's administration, a good part of the clerical work was performed by Mrs. Tyler. Tyler's own diaries were not only a record of his personal movements, but the main record of all activities on the Monterey National Forest as well. This detailed diary records circumstances of wild cattle and wild hogs in trespass; improvement plans; lands claims cases; personnel assignments; weather conditions, and fire-fighting actions. Tyler used a "Sun" typewriter for his correspondence - when the machine worked.

Percy L. Day relieved Raymond Tyler as forest supervisor in September, 1911, but served in this capacity only till the end of the year. Norman H. Sloane was appointed forest supervisor of the Monterey unit on January 1, 1911, and served till March 1, 1916, when he was transferred to the supervisor ship of the Cleveland National Forest. Norman Sloane, now deceased, later left the Forest Service ranks and for many years was the manager of the California State Chamber of Commerce.

Hamilton G. Merrill succeeded Sloan as supervisor of the Monterey, serving in the position till February 28, 1918, when he resigned to become an almond farmer in the Paso Robles section. No replacement supervisor was appointed to succeed Merrill, the unit being placed under the jurisdiction of the Santa Barbara National Forest, to which it was formally added the following year. Harry F. Hunt was in direct charge of the unit as its first district ranger.

Old Time Rangers

During the period of General Land Office administration and the first two or three years following the transfer of the Forest Service to the Department of Agriculture, there was a good deal of shifting and sorting of ranger personnel. The first detailed, written report on the personnel of the old Santa Barbara National Forest was made by Supervisor Slosson in 1907. Besides the general overhead consisting of the supervisor, deputy supervisor and clerk, the field force of the Forest was composed of the following men:

<u>Rangers</u>	<u>Deputy Rangers</u>	<u>Assistant Rangers</u>
Stephen H. Douglas	Robert H. Miller	Robert W. Clark
Wm. W. Gray	Gerard V. Reyes	Alfredo G. de la Riva
Jacinto D. Reyes	Edgar B. Davison	Z. T. Davison
George A. Bald	R. G. H. Forsyth	Thos. W. Dinsmore
John B. Libeu	A. D. Martin	Otto W. Hoeger
Carl Stoddard	Henry W. Muzzall	Joseph J. Libeu
		John Riis
		H. F. Van Winkle
		Walter F. Emerick
		Dwight Murphy
		William A. Smith
		Harry F. Hunt
		Eugene L. Slosson

Only two of these men were under 25 years of age; twelve were between 26 and 35; three between 36 and 40. The balance were men over forty

years of age, one of them being 55, and two past sixty. Most of the rangers had been stockmen and small farmers. William A. Smith, 63, was a teamster; Otto H. Hoeger had been a baker, and Harry F. Hunt, a minister and newspaper reporter. There was no maximum age limit on the forest rangers of those days. William A. Smith served on the Santa Barbara National Forest until 1914. He died at Santa Maria two years later. Harry F. Hunt served on the Santa Barbara until 1924 when he was transferred to the Angeles Forest. Once while in charge of the Monterey District, he was hemmed in by a fast moving fire and barely escaped with his life. Highly educated and an ordained minister, Hunt, while serving on the San Bernardino Forest, performed the marriage ceremony for one of his guards who was unable to leave his post of duty because of imminent fires. He was instantly killed in an auto accident on September 15, 1930.

Henry W. Muzzall, a former photographer, was 65 years of age and a veteran of the Civil War. In spite of his age, he was rated as one of the best men on the field force and was strongly recommended for the promotion he never received by Supervisor Slosson and Acting Supervisor L. A. Barrett. Thomas W. Dinsmore, a former grocery clerk, was mentioned as a good ranger. Leaving the Service, he afterwards became prominent in county politics and served for years as a Santa Barbara County supervisor.

Dwight Murphy, one of the two youngest men on the ranger force, was highly recommended. He later became nationally famous as a millionaire breeder of Palomino horses. George Peavey, who worked as assistant ranger with Edgar B. Davison in the Davy Brown section in the first years of the century, was in later years president of Oregon State College. John Riis became a well-known forest officer and a writer of merit. Joseph J. Libeu,

after an interesting career as forest ranger, died in San Francisco on June 18, 1927, from blood poisoning resulting from an old injury suffered fifteen years earlier.

Edward S. Mainwaring, who left the Santa Barbara Forest in 1906 became a well-known forest officer of the California Region. Born in England on July 21, 1858, he was appointed forest ranger on July 18, 1899, and became the forest supervisor of the San Luis Obispo Forest Reserve when that unit was withdrawn. He was also supervisor of the Trinity National Forest. Transferred to the Sierra Forest in 1914, he served there till 1927 when he was retired under the age ruling effective that year.

On one occasion, Rangers Murphy, Muzzall, Dinsmore and Riis, with Assistant Supervisor Merrill, working as a surveying party, almost lost their lives in fording the icy waters of the Santa Ynez River during its winter flood. All finally made the crossing but their mule-drawn wagon was swept away, their camp outfit and supplies lost, and two of the eight mules drowned.

Ranger Bob Clark was known among members of the force as the "laughing Irishman." He was afterwards sheriff of Ventura County, his later appointment as United States Marshal at Los Angeles continuing up to the present time. His habit of coolly smiling or laughing in tense situations sometimes staved off a shooting affray.

One of the small local stockmen refused to take out a grazing permit and threatened to shoot down the first forest ranger who disturbed his trespassing stock. Ranger Clark was sent to interview him and to take whatever action was necessary to remove his hogs from reserve lands. En route, Clark met the trespasser driving a wagon. As both stopped to palaver, from his vantage point on the high spring seat, the trespasser

laid a double-barrelled shotgun across his lap so that the muzzles pointed at the breast of the ranger alongside. Ignoring the menacing gun, the ranger looked smilingly into the man's eyes, coolly explained the regulations he was there to enforce, then rode on and drove the offending hogs off the forest preserve. The stockman did no shooting then, nor later.

On another occasion an irate stockman called on Clark and demanded to see his Use Book of forest regulations. Opening the book, the cowman flourishingly drew his pistol and with the muzzle of the gun pointed out a paragraph which he contended verified his argument that the local forest officers were wrong and he was right in a current range dispute. Ranger Clark nodded smilingly, slowly drew his own pistol and pointed out another paragraph on the same page, one which refuted the stockman's contention. For a moment or two both pistol muzzles traversed the page and bystanders stood braced, ready for an explosion. None came. The cowman looked up into the grinning face of the ranger, relaxed from his belligerent attitude, and both men laughed loudly as they holstered their guns.

It was on behalf of an old squatter by the name of Kiefer on the Ojai district that Alfredo G. de la Riva, Mexican-American ranger, sacrificed his life. Riva, himself safe on a higher point from a fire burning in that section, noticed flames around the old man's place in the canyon below, and that the latter was trapped and bewildered. Riva plunged into the burning canyon and half carried, half dragged the elderly squatter through the smoke up the steep slope, with the fire following on their heels. Near the summit, the ranger was forced to use both hands to pull himself up with the old man hanging on to his waist belt. Just as

they reached the top, a wave of fire swept over them. Keefer, releasing his hold, rolled back down the steep slope to his death. Riva staggered out of the flames badly burned, and died a short time afterwards.

Jacinto D. Reyes has often been called the dean of California forest rangers. He entered the Forest Service in 1901 and served on the Cuyama district for 31 years and two months before his retirement. A man of powerful physique, Reyes never knew when to quit, and was often known to start out on a mule-back trip at six in the evening, riding rough trails until he made camp at midnight, resuming his trip when daylight came.

The Cuyama district was accessible only by trail from the south, up to 1929. To the north a rough winding road provided access by wheeled vehicle to Maricopa, 37 miles distant from Reyes' headquarters. As late as 1930, it took ten days for mail to reach Reyes from the supervisor's office.

Reyes' services were frequently requisitioned by county authorities to pack bodies out from areas accessible only by trail. On one occasion word was sent him to find and bring out the body of an eccentric prospector who had written a note that he was leaving his claim to commit suicide. County officers and a local posse were unable to find the remains. Reyes found the scene of the tragedy, alright, but there was no corpus delicti. The old prospector had elected to end his earthly existence by blowing himself to bits with several sticks of dynamite, and had done a thorough job of the matter.

Among Ranger Reyes' most cherished memories is the occasions when he acted as a member of the guard of honor for two different Presidents. William McKinley visited Ventura in 1901 with Secretary Hitchcock of the

Department of the Interior and Secretary Wilson of the Department of Agriculture. Local rangers escorted the chief executive's carriage. In 1905, when the city of Santa Barbara played host to President Theodore Roosevelt, the forest rangers at the President's request formed the guard of honor. The rangers were resplendent in a uniform of double-breasted blue flannel shirts, corduroy trousers and wide-brimmed Stetson hats, all mounted on black horses. On this occasion, Ranger Reyes had the honor of riding at the right hand of the President's carriage. Pictures of this group of early-day rangers show most of them wearing the handlebar mustaches then in fashion.

Used to the saddle from infancy, Reyes was an outstanding rider. As a young man he once rode fifty miles, half the distance over mountain trails, in six hours, on a life and death mission for medical supplies. This ride involved crossing the Matilija River at flood stage six different times.

Among other rangers of General Land Office days are found the names of Joseph P. Hildreth, Hermogenes Ortega, Jacob C. Shoup, George A. Ware and J. H. Hector. Ranger Jacobs died early in 1904. Supervisor Slosson wrote of Ranger Hildreth on August 12, 1902, - "There is no better all-around man in the Ranger Service...He is an ideal ranger."

During the first decade of the century there were many applicants for the local forest ranger positions. Of those who qualified, some served a year or two and quit. There were many hardships connected with the work and the wages were low. It is somewhat amusing to note, however, that a survey conducted in 1909 showed that it cost the average ranger only \$150 a year for lodging and subsistence and an equal amount annual-

ly for horse feed. The same records disclose that the average personal investment per ranger in horses and riding and packing equipment was \$350, the equivalent of almost half a year's salary for some of them.

As many of the old-time rangers were replaced by seasonal guards, the latter class of employees gradually increased in numbers, from approximately 30 in 1900, to 50 in 1925, and to 84 in 1938, some of these serving for only a few weeks during the heat of the fire season. Of these 84 in 1938, 34 were brand new men. That year there were only eight forest guards who were on the rolls in 1932, and from 1932 to 1938, the average annual forest guard turnover was 51 per cent.

Ranger Districts

In the early days of the Forest's administration, ranger districts usually embraced the territory included in one of the officer's patrol routes. Sometimes two or three of these patrol routes were combined to form a general area under the supervision of one ranger. As nearly as the term "ranger district" is used at the present time there were approximately 25 districts on both the Monterey and Santa Barbara Forests in 1908. The average size of ranger districts on the Santa Barbara is given in a report of December 2, 1907, as 79,284 acres. The great distances and isolation of the country were mainly responsible for the large number of ranger district units. An analysis of ranger time made in 1910 and 1911 showed that approximately twenty per cent of their long working hours were expended in securing mail and supplies.

In 1913-14, when the Forest Service cut down the number of ranger districts and formed larger administrative units, there were still eleven ranger districts for the ^{4.2}~~2.2~~ million acres of the two separate national

forest units. In 1923 there were ten full-time rangers on the Santa Barbara National Forest. It was not until after the transfer in 1925 of over one-quarter million acres to the Angeles National Forest that zoning of ranger districts took place to form approximately the same seven administrative ranger units of recent years. (See Appendix E)

- CHAPTER VII -

PROGRESS IN MANAGEMENT

Horny-handed Rangers and Sure-footed Mules

In a public talk made by Supervisor Slosson in 1904, he said: "The main feature of our plan of protection is to have rangers having judgment, muscle and nerve." The rangers of Los Padres National Forest have been somewhat noted through the years for two things,--their ability to perform hard manual labor, and ownership of dependable horseflesh.

One ranger of early days, located in an isolated section of the east side, was an outstandingly hard worker and a good horseman. He lasted only one season, however, because his hill-billy way of existence involved a family of 13 assorted dogs and his superiors learned that the woman who kept house for him and his canines was not his mother, as he had claimed when reporting for duty.

Sure-footed pack and riding mules were important members of the old Forest organization, as they still are at the present time, when the Government-owned animals of this class in the local string number almost one hundred.

A big mule packed and ridden for over 25 years by Ranger J. D. Reyes became a famous local character. About the only time Reyes ever laid off work on account of sickness or injury was in 1908 when this animal bucked him off on a rocky trail, when he was fagged out from loss of sleep during a lengthy spell of fire-fighting. On another occasion this mule objected to being loaded with a large, unwieldy water tank, reached back and bit his owner on the leg. Reyes was lame for months on account of this injury.

Normally, however, the mule worked faithfully and once for over twenty hours in the dead of winter carried a 350-pound load of medicine and supplies for flu-ridden residents of the Cuyama area. The animal would work for no other than its ranger master.

During the past decade and a half Supervisor Nash-Boulden has built up the present "mule force" to a high degree of efficiency. A horse trainer in his youthful days, he claims that mules can be trained to pack almost anything moveable by wheeled vehicle, and within the weight of horse capacity. Faced with the necessity of building fire lookout towers, watertanks and houses on high peaks which could never be made accessible by road, he had every last item of construction for these projects transported by mule back. To transport long lumber and heavy iron girders up the steep, winding trails, Nash-Boulden and his packers developed a special type of packsaddle equipped with a swivel attachment. By means of this, long pieces were loaded on two mules and on hairpin turns swung out over the precipices while the mules trod the trails in safety.

When Forest Service invented a gasoline propelled flame-thrower for use in backfiring no one believed that it could be worked other than from the trailer on which it was built. Firm in his belief in the "horse sense" of mules, the local forest executive adapted this piece of equipment for mule pack, and trained special animals to carry it. Spouting spectacular flames, the machine made a noise like an old-fashioned Fourth of July, but the trained mules stood docilely by, thus allowing the much needed equipment to be worked in rugged areas where no roads existed.

Packing sick or injured persons out of the roadless back country had always been somewhat of a problem, so during World War II, Nash-Boulden

invented a special type pack saddle attachment to a stokesbasket on which the casualty could be safely transported on the back of a single mule, as against the traditional method of a litter swung between two pack animals. This stretcher unit is now being patented to the United States Government.

Roads and Trails

One of the main activities of the early-day rangers was construction and maintenance of trails. An old diary of Ranger William B. Whitaker covering the period from July 1, 1900, to May 31, 1901, shows the greater part of his time devoted to such work.

In a report to Washington dated December 14, 1904, Forest Supervisor Slosson stated that there was a total of 147 miles of existing trails on the Zaca Lake and Pine Mt., and Santa Ynez Reserves when these were originally withdrawn, and that 232 miles of additional trails and one trail bridge had been constructed since up to that date. Seventy-five miles of this new construction was represented by a trail along the summit of the Santa Ynez Range, south from Gaviota Pass. Reports in the spring of 1905 indicate that most of the trail system of the two reserves was washed away by heavy rains the preceding winter. Trail construction work was heavy that spring and Acting Supervisor L. A. Barrett, in his report to the Forester on March 31, 1905, said that he had made it a point to spend at least half his time with the rangers in their trail camps, and to personally lay out and supervise the construction of all new trails.

A lot of the early-day trail construction was somewhat sketchy and the total distance of standard Government trails on the Santa Barbara and

Monterey National Forests in 1911 was reported as 134 miles. Five years later this figure had reached 411 miles, and by 1920, the total was 671 miles, plus 471 miles inside the Forest boundaries built by private parties. In 1924, the mileage of standard trails had reached 1,367 miles. On June 31, 1944, the total mileage of useable trails, built with Government and cooperative funds, was 2,204.

Sometimes over-zealous rangers trying to make their respective territory more accessible made errors on location, and the following letter was written to the forest supervisor in 1927 by an irate homesteader on discovering a new trail across a corner of his land:

"Dear Sir: You have a Rainger Here on the Sespe Creek by the Name of William Bower who built a trail over my ranch without my consent - The damage is \$200.00 Two Hundred NO LESS - NO LESS Please make check for the amount."

Los Padres has relatively a much smaller mileage of roads than the average national forest area in California. As late as 1914, the Forest total was only ten miles of road built with Government or cooperative funds, and part of this mileage was abandoned a year or two later. No material road construction took place for years after that, the total at the end of 1921 being 25 miles. This had grown to 45 in 1925, and to 50 in 1927. Rangers from other units during the winter months were detailed to help local rangers in Southern California on road and trail construction, but in Los Padres area their work was mainly confined to trails.

As indicative of the transportation development which has taken place in Los Padres region generally, is the written record left by two of the Monterey supervisors, both deceased. Supervisor Tyler, having business in the towns of Carmel and Monterey, early one Sunday started out by

automobile from Salinas Valley for the points named. The machine stalled time and again, and after a hard day trying to push the car up the hills it was necessary to lay over and finish the trip by horseback. In March, 1916, Supervisor Sloan wrote a detailed account to a King City newspaper of his trip by auto from that place to Escondido, a short day's run at present. It took Sloan six long days - and nights - to make the trip in his family car. Pulled out of the mud time and again by farmers' teams, it was sometimes necessary to camp overnight near the last mudhole in which the machine was stalled.

Heavy road-building equipment began to become available to the local unit in 1928 and with Federal funds backed by cooperative county money, a considerable program of road and truck trail construction was embarked upon, 575 miles of these secondary roads being built between 1928 and 1935. During the period 1936 to 1940, this road construction program slackened, and only 160 miles of new road were built during this period. Comparatively little road construction has been carried on since except for projects used in connection with training of the armed forces and those providing access to quicksilver deposits needed during wartime.

The higher standard roads and forest highways were mainly cooperative projects in which a large portion of the costs were borne by the counties. The most ambitious of these were the El Camino Cielo, the Coast Ridge Road, the Nacimiento Road, and Mountain Drive. El Camino Cielo was laid out for 96 miles along the summit of the Santa Ynez Range, following the trail route of early days. The final completed project involves a connection with Highway 101 above Gaviota Pass and with Highway 399 adjacent to Ojai Valley. The Coast Ridge Road, a somewhat similar scenic drive

along the summit of the Coast Range in Monterey County, is 26 miles in length. The Nacimiento Road is approximately 17 miles in length. Mountain Drive, 11 miles long, is purely a Santa Barbara sponsored project, located just above the county metropolis.

Cooperative construction on the El Camino Cielo was abandoned in 1940 by which time 55 miles had been completed, Santa Barbara County having furnished funds for the oiling of 15 miles of the project. The total cost up to that time was \$472,782.66. Mountain Drive, connecting the El Camino Cielo project with the city of Santa Barbara, was built by the county in 1935-36 at a cost of \$222,500. Due to the heavy use of relief roll labor used in its construction, it is also locally known as "Depression Drive". Cooperatively with the county, the Forest Service later extended the Mountain Drive project on a less elaborate scale 14 miles further to the Gibraltar Dam and the Santa Ynez River, at a cost of \$91,410.

The Coast Ridge Forest Highway, of which 20 of 26 miles have been completed as a dirt road, was built entirely by the Forest Service. Regular Forest Service crews, CCC enrollees and State and county work relief crews, all have had a hand in construction of the Nacimiento Road, started in 1931 and completed in 1937. Because of the large amount of donated labor the cost of this last-named project shows only as \$74,753 on Los Padres records.

The biggest truck trail projects were the Indians Road extending almost 20 miles south from Arroyo Seco to a connection at Indians Guard Station with a road entering from Salinas Valley, and the Buckhorn Road, winding for approximately 50 miles through the heart of the southern

section of the Forest and providing a connecting link between the Coast area and Cuyama Valley.

The Indians Road was completed in 1940 at a cost, including spurs, of \$202,360. The Buckhorn Road, used only for forest administration and fire protection and not open to public travel, was gradually pushed through between 1928 and 1939, providing access by motor vehicle to a large area of back country. The total cost of this 50 miles of construction was \$175,744.

As illustrating the difficulties of local truck trail construction, the following three cases are cited: Between 1935 and 1940, 14.7 miles of road were built up the Sespe River, the cost being \$56,000. During the years 1935 to 1937, a road was pushed up Santa Paula Canyon to serve as bad fire area, the 5.6 miles completed on the project costing \$32,116. Four and one-half miles of truck trail up Sisar Canyon on the Ojai district, built between 1933 and 1937, cost \$45,965. All three of these projects were constructed with CCC labor.

On June 30, 1944, inventory of the road system of Los Padres Forest showed a total of 1,390.7 miles, with a book value of \$3,978,737.16. However, this included 603.7 miles of roads acquired by the Forest Service without cost - roads built by mining interests and abandoned, and short roads built by stockmen and others - with an inventory value of \$623,142. Many of these old roads are maintained by the Forest Service to provide wheeled vehicle access to fires in their vicinity. As indicative of the close relationship of the local national forest with outside lands, 320 miles of these acquired roads are outside the national forest boundary, and 33 of these old stub road projects, involving 104 miles, have no

extension inside the national forest at all.

Major highway project construction and betterment by State and county agencies of the routes now traversing or paralleling Los Padres Forest continued at a fast pace through the 1930's. On October 22, 1933, U. S. Highway 399, one of the few mountain highways in the State on which tunnel construction was necessary, was opened with appropriate ceremonies. This project, fought for for years by Kern and Ventura Counties' interests, was characterized locally as "a dream come true". This Ventura-Maricopa Highway, incidentally, followed in general the wagon road survey made through the mountain range in 1891. In 1937, U. S. Highway No. 1 became a complete project when the last links were finished as an oiled highway. Even through the recent war years highway construction has been pushed in the local area as a military necessity.

Communication Systems

In the early days of Forest Service administration, dependence was placed on commercial telephone lines and farmers's projects for communication. Even with the small amount of funds available, telephone lines construction in the Santa Barbara and Monterey National Forests had reached a total of 108 miles by June 30, 1911. In 1916 this mileage had grown to 173, and by 1925 there was a total of 249 miles on the consolidated Santa Barbara Forest.

Not only did the rugged terrain make telephone line construction extremely difficult but imported telephone poles came high. In 1927, local rangers found a readily available substitute for wooden poles in condemned railroad boiler flues, 18 feet long and $2\frac{1}{4}$ inches in diameter

which were flattened and then drilled to hold bolted telephone brackets. Supervisor Mendenhall reported, "I am very much enthused on this scheme of telephone line construction."

In 1932 there were 522 miles of Forest Service telephone lines on the Santa Barbara National Forest. The advent of the CCC program the following year provided an impetus to construction and has been responsible for most of the additional 300 miles built since. Because of its widely scattered area there are two distinct telephone systems on Los Padres Forest, that of the main division and that of the Monterey division. Telephone communication between the forest supervisor's office and the north end of the Forest is over commercial lines.

The more general use of the radio in recent years has proved a valuable supplement and also a substitute for telephone communication on Los Padres. At the present time there are 100 radio sets of different types in use on the Forest, and a yearlong radio technician has been employed for the past several years.

Structural Improvements

Between 1898 and 1908 the local rangers had to be content with tent domiciles, or with living quarters in cabins on abandoned homesteads and mining claims. In the last-named year ranger cabins were built at Cerro Alto, Figueroa, Mt. Pinos and Los Prietos. Los Prietos, formerly called Santa Ynez, was then, as now, an important center, and the dwelling built there - still in use - was the most elaborate, costing \$635, exclusive of the ranger labor responsible for building it. The Mt. Pinos cabin, enduring till 1935, when it was wrecked by a falling tree, cost

\$200. Rangers built the Figueroa cabin with \$50 with which they were furnished to buy other than native building materials. A dwelling costing \$208 was built at Cuyama in 1918. The Tejon Ranger Station plant built at Tejon during early days was later entirely destroyed by fire. In 1928, the cost of dwellings was around \$1,000 to \$1,500 for each building, the bulk of the construction work still being done by contributed time of rangers and guards. The modern ranger stations and guards' headquarters found on Los Padres Forest at present nearly all represent structures built since the start of the CCC program in 1933. The most up-to-date district ranger headquarters such as those at King City, Ojai and Los Prietos have all come into being within the last decade.

The first standard fire lookout on the Forest was constructed on Frazier Mt. in 1917. Mostly a home-made affair, its total cost, including an 8-foot pole tower was \$590. Figueroa Mt. lookout building, elevated on a 12-foot wooden tower, did not follow till six years later, and cost \$1,246. In 1923, also, La Cumbre was built, the 12-foot tower and building costing \$1,263. All of these older fire lookouts are still in service, as is the Cone Peak on the Monterey district, built in the same year.

Hi Mt. lookout observatory and tower were built in 1926, the present building and 12-foot steel tower on Chews Ridge in 1929, and the Santa Paula building and 10-foot tower in 1930. The balance of the primary lookout plants on the Forest were built between 1934 and 1936, the cost range of each building running from a minimum of \$1,530 for the plant on McPherson Peak to \$3,589 for the Branch Mt. lookout house and its 30-foot steel tower. There is an exception to this in the case of the Topa Topa lookout observatory and its 30-foot steel tower. This plant was built

after the others and cost \$6,117. Some experts considered it impossible to build this structure on Topa Topa since it was a long day's pack trip, going and returning, between the spire-like summit and a spring six miles down the mountainside which offered the only level camping spot where mules and horses could rest. Of the 25 primary lookouts on Los Padres Forest, 14 are accessible by saddle and packhorse travel only. In Los Padres lookout construction, the one building serves both as observatory and living quarters.

In addition to its vital need and use for irrigation, water for fire-fighting purposes and recreational use was an ever-present Los Padres problem, and heavy investments were made in multiple use water development projects. Surprisingly enough, an ample supply of potable water has been developed for the use of most of the larger public camp grounds. Water development accounted for a large part of the \$50,000 investment in the extensive Wheeler Gorge Public Camp. The Abbot Lakes development, which includes a series of well-built, modern camp grounds extending a considerable distance downstream on the Arroyo Seco, involved, all told, an investment of \$57,930. This included a long pipeline and the creation of two small artificial lakes. Monterey County cooperated materially in the development of this extensive project which is the main outdoor mountain recreation area for residents of the nearby, hot Salinas Valley.

As a substitute for natural springs, Los Padres officers started construction of water catchment basins in 1934 at suitable spots along roads and truck trails in the dry hills. They scooped out saucer-like depressions of approximately 1,000 square yards in extent on which was spread a waterproof flooring of asphalt mixture. One of these artificially-created watersheds delivered approximately 10,000 gallons of water into

a covered concrete tank during the winter rains. Since the concrete tank, or reservoir, is built mostly underground, there is practically no loss from evaporation during the ensuing dry season. (See Appendix F)

Land Users and Forest Homesteads

When the forest reserves were first set aside, the General Land Office, and later the Forest Service, did everything possible to protect the rights of homesteaders and squatters to the extent sometimes of even recommending for patent, homestead claims in connection with which there had been rather scant compliance with the homestead law.

E. P. Bean, a homesteader near Pozo, located his quarter section in the 1890's. There was little agricultural land on the claim but the claimant spent considerable time camping thereon and doing some gesture farming. In October, 1909, Ranger E. S. Mainwaring, officially examining the claim, found a 8' x 8' windowless pine log cabin, five feet high, with a hole in the roof for a chimney, but no stove below the flue vent. Some patchy cultivation and a little rough fencing had been done. Bean had a crippled wife, and doctor bills kept him in straitened circumstances, so there was probably some official sympathy for the homesteader when the General Land Office granted patent to Bean for the claim on April 4, 1910.

On recommendations of the Forest Service the General Land Office in 1912 cancelled the homestead claim of Elena Avila on San Antonio Creek in the Monterey Forest, a case which had been on the Government books since 1901. The claimant contested the case but detailed investigation disclosed that there had never been more than one acre of land under cultivation at any time, and that the only improvements on the place was an unfinished

stone hut, open to wind and weather.

Another old homestead case investigated by Ranger Mainwaring was that of Epifanio Boranda, located on the San Luis district. Boranda's wife had a patented claim adjoining and he was desirous of adding to the family land holdings. When the claim was finally cancelled in 1911, the ranger testified that the only improvements on the land was a roofless cabin, and the only household utensils an iron pot and a broken heating stove.

About the time the Monterey Forest Reserve was created, Miss Julia C. Pfeiffer filed a homestead claim on the unique and valuable quarter section of Government land now included in Pfeiffer Beach. The Pfeiffer family were well to do stockmen, who by buying out disgruntled homesteaders in the vicinity had built their land holdings up to 3,000 acres. Their ranch headquarters was located 25 miles by sea from the city of Monterey. Miss Pfeiffer herself was a competent all-around farmer and stock-raiser, and managed the family holdings.

The young woman relinquished her claim to the Government in 1908, but later revived the case. Meanwhile, she had built a three-room house on the land and done considerable fencing. She was quite frank in admitting that she wanted the land but did not intend to comply with the resident requirements of the Homestead Law. A forest guard who interviewed her regarding her claim wrote, "Miss Pfeiffer says she would not live on the land she listed for the whole country....She says she thought when she listed the land that one did not 'hafto' live on the land for five years." The case dragged on for ten years, when it was cancelled on the basis that there was not sufficient cultivable land on the claim to constitute

a farm unit.

In 1912, there were only 15 of these old unpatented homestead claims on the Santa Barbara Forest. Meanwhile, the Act of June 11, 1906, or Forest Homestead Law, had gone into effect. While the land hunger of the second decade of the century brought the usual "homesteader" troubles to the local rangors, they were spared a considerable volume of the same because the Forest Homestead Law specifically excluded lands in Santa Barbara and San Luis Obispo Counties. The bulk of the local Forest Homestead applications centered in the Monterey canyons, the Ventura front line, the Cuyama section and on the east side of the Forest.

As on other national forests, there was a tendency on the part of many to try to secure title to a piece of land for purposes not at all intended by the Forest Homestead Law. Sometimes when an application was denied, the applicant squatted on the land covered by his application.

John Foley, characterized in official records as "a tough hombre" domesticated himself on a piece of land near the Tejon Ranger Station and caused local forest officers considerable trouble before final eviction. Between 1919 and 1924 he fenced in a considerable area, even building a fence across a public road. Forest officers in the Monterey Division were called upon in 1911 to help pacify a similar squatter there who had threatened to burn out his more prosperous neighbors. The usual type of squatter-homesteader was in evidence on all parts of the Forest area.

One Forest Homestead case involved Herber H. Cooper who wanted a quarter section of land north of Ojai Valley for a bee pasture, adjoining land which his family owned. In protesting the Forest Service rejection of his application, he argued that his father - a Civil War veteran - had

used the land for this purpose for many years, anyway; that he wanted to get married and settle down; that he desired to live as close as possible to relatives, and that the land involved was just as good farm land as other areas listed for opening to settlement and entry under the Forest Homestead Law.

To save land valuable for public use but frankly submarginal from an agricultural standpoint, local forest officers had areas withdrawn for administrative use. A total of 76 administrative sites were withdrawn up to 1913, but that year 16 of them were released. Other withdrawals and releases action through the years left 45 of these sites still in existence in 1944, most of which are in active use for the purpose withdrawn.

In accordance with the program of the Secretary of Agriculture to settle for all time the matter of reputed agricultural lands within national forests, George Miller of the Regional Office in San Francisco headed up the job of land classification on the local Forest during the years 1917 to 1919, the final land classification report being approved by the Secretary of Agriculture May 6, 1919. This detailed land examination produced no potential agricultural areas of sufficient size to make livable farm units.

The larger part of the Forest Homestead business was confined to the east side, the area transferred to the Angeles National Forest in 1925. Within the present Los Padres, there was a total of 342 homesteads applied for, of which 95 were non-actionable, 58 rejected, and 189 listed with the General Land Office for opening to settlement and entry. The 189 approved homesteads units, which later became mainly sub-marginal farms or private pasture lands, embraced 27,389 acres.

Forest officers were always willing to issue a special use permit to prove or disprove some applicant's contention that a certain piece of land was agricultural in character, and cultivation permits for small areas became a feature in local forest land use administration. This policy of "trial farming" saved a lot of submarginal farmland from passing into private ownership and permittees themselves in some cases from developing homesteaders' misanthropy. It also sometimes proved a thorn in the flesh for local forest officers. An extreme case of the troublesome squatter type special use permittee was that of Mary L. C. Norman - for years known locally by the appellation of "Nigger Mary".

Mary Norman, evidently of mixed negro and Mexican blood, in her younger days was a famous cook in the Virginia City mining region. At the start, in 1919, local forest officers could see no harm in granting her an agricultural special use permit for a small piece of land on Nacimiento Creek on which to spend her declining years. Mary imported her Mexican paramour, and almost immediately trouble developed. The ramshackle fences built by her "steady" Mexican friend and other dark-hued male companions who camped with her from time to time, became a menace to livestock. Her male companions were also accused by nearby settlers of sometimes making off with a calf or hog. Anyway, domestic animals disappeared occasionally without leaving the slightest trace, although actual theft could never be proven.

As time went on Mary became more and more attached to the little domain over which she ruled, but since there was generally a nigger - and perhaps a Mexican and Indian Romeo also - in her private woodpile, plus the fact that she was usually in arrears in payment of special use fees, local administrators decided to cancel the permit. District Ranger

Harry A. Hunt wrote to the supervisor in November, 1920, of the suspected stock-stealing propensities of Mary's cohorts, and added, "Mrs. Norman is living in violation of the laws of matrimony." Mary had formed an attachment for the land, however, and refused to be evicted.

Nigger Mary was a prolific letter writer. She frequently wrote the President himself, sometimes in fairly good Spanish, at other times in decidedly poor English. In an effort to get her away from the locality, nearby settlers often badgered her, and once she wrote the forest supervisor:

"People in this district they tell me i am not living in the land that the Forest rent me...I want evtry right and be peacebly with ebrey Body...pleas tell me if the land is Down the Rivers or up the Rivers from where i am libing."

There was no way of getting Nigger Mary off the land without moving her bodily. As she grew older her mental powers failed and she became obsessed with the belief that "her" land was extremely rich in mineral wealth. When District Ranger Virgil DeLapp was undertaking eviction proceedings, she wrote in Spanish to "Herbert Hoover, President and Ruler of our Republic", intimating that her personal attitude towards forest conservation and the rich values of "her" land justified her being allowed to remain thereon. She continued:

"I write to your majesty in regard to business of this same federal government hoping that you will not ignore because our former President, Calvin C. Coolidge has no doubt informed you of what I am going to say....It is pertaining to the business of Federal Mines which I have discovered. I am 70 years of age and I desire that when I meet the most powerful ruler, our Lord, that he will open my vision to find that mine...The test of silver was \$60 and gold \$35 to the ton. It also contains aluminum, iron and magnesium. I trust my dear Sir that your Majesty will attend to this matter."

Both Forest officers and local residents finally accepted Nigger Mary

as a more or less harmless fixture in her little mountain retreat. In her dotage she was an object of charity of her neighbors and even of local officials. Her male companions had left or died off, one by one, and she spent the last years on the land alone except for a small bunch of chickens roaming at will over the premises, and even roosting on her bed.

In 1940 county relief officials finally prevailed on Mary to leave the land she had occupied for over twenty years. The site was cleaned up by forest officers and the old shack burned. From a charitable institution, during one of her lucid intervals, she wrote the local forest supervisor's office, "i have taken all my thing from Macimiento house where i live for year so the place all vacant i am thanking you very kindly."

Special use permits cover a wide range of land use in Los Padres Forest, apiaries, resorts, churches and telephone lines being included in the list and particularly in later years, considerable military installations.

There being no commercial timber worthy of the name on Los Padres Forest, special uses, outside of the relatively few summer home residences, are connected mainly with the agricultural interests of the region. The same is true of the land exchanges made during the past twenty years. The first land exchange case in 1915 covered 150 acres of Government land exchanged for an equal area of private land. By 1933, six cases had been consummated through which the Government secured title to 2,471 acres of private land. To date the Government has acquired 6,631 acres in exchange for which it dedeed to private owners 6,798 acres. The largest land exchange case was that negotiated with the Kern County Land and Cattle Company in 1940, by which the Forest Service secured 3,494 acres of lands

extremely valuable for public use located on the timbered slopes of Mt. Pinos.

Reforestation

During the early days of Land Office administration and carrying over into the period of the present Forest Service supervision, there seemed to be an obsession on the part of the local public to demand the replacement of the native chaparral cover by coniferous forests. Forest rangers did their best to oblige in the matter of converting the brush hillsides into pine forests.

In 1900, Forest Supervisor Slosson reported to the Commissioner of the General Land Office that "considerable seeding has been done by rangers during 1899 and 1900 resulting in large numbers of pine seedlings two inches above the ground." In the summer of 1901, however, he recorded that these had all died with the coming of hot, dry weather. In 1901, also, local rangers diligently gathered pinon nuts for reseeding burned areas. There was a bumper crop of these that year.

In 1904-5, a tree nursery was established on a well-watered five-acre tract on the mountain ranch of Patrick Kinevan, 15 miles from Santa Barbara. The project continued for some years, the Quaker Club - an organization of wealthy city residents - cooperating in its establishment and maintenance. Some excellent pine groves developed from this venture, but they were on the better valley lands of the rich men's estates and not on the rugged hills of the public forest.

In March and April, 1906, besides carefully sowing 127 pounds of seeds, the local rangers planted 30,000 trees in the Santa Ynez Range. Those trees were two-year old stock of various coniferous species import-

ed several miles by pack mule to Pasadena, shipped from that point by railroad to Santa Barbara, hauled five miles by team and wagon, then packed again by mule to the planting area. District Ranger J. D. Reyes in 1910 planted almost single-handed 163 acres with Jeffrey pine in the Lockwood and Piru areas, and in the vicinity of Ozena, the planting stock being hauled by wagon from railhead at Ventura to Ojai Valley, then packed in by mule.

Three fair-sized tree nurseries were in operation on the Forest in 1910 and planting work continued until 1912, after which it was mainly confined to ranger station sites on more favorable land and later to public camp grounds.

Rangers were wont to plant trees - any species - in time they could spare from their other duties and although records exist on the matter it was probably the late Ranger E. S. Mainwaring who planted four and a half acres of eucalyptus on San Bernardo Creek on the San Luis district. In 1929 a survey of this hand planted forest showed 900 red gum and 1,200 blue gum trees, eight to twenty-four inches in diameter and 50 to 70 feet high.

Here and there on favored sites embraced in used and abandoned ranger stations can be found groves of individual healthy trees, otherwise little vestige remains of the heavy field planting done during the first decade of the century. Limited plantings of cork oak were made on the Monterey and San Luis districts in the mid twenties, but practically all the trees died for lack of attention. The possibility of extensive plantations of this species on Los Padres Forest came to the fore again in World War II when considerable experimental planting was carried on.

Cooperation

Local residents have generally taken a deep interest and considerable pride in their adjacent mountain lands. Federal funds for the local Forest development were slow in coming and in the years just prior to World War I county supervisors commenced matching Federal appropriations for the construction of roads and trails and for other development work on the national forest area within their respective counties. These cooperative funds were responsible for many of the Forest Service improvements constructed fifteen to twenty-five years back. The cooperative county appropriations became such a regular annual procedure that there was built up what became officially known as the Southern California Improvement Fund. In 1929, there was a balance at one time in this fund of \$125,000 for the use of the Santa Barbara National Forest and its three sister national forests south of Tehachapi.

Prior to the transfer in 1925 of 265,000 acres to the Angeles National Forest Los Angeles County was a heavy contributor to cooperative development work on the Santa Barbara National Forest, allotting \$10,000 to \$15,000 to that unit annually. While from 1913 to 1918 Santa Barbara County made an allotment of a few hundred dollars annually for improvement work on their local national forest, the board of supervisors in 1912 upped this to \$5,000. In 1923 there was expended in this county on cooperative Forest Service projects \$14,150, half Federal and half county money. In 1927, \$21,000, and the year following \$14,600 was similarly spent. In the year of 1926 Santa Barbara County contributed \$6,000 and Santa Barbara city \$3,125 towards national forest project work. The joint amount spent in 1931 by Santa Barbara County and the Forest Service, working cooper-

atively, and mainly on road projects, was \$45,008. In 1932, a total of \$36,100 was expended.

On an approximate fifty-fifty basis, cooperative national forest projects in Ventura County cost \$5,122 in 1925; \$6,000 in 1926; in 1930 and 1931, \$16,000 each year, and in 1933, \$21,343. San Luis Obispo County, with a smaller area of national forest land, contributed a small amount annually. In 1926, that county allotted \$802.00 for national forest cooperative work, and \$1,985 in 1929.

For national forest cooperative development work Monterey County contributed \$1,000 to \$1,500 annually from 1919 to 1925; \$6,000 annually from 1926 to 1932, and \$4,850 in 1933. Besides this regular appropriation for forest project work, Monterey County spent an additional \$25,000 on cooperative road construction, mainly on the Nacimiento Forest Highway.

In fire prevention and suppression, Los Padres Forest has worked in close cooperation with the State Division of Forestry in Kern, San Luis Obispo and Monterey Counties, and with the county forestry agencies handling that work outside the national forest in Ventura and Santa Barbara Counties. Since many of the fires which later reach the mountain area start outside the national forest boundary, frequently State or county forces are found working side by side with the U. S. Forest Service on borderline fires. Signed agreements, defining the responsibilities of each agency, are brought up to date annually.

Many individual cooperators have contributed materially to the protection and development of public interests in Los Padres Forest. Dwight Murphy, of Santa Barbara, built up an elaborate headquarters plant of houses, barns and waterworks under special use permit on public lands at Los Prietos. Deciding to build a new plant on his own lands, he sold the

old one complete to the Forest Service in 1939 for \$15,000, thereby economically solving the Forest's problem of a complete ranger district headquarters plant at that place.

About the same time George Owen Knapp, retired capitalist and philanthropist, donated to the Forest Service dwellings and auxiliary buildings which he had constructed on Agua Caliente for a summer home. In building a new plant on his own land at Indian Caves in the heart of the Santa Ynez Range, Mr. Knapp made his water facilities available to the Forest Service for fire protection. Incidentally, the new Knapp home is a replica of a pioneer Western trading post such as Fort Laramie, Bent's Fort and similar fortified trading centers along the old emigrant trails. George Owen Knapp, one of the wealthiest and most public-spirited citizens of Santa Barbara, was always an ardent conservationist. As a gesture of good will, for years he used to stage an annual party for the local ranger force.

Dwight Goddard, head of the Santa Barbara branch of a religious cult, turned both the buildings and the 40 acres of land on which they were located over to the Forest Service, including a somewhat ornate temple which he had built for the members of his sect. The Goddard Place is now one of the popular public camp grounds in the Santa Ynez Mountains. Land was donated by different public spirited organizations for administrative sites at the Carmel and Salmon Creek Guard Stations in Monterey County; at Pozo in San Luis Obispo County; at Pine Canyon in northern Santa Barbara County, and at Temescal in Ventura County.

For the years prior to the outbreak of World War II, a Forest Advisory Committee, organized by Supervisor S. A. Nash-Boulden and County Farm Advisor Sydney A. Anderson, met at stated intervals in

round table session to thresh out national forest and related problems affecting public land use. This committee was composed of representatives from land-using groups and organizations such as livestock producers, sportsmen, public utility companies and Federal, State and county officials from all parts of Santa Barbara County. This group did much to smooth out multiple use problems in connection with national forest administration and present plans involve its revival after the war is over.

During recent war years the closest possible cooperation has existed between the Forest Service ~~on one hand~~ and the various civilian defense organizations, the American Red Cross and other wartime bodies. Cooperative agreements are in effect between the local national forest and different public utilities operating within and adjacent to different sections of the Forest. For many years past funds to pay cooperative fire patrolmen have been furnished by the city of Santa Barbara and by the adjacent Montecito Water District, and expenses of patrolmen have been partly paid in past years in other sections.

CCC, Nira and ERA (WPA)

Until 1933, regular Federal appropriations, supplemented by the so-called Southern California Improvement Fund, were responsible for nearly all development work on Los Padres National Forest. In the spring of that year, President Franklin D. Roosevelt's Civilian Conservation Corps program got under way and for the first time in history the Forest Service had adequate fire-fighting man power of its own, besides men and equipment for needed development work.

During 1933, Los Padres Forest had as many as 17 CCC camps, manned by full companies, in operation at one time. Some of the camps established

and occupied that first year and during the immediate succeeding years were located at Arroyo Seco, Nacimiento, Figueroa, Sunset Valley, Pine Canyon, Avenales, Bates Canyon, Cuyama Valley, Big Pine, San Marcos Summit, Refugio, Mono, Gibraltar, Juncal, Matilija Creek, Wheeler Gorge, Sisar Canyon, Senor Canyon, Lower Sespe and Los Prietos.

The CCC program imposed a tremendous volume of work on the forest supervisor and staff, and district rangers, somewhat complicated by the fact that camps were located in two separate districts, necessitating dealing with two sets of Army overhead. A big problem also was the side, or spike camps. The Army, responsible for the different phases of the enrollees' daily living, education, health and welfare, much preferred to have all the personnel in a company together in one large camp, while the Forest Service looked upon the CCC organization mainly as a medium of getting work accomplished.

Towards the end of the thirties, with the shrinkage of the CCC program, the number of camps on Los Padres was reduced to three, located at Arroyo Seco, Los Prietos and Piedra Blanca, the latter camp being moved during the summer months to Mt. Pinos. With war impending, a veterans' camp, consisting of older men who were ex-members of the armed forces, was established on Mission Creek on the new Hunter-Liggett Military Reservation. For the last three years of its existence, the Piedra Blanca Camp was manned exclusively by negro enrollees--boys drawn from the colored district of Los Angeles.

The four CCC camps mentioned in the preceding paragraph remained on the Forest during 1941, much reduced in company strength by labor demands in war plants and by military conscription. The Piedra Blanca camp was

disbanded early in 1942 and the Los Prietos in May of that year, when enrollees there were replaced by conscientious objectors assigned to a Citizens' Public Service camp. That left only the veterans camp at Mission Creek and a skeletonized company at Arroyo Seco. This last-named camp was moved to Chorro Creek on the San Luis Military Reservation to work on military projects. The entire CCC program was disbanded June 30, 1942.

Besides fire-fighting activities, reforestation, erosion control, range reseeding and major upkeep of existing improvements, the work of the Civilian Conservation Corps on Los Padres Forest was responsible for the bulk of the permanent improvements shown in the Appendix. A considerable number of the more permanent type of forest guards, including both those now on military furlough and those especially exempted from military service to carry on fire protection work, were drawn from the CCC enrollee ranks, in line with the CCC youth training program.

Under the Nira program of forest development coming almost simultaneously with that of the CCC, the national forest provided employment for approximately 150 men during parts of 1933 and 1934. Camps from which the labor was used in construction of roads, trails and other fire protection projects were maintained at Cachuma Saddle, San Luis Obispo, in the lower Cuyama Valley and at Coast Ridge in Monterey County.

There was no scarcity of relief rollworkers in the urban and valley centers adjacent to Los Padres during the years 1933 to 1940. The ERA branch of the Works Progress Administration furnished workers in fluctuating numbers all over the Forest. The majority of these workers were used on maintenance work, including upkeep of roads and trails, fire hazard reduction and cleanup of public camps. The WPA labor secured

included very few skilled workers. In using this class of labor it was necessary to pick up the workers at some central point and transport them by truck to where the work was being carried on. Occasionally, a group of men could be domiciled in a camp fairly close to the work project, but the restricted working hours and the low per capita output required by WPA rules made the working of men in camps a rather poor paying proposition. Some few individual ERA workers rendered good service in such positions as laborers in warehouses, telephone operators and minor clerks at headquarters. The fact that two or three employees must be secured to equal the equivalent of a full time job for one man made the WPA program difficult for local rangers to handle.

One of the best monuments to the Works Progress Administration on Los Padres is an excellent highway of 4.2 miles distance, leading from Highway 150 through the main public campground areas heavily used by Santa Barbarans to the Santa Ynez River, completed by the county with WPA labor in the summer of 1941. This stretch of oiled road is much used also by the Forest Service, since it provides access to the Forest's central warehouse plant and shops, the central mule depot, and Los Prietos Ranger Station. It is also probably more heavily used by the travelling public than any other side road on Los Padres Forest.

Wartime Activities

When national defense activities began to occupy the center of the stage in 1940, large military cantonments were constructed up and down the coast paralleling Los Padres Forest. On some military installations the Forest ^{Service} was called upon to take over the entire construction

program. Crews directed by forest officers worked for months on roads and structural improvements at the big Camp Cooke training center near Lompoc, as well as participating in work carried on by U. S. Army Engineers in other sections.

The Hunter-Liggett Military Reservation, located within and adjacent to the southern half of the Monterey Division, came into active existence in 1941, months in advance of the actual outbreak of war. Here many thousands of troops have been trained in tank warfare and on artillery ranges. A special use permit was issued to the Army in 1941 covering 82,000 acres of national forest land. The War Department for the preceding two years had been buying up the private holdings of some 15,000 acres inside the national forest and a much larger acreage outside, consolidating the entire area of national forest and private land into a military unit of approximately 156,000 acres.

This area was admirably adapted for all forms of military maneuvers, offering a terrain which duplicated almost any in which American troops would be called upon to fight. The only drawback to the area as a military training ground was the intense fire hazard represented by the vegetative ground cover.

Right on the start the Army asked the Forest Service to assume responsibility for fire protection on the reservation, a sizable job in itself, since in addition to the intense inflammability of the ground cover, the military maneuvers called for the use of almost countless tons of live ammunition on lands where a spark was sufficient to start a disastrous conflagration. Then too, there was the added fire hazard of many thousands of troops composed of officers and men from other sections of the nation entirely unacquainted with California's high summer fire hazard.

In addition to fire protection, the Forest Service took over the job of handling the construction work on some of the engineering projects needed. This included the construction of firebreaks around the exterior boundaries of the artillery ranges and tank training areas, the building of main roads, truck roads, and jeep trails. Besides firebreaks and roads, construction work included revetments, bunkers and other special works on the firing ranges themselves. After the firebreaks were constructed, there was the additional work of keeping down the annual growth thereon. Some 100 miles of jeep roads and 75 miles of firebreaks alone have been constructed on this military reservation.

At the start, the local forest officers had a full-sized CCC camp from which to draw part of their labor; later a selected crew of equipment operators and patrolmen was maintained the year around as a combination fire protection and improvement work force. Work on projects was often carried on night and day. These trained men were supplemented by work crews furnished by the Army. Sometimes there were two Army divisions training on the Hunter-Liggett at one time.

One signal wartime service rendered by Los Padres Forest was the conduct of Aircraft Warning Service posts. As early as 1939 this work was carried on on a practice basis in cooperation with Army forces by manning strategic peaks (usually regular lookout stations) for spotting and reporting passing airplanes at any hour, and under all sorts of weather conditions. By the time actual war came, reporting time between these stations and the military centers had been reduced to a matter of seconds only. Bombs had hardly ceased dropping on Pearl Harbor on December 7, 1941, before trained observers were enroute to these isolated

stations. By midnight of that date^a/half dozen posts were in operation on Los Padres, having been previously stocked with food and fuel. There was little sleep for forest officers that night.

The Aircraft Warning Service was a big job. Rough trails or roads, and stub telephone lines were built to rugged mountain summits; buildings constructed originally for summer occupancy were made habitable for winter use. In most cases it was necessary to construct new rough buildings sufficiently durable to withstand mountain winter weather. There was also the problem of food, fuel and water to be met - sometimes dragged up the mountainside by tractor and on occasion parachuted from airplanes to the observers on duty.

Communication with some posts was entirely by radio. Their location ranged from the flat floor of Carizzo Plain to the summit of Big Pine Mountain; from Monterey Bay to Ventura. Due to its location close to possible approaching enemy airplanes, Los Padres Forest had a much greater number of Aircraft Warning Service posts than any other national forest in the California Region.

By March 10, 1942, ten posts were manned; by July 10 of the same year, 23 were in operation, and by August 10, 1942, a total of 36 posts were operating, plus three county and State lookouts on which the aircraft warning work was handled by the U. S. Forest Service. This number continued in operation till November 10, 1943, when a reduction was made to 33 posts. With the lessening threat of foreign invasion, the number was gradually reduced until the final cessation of the work on June 30, 1944. In connection with this work, the Forest also operated message centers at Pine Canyon, Cuyama, Chuchupate, Pozo and Ojai, for speedy clearance of messages to Army centers.

The Aircraft Warning Service produced probably the strangest assortment of personnel ever assembled on a national forest - not excepting even that of the relief workers of the early 1930's. It took real courage and determination for two observers to watch the skies week after week for long hours on some lonely mountain peak in all sorts of weather. Then too, during the summer months these observers served in the dual capacity of fire lookouts, thus adding to their burden of responsibility.

Elderly couples coming out of retirement; eccentric, middle-aged spinsters; men and women of wealth and culture; mothers and daughters serving as a team; old miners and prospectors accustomed to the loneliness of the mountains; boys in their teens who later found a soldier's grave overseas; wounded and shell-shocked veterans from the battle fronts - all were welded into an efficient working organization under the impact of war demands. The nucleus of the sky-watching force was the old standby forest guards who with their womenfolks actively plunged into the new activity. Since posts must be manned every minute of the 24 hours, wives and children of rangers and other officers filled in as observers when some emergency arose. At the peak of this work, including telephone and radio operators at message centers and necessary overhead, there was a total of nearly 100 Aircraft Warning Service employees on Los Padres Forest. The human element in the work was covered in a special state-wide history compiled for the Forest Service and Army by the writer of this history.

Selection and laying out of maneuver grounds for troops in training; location of temporary military camps; services of lookouts with an ocean view and construction of access roads to strategic mineral deposits were a few of the wartime activities of Los Padres officers. Maps of

specific areas prepared through the years proved of great value to the armed forces. Because of the great demand for accurate detailed maps, a special mapping project was carried out over a large part of Los Padres hinterlands during 1942 and 1943. Although much of this mapping work was done by the most modern method of aerial reconnaissance, local rangers with their sure-footed mules came very much into the picture in the back country.

Location of lost and crashed airplanes, succor for the crews of downed ships, and often the sad task of bringing out the bodies of dead fliers, constituted recurring incidents in the lives of local forest officers. In services to the air forces, Los Padres mules again played an important role in back country areas where no other form of ground transportation was possible.

On April 1, 1945, the service flag of Los Padres Forest showed 48 stars for the men and women serving in the armed forces, and one gold star for a forest officer killed in action. The places of these employees were filled with temporary appointees so far as man-power was available and in the case of seasonal forest guards often boys in their teens, women lookouts, and men past the age for military service.

- CHAPTER VIII -

FIRE PROTECTION

Degree and Types of Fire Hazard

Besides the ever-present inflammable chaparral cover, winter rains bring a lush carpet of annual vegetation to Los Padres, much of it on slopes too steep for the grazing use which might serve to reduce its density. During the summer months this vegetation becomes bone dry, highly inflammable, and subject to ignition by any chance spark.

In the average year, over most of the Forest's area there is no rainfall between April and late November and during the dry season the climate is marked by hot, searing winds and periods of low humidity, which drops sometimes to five per cent air moisture content, and lower. Rains do not always materialize in late fall. In late January, 1904, the supervisor reported that there had been no rain for nine months, and the 1903-04 winter rains did not actually come till February of the latter year. There was no December rainfall whatever at Santa Barbara in ten of the years between 1867 and 1943, and less than one-quarter of an inch during that month in five of the other years of that period. This 76-year record shows also that a cumulative total of only .41 inches of moisture has fallen in the month of July in the central part of the Forest.

Another factor adding to Los Padres high fire hazard in some sections is the close proximity of heavily-populated areas to the national forest boundary. Many fires accidentally starting from various forms of land use burn up into the rugged hills where they are exceedingly difficult to control. A climatic feature in Los Padres' favor, however,

is the almost entire absence of electric storms over most of its area. In a twenty-year period, from 1921 to 1940, slightly over ten per cent only of the total number of fires were caused by lightning. These mainly occurred on the Cuyama and Mt. Pinos ranger districts. There were only six fires out of a total of 285 from this cause during the years 1941 to 1944, inclusive.

Early Day Fires

Records of fires in the olden days are exceedingly meager. Those which were kept by the Mission Fathers were largely destroyed during the period of Mission secularization. That the Spanish conquerors of California were fully alive to the summer fire hazard is evidenced by a fire prevention order issued by Jose Joaquin Arrilaga, governor of the province, on May 31, 1798. This order, circulated among the Missions, threatened Indian neophytes with the "rigors of justice", should a fire result from any act of carelessness on their part.

Richard Henry Dana records a great fire which swept the mountains adjacent to the pueblo of Santa Barbara about 1823. According to information furnished Dana by local residents, the heat generated by this fire was so great that the entire population was forced to leave the town and camp for several days on the beach. Wild land fires ringed the same town in October, 1869, and again in October, 1871, destroying orchards and structural improvements. In the latter year, the heat was so great during the progress of one fire that the temperature shot up from 60 to over 100 degrees within an hour's time.

In June, 1877, residents of Santa Barbara County turned out en masse

to fight a fire raging through the hills which had destroyed a large number of cattle trapped in its path. Newspapers of the period agree that had it not been for the efforts of these volunteer citizens, many ranches would have been burned out and a considerable number of lives lost.

Damaging brush and grass fires in Santa Barbara County were headlined in California newspapers in the years of 1885, 1889, 1890, 1894 and 1895. During one week in September, 1889, local authorities estimated losses from uncontrolled rural land fires at \$200,000 in the county, besides heavy losses in the surrounding counties. Earlier that same year, dwellings and outbuildings on twelve foothill ranches were burned to the ground by a fire in central Santa Barbara County. The fires of 1895 continued to burn uncontrolled almost up to Christmas Day.

Los Padres area was in the main a livestock country until the closing years of the nineteenth century and before the creation of the forest reserves, stockmen were prone to deliberately set fires to facilitate the movements of livestock over the ranges. These fires, developing into raging conflagrations, often proved boomerangs to the interests of the stockmen themselves. Fires causing heavy property damage from the actual flames and from later accelerated soil erosion are mentioned by the press as occurring in San Luis Obispo County in 1881, 1883, 1885, 1890 and 1897.

In 1886, Ventura County residents were up in arms over the bad fires started by sheepmen in the northern section. Three years later various parts of the county were swept by bad fires which not only destroyed the watershed cover, but caused heavy losses on adjacent ranch property.

In 1894, almost the entire area of the present Monterey ranger dis-

trict of Los Padres Forest was burned over by fires which raged unchecked for weeks at a time. In 1896 residents of Carmel were lamenting the destruction caused by fires in northern Monterey County from careless campers.

Prior to the period when public pressure brought about the withdrawal of the local forest reserves, public land was a sort of "no man's land". Although State forest fire laws had been in effect since 1892, little law enforcement action took place and wild land fires, whether started intentionally or by accident, were allowed to burn without attention until property interests were threatened. There are few records extant of fires which occurred during the nineteenth century, but the first Government officers examining forest reserve lands during the late 1890's and early 1900's recorded that most of the area later becoming part of Los Padres Forest had been burned over at some time during the preceding two or three decades.

Fires Through the Years of Administration

Although they stopped many incipient fires and toiled for days on end to control ^{large} fires, the pioneer forest rangers also left scant records. One record mentions rangers and local ranchers handling a bad fire on the south Santa Ynez slopes in July of 1900, bringing it under control before it had spread over more than a few hundred acres. An informal fire report dated July 19, 1902, sent to the forest supervisor by the wife of Ranger J. M. Larmer covers a fire which burned 2,000 acres on the east side of the Pine Mt. and Zaca Lake Reserve. The ranger himself, appended a note to his wife's report which read: "Fire is all out and I am glad of it for I am tired out myself."

In a rather jubilantly-worded report on the forest fire situation to the Commissioner of the General Land Office, Supervisor Slosson wrote on June 29, 1903, "During the past five years during which there has been almost total exemption from forest fires, cover is being established in many places where was practically no covering on account of previous periodical fires." He had previously written to his chief that local settlers spoke "very encouragingly of the better conditions since the Government has commenced its patrol system." Slosson was worried over the hazardous fire situation the following year, however, since he wrote Washington in early January, 1904, that there had been two fires in December, 1903, and no rain for nine months.

One bad fire which burned several thousand acres in the Ventana area of the Monterey Forest Reserve broke out on September 17, 1909. Through the slow process of a letter from the ranger's sister, Supervisor Tyler learned of the fire two days later and of the tough battle which the ranger and his crew were having. Tyler recorded in his diary that he left Salinas September 19 with a livery team, leading his saddle horse, and drove by road 35 miles in a little over three and one-half hours - something of a record. Next day he spent 17 hours in the saddle, reaching the fire on September 21. He stated that the weather was oppressively hot, and that he became violently ill. From the record he left, Tyler had a rather rough time of it, but fortunately that particular fire was checked by a freakish rain storm occurring on September 25.

The Branch Mt. Fire of 1912 was evidently started by a disgruntled homesteader and burned over 12,000 acres before it was controlled. Ranger John B. Libeu was critically ill for weeks as result of over-exertion on this conflagration. Five fires started that same year in the Figueroa

section by stockmen intent on deliberately burning the range, were controlled while small. One of the 1912 fires which burned over 1,900 acres was started by a man knocking ashes from his pipe.

A fire broke out in the Big Sur section on August 5, 1916, and burned over 13,000 acres, soldiers from the Presidio of Monterey furnishing the bulk of the man-power in the five-day fight. This blaze burned out several ranches in that locality. A few days later another fire broke out in the same general section, but was controlled within 1,000 acres.

The year of 1917 was a bad fire year on the Santa Barbara National Forest. The head flew off a match while a man was lighting his pipe and ignited the dry grass. Although the two men present jumped on the flames immediately, they raged out of control and the resulting Avanales Fire burned for two weeks before it was corralled, covering 16,560 acres. That same year there was a water famine in the city of Santa Barbara when a fire in Mission Canyon burned the wooden trestle supporting the main water pipe leading into the town's storage reservoir. This fire destroyed a considerable number of buildings.

Out-of-state newspapers of early October, 1917, reported a half-million dollar fire damage on the Santa Barbara Forest for that year. It was actually not quite so bad as that, but bad enough. Overworked forest officers toiled day and night on one large fire after another. One of the worst of these was ~~one~~ occurring north of Ojai Valley on which Ranger J. D. Reyes again came into the limelight, when he was credited with saving 32 trapped men from almost certain death. Although Reyes himself minimized his action, a current newspaper pictured him with an axe in one hand and a machete in the other clearing a path through the brush for the fire-fighters. The press item stated that "it was a feat of strength

possible only for a woodsman of Reyes' physique."

On that same fire which was characterized by very high, searing winds, two rangers herded 152 men over a cliff a scant half minute ahead of the rapidly advancing flames. Some of the men even had their clothing scorched; others had their clothes almost torn from their backs in the mad scramble for safety. Close by three men saved their lives by submerging in Matilija Creek while the fire blast passed over them.

Los Padres brushland fires create an intense heat, flash over the country as though the flames were propelled from a flame-thrower, then rapidly cool. On one of these fast-travelling fires on the Cuyama ranger district in 1921, many cattle and deer were caught and burned to death. In August of that year three fires broke out simultaneously in the main division of the Forest and burning together covered an area approximately ten by twenty-five miles in extent before being brought under control by 600 fire-fighters. There were a total of six major fires burning on the Santa Barbara Forest at one time during that month.

The Sweetwater Fire in the Sisquoc country started on August 2, 1923, and eventually burned over 23,000 acres. The Army Forest Air Patrol under Major H. H. Arnold - now a five-star general and commander-in-chief of the U. S. Army Air Forces - rendered good service in this fire. Rangers from other national forests of California were brought in to relieve the fagged-out local officers. The heart-breaking task of controlling this fire consumed three weeks and Supervisor M. A. Benedict of the Sierra Forest somewhat jocularly wired Supervisor Jordan relative to his rangers (whom the latter had borrowed), "No sign of men yet - would like them back before Christmas."

The forest fire season of 1924 in the Western United States was pro-

bably the worst in California's history, and Los Padres suffered in common with other forested areas. Day after day and week after week red-eyed, weary forest rangers battled one blaze after another. The first bad fire of the season occurred in late February and for a couple of days seriously threatened the extensive estates of the wealthy in Montecito, Santa Barbara's elite suburb. In the other end of the Forest a bad fire was started in March by a Mexican engaged in a Sunday rabbit hunt. The Pine Canyon Fire in the center of the main division of the Forest was presumably started by a deer hunter and burned furiously over a large area during the last ten days of August and well into September before being controlled. This fire eventually covered over 12,000 acres, several separate fires in rugged canyons burning together.

The Miller Canyon Fire on the Monterey ranger district burned for two weeks during the first half of August, 1928, covering 15,000 acres and destroying a lookout house which stood in its path. In the same district the following year, large crews were fighting several big fires burning at one time.

The Hopper Canyon Fire on the Ojai ranger district started well outside the national forest boundary on July 21, 1929. Left as safe by a county crew, it broke out again, and 200 men worked for several days to corral it within an area of 5,000 acres. In the same district in late September, 1929, the Lower Sisar Canyon Fire, started by a broken power line, burned over 15,000 acres outside the national forest, 800 acres inside, and destroyed a considerable area of orchards. August of that same year witnessed several hundred men battling blazes on various parts of the Forest. On the Salisbury Canyon Fire that fall whirlwinds scattered firebrands far and near, resulting in a burned area of 6,000 acres.

In 1939, the Machesna and Cerro Alto Fires on the San Luis ranger district broke out almost simultaneously, burning over 31,000 acres during the month of August in two widely separated areas. At the same time the Bixby Mt. Fire was burning on the Monterey ranger district, mostly outside the national forest. On this fire, Joseph Calandra, 23-year old State Ranger, was trapped in the smoke and burned to death, several other fire-fighters being injured. On the Branch Canyon, Machesna, and Cerro Alto Fires that year, fire-fighters frequently had to run for their lives. In the late fall, another fire started by a smoker-traveler on the Monterey Coast Highway, gave forest officers a tough battle.

The San Marcos Fire, burning during August 10 to 14, ^{1940,} provided a thrilling spectacle for thousands of Santa Barbarans and outside visitors celebrating the annual Spanish Days festival, and ashes rained for several days on the city streets. Like many other fires this one came in from the outside and swept over 4,365 acres in spectacular rushes. Besides the valuable watershed cover destroyed and damage from siltation of valley lands the following winter, the loss to public utilities traversing the area was \$12,000, and mountain residences valued at \$123,000 were burned to the ground. Several fire-fighters were injured in this fast-moving fire, and details of state traffic officers guarded highway approaches to keep back curious crowds desiring to see a forest fire at close range.

The Civilian Conservation Corps, although somewhat curtailed in strength was still available to local officers for fire-fighting in 1941. Four major blazes were controlled that year with CCC labor. In the succeeding war years, the Army and Marine Corps from the various nearby bases furnished the main source of fire-fighting man-power. Not only were the armed forces exceedingly cooperative in furnishing help, but unit commanders

often welcomed the opportunity to send their commands out on the fire line, since forest fire-fighting, they said, simulated actual battle conditions more than any other peacetime activity.

Soldiers and marines, and sometimes both, have been present in force on nearly all major fires on Los Padres Forest in recent years. One of the worst of these was the Tule Canyon Fire within and adjacent to the Hunter-Liggett Military Reservation on which a total of 3,800 soldiers were mobilized at different times between July and 12, 1942, and which burned 11,150 acres before final control. One soldier lost his life, several were injured, and considerable military motor equipment was lost on this blaze. The fire was first discovered by the commanding general and his aide, traveling cross country in a jeep, just as it started in the high grass cover. Although both the officers and some nearby soldiers jumped on the fire immediately, it quickly raced out of control. One Army officer, referring to the rapid progress of the fire, afterwards stated: "It quickly became a matter of self preservation." This fire, like many others in war years, was fought jointly by the Forest Service, State Division of Forestry, and the Army forces.

Several other major blazes were fought by local forest officers with military aid in 1942. The Reliz Canyon Fire, west of Salinas Valley, swept over 20,000 acres in July and burned a considerable number of livestock. The Robertson Ranch Fire in the San Luis ranger district started from the exhaust of a farm tractor and burned close to two thousand acres. Both these fires started well outside the national forest boundary and burned very small areas inside. The Lockwood Creek Fire, however, in late June of that year, burned entirely on national forest land, a spark from the flue of a miner's cabin resulting in a 4,130-acre fire battled for

several days by 450 men. Four soldiers from Camp Roberts were specially decorated for heroism displayed on local forest fires in 1942.

Besides the inevitable smoker fires in an area where many thousands of men were training under wartime pressure, several bad fires were started in the Hunter-Liggett Military Reservation in 1943 by hot lead ricocheting over the firebreaks. One of the most stubborn of such was the Gerlach Fire of 1,800 acres fought by soldiers from July 6 to 10.

In 1944, some 800 soldiers were mobilized to fight a fire in old Los Burros mining district. The fire started in an abandoned, tumble-down miner's cabin, evidently by a rodent gnawing on a friction match dropped by a former occupant long before. The largest fires of the year, handled by the local forest officers, county forestry department crews and the armed forces, which burned late in August were kept from reaching the higher and more inaccessible watershed areas within the national forest. One was the Gaviota Fire which burned 10,000 acres of range and resulted in the death of a young fire-fighter isolated by the flames. Another was the San Marcos Fire which burned 12,000 acres. The temperature stood at 107 and the humidity at 4 on August 26, producing a climatic condition which caused this fire to run over 8,000 acres of range and woodland in eight hours. On six Los Padres fires on which troops were used in 1944 - outside the Hunter-Liggett Military Reservation - the services rendered by a total of 65 officers and 1,900 enlisted men amounted to 15,752 man-hours.

Most of Los Padres fires have been caused by the accident of human use and by human carelessness, with little actual incendiarism. Some years back before smoking restrictions were applied, a father and son on the San Luis ranger district lit their pipes and casually dropped

their unextinguished matches in the grass and weed growth. They later confessed that they wanted to see fires start as a result of these acts, but also wished to provide themselves with an alibi that such fires "accidentally" started while smoking. More deliberate arson was the practice of two Mexican incendiaries, finally run to earth by local officers. One of the stunts which finally landed them in a justice court was tearing pieces of cloth from an old quilt, lighting them and throwing them in the dry vegetation along the highway. They figured the cloth would smoulder long enough before igniting the dry grass to allow their jalopy car to take them some distance from the neighborhood.

Five or six years ago forest officers patiently trailed an incendiary in the San Luis Obispo section who manufactured a slow-burning torch wrapped inside a tobacco sack so that he could be some distance away when the fire took hold. About the same time both urban and rural fire-fighting forces in Los Padres area were plagued by an epidemic of grass fires started by youngsters shooting large friction matches from a catapult manufactured from a spring clothes pin and a rubber band. It was plenty of fun for the boys to watch the match burst into flame as the head struck a rock or some other hard-surfaced target.

The Famous Matilija Fire

All the major fires on Los Padres National Forest pale into insignificance when compared to the great Matilija Fire of 1932, probably the fastest burning and one of the largest wild land fires recorded in Forest Service history. This fire broke out at 10:00 A.M. on September 9, 1932, started by some unknown deer hunter. Before it was controlled fourteen days later, it had burned over a total of 219,255 acres in

Ventura and Santa Barbara Counties.

This fire literally exploded over the landscape and covered 20,000 acres within a few hours of its start. During the first eleven days of its progress it burned over 10,000 to 30,000 acres daily. Supervisor S. A. Nash-Boulden, veteran fire-fighter, was in charge of the fire, and later said in his official report:

"I believe it safe to say that no fire in California has ever made such a rapid and continuous burn...The rapid runs made by the fire were of such intensity that fire-fighters on a greater part of the fire line were in constant danger. Within an hour's time on September 10th the fire travelled a distance of fifteen miles."

Forest officers from all parts of the California Region, and from neighboring states as well were called upon to help direct the 2,500 fire-fighters drafted to fight the flames. State Division of Forestry officers, county fire crews, and even units of city fire departments worked alongside the Federal fire-fighters. Seventeen large fire camps were in operation at one time, besides numerous smaller "fly" camps. Twelve of the large camps could be serviced only by pack mules, due to the rugged nature of the country. Airplanes were used extensively for observation and scouting work. Fire-fighting equipment was loaned freely by even quite distant metropolitan centers. The fire lines built to check the progress of the flames totalled approximately 450 miles in length.

It was estimated that 90 per cent of all wild life in the fire area was killed and burned deer carcasses were a common sight. A considerable number of domestic animals also perished in the flames. Strangely enough, although numerous fire-fighters were injured, only one man was seriously hurt and there were no human fatalities on this big fire. A special reward of \$1,000, offered by the Secretary of Agriculture for information leading to the arrest and conviction for the person or persons responsible

for starting the fire, was never claimed.

Stories are still extant locally of cool-headed leaders saving the lives of fire-fighters. Supervisor Nash-Boulden and a crew of twelve men in reconnoitering the fire one day drove up a truck trail and parked their cars in the most open spot near a trickle of water. A sudden shift in the wind brought the flames on all sides of them. The crew became panicky and wanted to retreat down the road in the cars. Nash-Boulden insisted that they stay where they were. Amid the choking smoke and intense heat the crew backfired the cover from their fairly open space, shielding their faces and necks with wetted handkerchief and their heavy Stetson hats. Their cars caught fire time and again but they managed to save the tires by throwing dirt on the flames. The tops and cushions of the machines were covered with spotted burns, but were driven back down the hill under their own power.

Forest Guard Bill Bowhay started to drive up the same road about the same time. As the fire reached the roadway the forest officer jumped from his car and ran down the road for his life. He had hardly left the machine when dirt and shale rock, loosened by fire action, descended in an avalanche, burying the car several feet deep and putting out the flames creeping over it. The car was later dug out, two new tires installed, and driven away under its own power.

A forest officer with a crew of 80 men was cutting a fire line between Matilija Creek and the end of Highway 399. Supervisor Nash-Boulden, viewing that section of the fire from some distance off, figured out what its behavior would probably be and sent word to this division leader to bring out his entire crew. The two sections of his line being almost joined and sensing no immediate danger from where he was located, he sent

back word that he would stay for a little while longer and finish his line construction. Nash-Boulden sent a speedy messenger telling the forest officer in no uncertain terms to get his crew out of there immediately. This time the division leader obeyed. The last group of men had hardly scrambled down the hill to a place of safety when the flames swept over the area where the entire 80 men had been working. Had there been a moment's further delay every man in that sector would have been trapped and burned to death.

Several women, used to outdoor work in the mountains, rendered signal service in aiding the effort of the fire-fighters. Mrs. H. M. Hunt, comely, slenderly-built horse rancher of Ojai, was one of these. She won the admiration of Forest Service leaders for her coolness and efficiency in handling a string of pack mules transporting supplies to isolated camps. Mrs. Hunt was credited with saving a bunch of bewildered fire-fighters from being killed or badly burned when she assumed charge of the group and kept them huddled under wet blankets during one of the runs of the fire across a creek bottom.

This large fire had the result of speeding up construction on Highway 399 which made this large interior region more accessible. Formerly the project had been somewhat opposed by leading private citizens-conservationists on the ground that the new highway would bring more people into the area, and thereby a greater fire risk. Six thousand acres of the burned area was immediately sown to mustard seed, pioneering a later standard practice of mustard sowing on burned-over chaparral lands, to establish a quick, temporary ground cover for holding the soil in place till the native brush could reestablish itself. The cost to the Forest Service of controlling this huge fire was \$107,000.

Fire Prevention

In the middle twenties and during the thirties there was a considerable tightening up of fire prevention efforts. Particular attention was paid to schools and local foresters, Federal, State and County, redoubled their efforts to bring about in all classes of people a realization of the extreme dry season fire hazard of California's summer outdoors. Local newspapers and representatives of large corporations closely cooperated in these efforts.

The California Conservation Council, largely through its president, Miss Pearl Chase of Santa Barbara, worked state-wide to inculcate fire consciousness in the citizenry of the commonwealth, using every medium possible to promote the spread of conservation practices and fire prevention. California owes a tremendous debt of gratitude to this public-spirited woman who for many long years has given freely not only of her time, but of her not inconsiderable fortune as well.

California Conservation Week, fixed by law as March 7 to 14 annually, has become an institution in the State. From her office in Santa Barbara Miss Chase directs concentrated efforts during this week through the group of leading conservationists and foresters forming the Council, utilizing the services of the press, radio and the entire educational system of California. While this week is especially set apart to emphasize the importance of fire prevention and conservation of the state's natural resources generally, the California Conservation Council is active through the entire year as well.

As an illustration of the honest ignorance relative to the flashy inflammability of the local vegetative cover on the part of people from

other parts of the nation, the following incident might be cited:

On the Hunter-Liggett Military Reservation a body of troops had just finished controlling a large grass and woodland fire under the direction of their own and Forest Service officers. Since their former bivouac ground had been burned out by the fire, the battalion had moved to a new camp site. The Commanding Officer of the Reservation and forest officers inspecting the new site shortly after found that the tents had been pitched in the tall dry grass without any clearing whatever; cooking stoves were going full blast without any protective fire equipment; soldiers were lighting gasoline lanterns for night use right in masses of dry grass; and men were smoking everywhere. The battalion officers were somewhat puzzled as they set about fireproofing their camp in accordance with instant orders by the camp commander.

Law enforcement efforts were tightened up in the middle thirties and a special officer was assigned to the Forest for this work, and to assist rangers in stressing the need for greater fire prevention efforts on the part of the public. Residents on private land in the foothills and mountains were canvassed individually by field officers and prevailed upon to clean up weeds and trash around their buildings, install safety flues in their residences, and take other fire precautions. Fire protection requirements in connection with special use residence permits were tightened up and public utility companies, themselves heavy sufferers from wild land fires, redoubled their efforts to fireproof rights of way and installations.

The Forest Service regulations which permitted smoking only at human habitations and at improved camps, and the requirements that campers carry fire-fighting tools were rigidly enforced, as was the camp fire permit

system. Open camp fires were banned entirely on Los Padres, as on other national forests in Southern California. Annual fireproofing of public campgrounds became a major job and roadside fire hazard reduction a standard practice. Although there were no actual regulations on the matter, in the late thirties Forest Service camps and individual forest officers on Los Padres personally were urged to use safety matches exclusively, in lieu of the friction variety.

Next to actual fire-fighting, from 1930 on, fire prevention became the main work activity on the local Forest, fire prevention and fire suppression work accounting for the bulk of administrative cost expenditures. The greater part of the money expended in development was for fire protection and fire control improvements.

Closures and Restrictions

Probably anticipating later closure to recreational public use during the open fire season, the Santa Barbara Morning Press of September 2, 1921, declared, "The forests should be protected but not by locking them up." In 1931, over 250 miles of national forest boundary was effectually closed to entrance by the public due to local ranchers forbidding the use of their lands which adjoined the boundary or extended over into the national withdrawal. No extensive closures, however, had yet been put in effect on national forest lands.

The population of the coastal area of California adjacent to Los Padres National Forest increased sixteen times during the years 1890 to 1940, and in the latter year the total investment in irrigation and major water control works was some 266 million dollars. Expanding automobile travel had increased the use of wild lands to an even greater degree than

that indicated by the general population increase. The fire risk had thus become many times greater, by the simple fact that heavier human use of any area means a greater fire hazard. Although portions of the national forest had been closed from time to time during hazardous fire periods, irrigators and others with vested interests dependent upon the forested watersheds became quite insistent in their demands that the general public be banned entirely from the use of the national forest area during the regular fire season. Closure action was not too popular with the Forest Service, the policies of which were based on the multiple use of public lands by the greatest possible number of people.

The deer hunting season on Los Padres Forest opens August 1 to 10, and continues till mid-September. The open deer hunting season is also the most hazardous fire period of the year and when forest closure began to be advocated, the thousands of deer hunters set up a mighty howl of protest, sportsmen's organizations all over the state joining in. In 1933, Regional Forester, S. B. Show, approved the plan of Supervisor S. A. Nash-Boulden covering the use of the Gibraltar watershed under a special use permit system whereby the movements of recreational users, mainly deer hunters, were closely supervised. Since this system produced rather successful results, a brief history of this special closure will be recounted under a later heading.

In spite of the shortage of man-power, there was only partial closure of Los Padres National Forest in 1941, deer hunters and other recreationists being allowed to enter most of its area under the special permit system developed in connection with the Gibraltar closed area. The Forest was closed in general to recreation use during the years 1942,

1943 and 1944 from the opening of the active fire season at a varying date in June until November 30. Even this closure, however, left open to public use all public campgrounds along main highways and county roads, and all of the Mt. Pinos recreation area. The former included such extensive camp ground systems as Arroyo Seco in Monterey County, the Figueroa Mt. section, the series of camps along the Santa Ynez River, Wheeler Gorge and others in Ventura County.

There was comparatively little complaint among the sportsmen about the Forest closure in 1942, particularly since the commanding general of the armed forces in California had declared it a military necessity. As imminent enemy invasion of California became less during the second year of the war, sportsmen's organizations emphatically protested closure restrictions in 1943 and still more strongly in 1944, even going so far as to bring all sorts of personal accusations against the supervisor in charge of the Forest. He was called a martinet, a despot, and accused in open meetings of arbitrarily enforcing closure for reasons of his own.

The more unreasonable element, resenting any interference with their hunting, even went so far as to accuse the Forest Service of padding fire and research statistics to make a case against the hunters as fire-starters. At one large meeting in Santa Barbara, Regional Forester S. B. Shaw told delegates from sportsmen's organizations all over the state that he, and not the local supervisor, was responsible for closure restrictions, under the existing policies and regulations for national forest use and protection.

For the period December 11 to 31, 1943, the State Division of Fish & Game, through legislative action, established a special deer hunting season in parts of Los Padres area, to substitute for the summer hunting

of August and September. From the standpoint of the Forest Service this winter deer season was a success,--at least there were no fires in the watersheds. From the hunters' point of view, it was a decided failure because of the facts of the deer being thinner and the meat reputedly less palatable. However, of 156 deer actually checked and weighed by local forest officers, the animals averaged only eight and nine pounds lighter than deer of the same classes taken during the regular hunting season in the years 1936-40.

During 1944 and the first months of 1945, there was a decided trend by the clearer thinking class of sportsmen to endeavor to develop some happy medium whereby the deer hunters would be assured of their sport, while at the same time an approximate equal fire protection would be afforded the watersheds as that achieved^{by}/their full closure. Regional Forester Show in a special open letter dated March 12, 1945, pointed out that that was exactly what the Forest Service was after too, but that the proper administration of public lands to produce the major resources, water, had first place. So great has been the pressure of organized sportsmen's groups during recent months, that local civic organizations and the State Legislature have memorialized the Forest Service to keep Los Padres Forest open the year around to all forms of use.

Besides Regional Forester S. B. Show, Assistant Regional Foresters C. B. Morse, F. P. Cronemiller and W. I. Hutchinson, other Regional officers, Chas. J. Kraebel of the California Forest and Range Experiment Station and state officials met with groups of organized sportsmen from time to time without the latter bringing out anything new which could change the fundamental viewpoint of the Forest Service.

Some of the recent proposals of the organized sportsmen include

keeping the entire Los Padres Forest open under a restricted permit system; substituting a winter deer season for the time-honored summer hunting; establishing a spring season in late May and early June and setting up a split season, part winter and part spring, or, splitting the season to allow a half month's summer hunting on outside lands and a half month on the national forest during winter and spring. The sportsmen's suggestions also include making each hunter a special, unpaid deputy fire warden and allowing only hunters to enter the Forest who can successfully pass a special examination showing them to be qualified to properly conduct themselves in the mountains. The short man-power situation, biological considerations, and the impossibility of discrimination among recreational users of public lands are all factors against the adoption at present of most of the sportsmen's recommendations.

The matter of the joint use of Los Padres Forest by dependent water consumers and hunter-recreationists is by no means settled. It must depend upon a meeting of the best minds of Forest Service administrators guarding water supplies at their source, of the State Department of Natural Resources charged with proper administration of the game resource, and a more liberal give and take attitude on the part of the sportsmen themselves.

The Gibraltar Closed Area

The Gibraltar watershed embraces 273,000 acres. Resulting in a critical depletion of the water supply of Santa Barbara and the valley adjoining, 37 fires burned over 106,578 acres of this watershed between 1916 and 1930, and 13 fires an additional 49,134 acres in the years of 1932 and 1933. Only four of these fires were caused by lightning and burned an inconsequential area. The balance were man-caused.

The closed area permit system was put in effect in 1934. No one could enter the area without possessing a formal permit which specified the permittee's route, the exact period of time he would be within the area and a detailed plan of his movements. The permittee agreed in writing to all fire restrictions imposed, and the permit was checked and signed by patrolmen contacting him on the ground. Ingress and egress was through locked road and trail gates. The permit was immediately revocable for violation of any of its provisions, and was surrendered by the holder when he left the Forest. People whose daily work took them into the area, such as the few residents and employees of local water companies, were provided with a special seasonal permit.

There were no fires within this area in 1934, nor in the four years following. In 1938, the 79 designated camping places--which had been fireproofed and equipped with special stoves--were occupied for an average of three days by from two to 260 people. That year 99 seasonal permits and 2,050 of the temporary use permits were issued. Of this latter, 248 persons used the area without camping out and 1,802 were actual campers. Besides the contacts at the checking stations, 1,691 permittees, or 82.5 per cent, were contacted personally by forest officers while in the area. The larger proportion of users were deer hunters.

In their checkup at the close of 1938, local officers were jubilant over the success of the plan, but Nash-Boulden himself frankly admitted that the fact of no fires occurring in the area during a five-year period might have in it an element of luck. However, again there were no fires in the Gibraltar closed area during 1939, 1940 and 1941, the same permit system had meanwhile been extended to include part of the adjoining Santa Maria watershed.

The fly in the ointment was the fact that the permit system took a large number of forest guards to effectively handle it. Registrars must be maintained at points of entry for the entire 24 hours of the day, more patrolmen were needed, and a rather high type of guard personnel must be used in the work. Moreover, funds to carry on such intensive protection work were not readily available and during the war years, with its man-power shortages, the special permit system was not possible.

Fire-fighting Techniques and Equipment

It is a far cry from the old time rangers of 1905 fighting brush fires with a few handtools to the modern fire-fighting equipment of the present day. Yet the problem of handling brush fires is essentially the same,--to use the last ounce of human effort to control a fire in its early stages and failing that, to take every advantage offered by the topography, natural breaks in the cover density, and best use of available man-power.

During the years various forms of horse-drawn fire-line builders were used by the local rangers to supplement hand labor--all the way from plain, heavy iron drags to tear the brush cover out by the roots, to specially-designed trail plows. Powered brush-cutters of various types have been tried with varying degrees of success but never became standard equipment. More and more as the years rolled by, local rangers resorted to backfiring and the hand flamethrowers are now supplemented by the powered type mentioned previously, and by the standard Hauck torch. Cheaply constructed fusees which could be ignited and thrown out almost as fast as a man could walk were also used for this purpose.

The use of tractors and bulldozers for building fire lines in front

of or parallel to an advancing fire commenced in the late twenties. The use of the heavier, later type of bulldozers, one of which could tear out a fireline faster than a large crew of men with hand labor, increased year by year, and expert operators now take them over steep terrain considered impossible a few years ago.

Pack mules continued to play a leading part in local fire-fighting and truck loads of the animals, ready for action, can be started rolling within a few minutes of the receipt of the fire call. A food supply truck, camp equipment truck and trucks with fire-fighting tools sufficient to equip hundreds of fire-fighters, are kept loaded at the central warehouse plant, and rolled on a moment's notice from the fire dispatcher when a major blaze is threatened. Primary fire dispatching action is taken at the district ranger's headquarters and the central fire dispatcher takes over from that time on by telephone and radio contact clearing through from the scene of the fire. The central warehouse plant and mule depot at Los Prietos have all been built up since 1933.

The use of tank trucks, started in a small way in the early thirties, has greatly increased where roads and truck trails provide access for this type of equipment. Quite often the timely arrival of one of these machines has nipped a starting fire in the bud, or coded it down sufficiently so that the men available could control it before it reached major proportions. The regular tank trucks, large and small, are scattered over the Forest, supplemented during the fire season by slip-on tank units hauled on an ordinary truck bed.

Aerial forest fire patrol, using World War I De Havilland planes, was carried on during 1920 and 1921 by Army pilots and Forest Service observers. The planes were equipped with the crude one-way radio communication

of that time. The fact that the patrolling plane was over a particular area for but a few minutes each day made it a rather weak fire discovery supplement to the permanently-manned lookouts. However, even back in the years 1920 to 1930 airplanes proved of high value for reconnaissance work on major fires.

In the late thirties airplanes came into Los Padres fire control picture in a big way and commenced to be used in parachuting supplies to fire camps. By 1940, this method of delivering tools, food supplies and water to fire camps in rough areas became a regular standard practice supplementing, however, rather than replacing the slower mule transit. In the most rugged areas a miss of a few yards meant that the parachuted supplies might land in the bottom of an almost inaccessible canyon. Some few of the local personnel especially trained in the work became quite proficient in hitting the target.

Fire suppression crews are the outgrowth of the CCC era when small spike camps were established out from the main camps and proved of great value in speeding up initial fire attack. These suppression crews, composed of three or four men are stationed at strategic points and are in reality a spearhead, flying squadron of fire-fighters. The nucleus of the crew is the foreman, who is often also the driver and operator of the tank truck on which the crew travel to a fire. In recent years suppression crews have been composed mainly of 4-F military registrants, teen-age boys and men past military age.

U. S. Weather Bureau mobile units came into use on major fires about fifteen years ago and proved invaluable in predicting the weather conditions which so influence the behavior of Los Padres fires. Weather recording instruments, including the much-used psychrometers, are kept at

lookout and guard stations, and fuel moisture measuring gauges at all ranger stations. The rather elaborate radio setup developed in recent years, not only provides communication from a portable set at some point on the fire line to the main fire camp, but often direct to the desk of the central fire dispatcher or to the automobile of the forest supervisor.

Training of personnel is very much emphasized on Los Padres. First, the forest guard is indoctrinated in the rudiments of his work, then later his training is continued day after day on the job. If climatic conditions allow, district rangers and their control assistants are assembled for a quick session to review the first few fires of the season, in order to pick up any weaknesses in organization or action. A somewhat similar practice on Los Padres Forest in past years is to hold a board of review, often on the ground, of all major fires, at which the progress of the fire and the step by step action taken to suppress it is threshed out. The record of any mistakes uncovered or new and improved work practices developed is promptly communicated to all officers of the unit.

Fire Statistics

Between the first 1898 withdrawal of the forest reserves now comprising Los Padres Forest and 1908 there were relatively few fires and not many major ones. There were also few forest users in those roadless, pre-automobile days. Reconstructing such records as exist, there were not more than an average of 1,000 hunters annually during that period, and possibly twice as many more picnickers using areas close to centers of population.

As population and use of the Forest increased, the number of fires and area burned increased also, 107 fires burning over 27,000 acres between 1908 and 1910. Between 1911 and 1920, a total of 111,876 acres

burned inside the national forest boundaries and during the period 1921 to 1925, approximately one fourth of the total acreage of the Forest was swept by fire.

A study of Los Padres fire records shows that in the face of increasing public use and consequent higher fire risk, a relatively smaller acreage was burned over, even though the protection force did not increase commensurately with the increase of the number of users. On Los Padres there is also a heavy volume of fire risk from transient motorists, not classed as Forest users. During the 15-year period, 1926 to 1940, a total of 428 fires burned over 423,440 acres. These figures, however, include the Matilija Fire of 1932, covering 219,255 acres. Such a fire, while possible, is not now at all probable because of better transportation routes, modern fire-fighting equipment, highly-trained and more strategically-located personnel.

Fire statistics given in this history do not include a large number of fires fought outside the national forest and checked before crossing the boundary line. As a measure of this, fires which actually entered the Forest burned also 41,570 acres of outside lands during 1941 to 1944, inclusive, while the burned area inside the Forest was 15,089 acres.

While a larger protection force was actually authorized during war years, man-power was scarce and the peak number of Los Padres fire protection personnel reached in 1944 was 136 men--and women. Fourteen of this number were employed on the Hunter-Liggett Military Reservation.

During the 20-year period of 1921 to 1940 a grand total of 927,978 acres burned over inside Los Padres National Forest by 679 fires. Ninety of these fires were started by lightning but burned over only 13,152 acres. In these two decades 871,111 acres, or almost 94 per cent of the

total area burned, resulted from blazes occurring during the months of July, August and September which includes the open deer season. Recreational use of the Forest during other periods of the year was pretty well concentrated within improved camp grounds, or in the spring months along the comparatively few fishing streams. During the deer hunting season people were scattered far and wide over the entire national forest area, including sections of the greatest fire risk. The figures are indicative of the fire threat to Los Padres chaparral cover during these critical months. (See Appendix ^H*)

- CHAPTER IX -

POST-WAR PLANS

Helicopters and Jeeps

It goes without saying that post-war years will witness increased use of Los Padres National Forest. Heavier use will inevitably bring greater fire risk and the need for easier accessibility. When fires are raging, trail travel is slow, and the cost of replacing mule trails with even low standard truck trails into the back country is almost prohibitive, to say nothing of their heavy annual maintenance costs. The cooperative use with the Army forces of jeeps during war years for the rescue of airplane crews and other purposes and experiments with helicopter planes, opened up new vistas of transportation possibilities.

In 1944, the Regional Forester inaugurated a detailed study along this line, covering almost one million acres of the ruggedest part of the Forest lying between Highway 399 and the coast section. Within this rough country there are nine entire townships without the slightest vestige of a road. The detailed plan finally worked out calls for the construction of approximately 400 miles of jeep trails connecting with main truck trails or roads and six helicopter stations. Each helicopter station will have a nine-man barracks with hangars for two machines and necessary facilities. While the old original ground plan of motorways and trails would cost seven and one-quarter million dollars to construct, the new aerial plan could be put in operation at a cost of one and one-quarter million dollars.

The Forest Service engineers figured that under the regulation ground

plan the annual maintenance cost of the improvements necessary would amount to \$118,985, while under the proposed helicopter plan the annual upkeep costs would be \$38,304. All in all, over the entire area of approximately one million acres, ground fire control costs figured out to \$.062 per acre and the proposed helicopter method to \$.026 per acre. There is no question of some form of the use of jeeps in forest fire control work after the war is over, and Government experiments with the helicopter plan indicate that this type of equipment may also come into wider use in rugged forest areas. Anyway, the Forest Service is prepared to give it a fair tryout on Los Padres National Forest.

Besides its adaptability for low-flying reconnaissance over going fires, the study disclosed that the helicopter would be adapted for the transport of relief fire-fighters; it would greatly speed up initial attack; that it offered possibilities of delivery of hot food to firefighters without the necessity of maintaining large fire camps, and that it would provide a greater element of safety for men on the fire line--the last-named an important matter in the case of fast-spreading fires. This proposed plan of helicopter use by the Forest Service is based, of course, on heavier carrying capacity of machines which some proponents of this form of transportation believe feasible.

Planned Post-war Development

While helicopter use is perhaps not an immediate post-war probability, in accordance with the general Forest Service plan of post-war development, Los Padres officers have presented to the Regional Forester a lengthy program of much-needed post-war work. Los Padres program was split into two sections, one covering a seven-year--or ultimate-plan of

development, the other called a one-year plan which included only projects that could be immediately undertaken, and for which detailed blueprints were available.

The proposed one-year plan provides for 434 man-years' employment; the intermediate, or three-year plan, 2,400 man-years, while the seven-year plan includes 5,274 man-years of development work. Plans for all the work to be done are based on the present area of public forest land, although it is quite probable that with the general Government program of forest land exchange and acquisition of sub-marginal farm lands, the public forest land area will be appreciably increased.

Los Padres' one-year post-war program includes 140 miles of roadside fire hazard reduction, which, with other fire hazard reduction work, will provide 8,086 man-days' employment. With water playing an ever-increasing important role in fire control, the plan calls for the development of 45 springs with pipe lines and tanks for filling pumper tank trucks, and the construction of 80 additional catchment basins where no living water exists. Other projects are one hundred miles of new telephone lines; the construction of one new primary lookout plant and replacement of six old ones; the construction of twenty suppression crew barracks with their companion service buildings, and four new fire guard station plants where only tents or makeshift shacks are now provided.

During the last years of peace, public campgrounds were taxed to their utmost to provide accommodations for the thousands of visitors. Los Padres immediate post-war plan, therefore, involves improvement of 60 public camps,--a few to be constructed at new sites, extension in area of others, and the addition of facilities where public demand is greatest. Besides water development, stub roads, pastures, parking facilities, and other

improvements, camping conveniences planned to be added include 326 rock, cement and iron Klamath stoves; 42 barbecue pits; 413 of the heavy type camp tables; 78 garbage pits; 9 incinerators, and 139 latrine buildings.

In the matter of post-war jobs, Los Padres Forest can provide an immense volume of worthwhile work on lands owned by the people themselves, lands which will greatly increase in public value as time marches on.

COUNTY	Total County Area (Acres)	Publicly-owned National Forest land (Acres)	No. of Individual Farms	Total Farm Lands (Acres)	Irrigated Lands (Acres)	Farm Production Value 1941	Total Population 1940 Census	Mineral Production 1940
VENTURA	1,188,480	556,878	1,745	158,898	85,883	\$32,606,410	69,685	\$20,647,881
SANTA BARBARA	1,756,800	632,657	1,339	151,463	39,970	\$15,931,522	70,555	\$ 8,045,351
SAN LUIS OBISPO	2,128,640	187,896	1,916	351,369	11,263	\$16,361,000	33,246	\$ 491,329
MONTEREY	2,127,360	316,607	1,999	280,262	102,278	\$32,839,670	73,032	\$ 307,177
TOTALS	7,201,280	1,694,038	6,999	941,992	239,394	\$97,737,602	246,513	\$29,491,738

Note:

(Over 23% of land area in the 4 counties is National Forest land. There are 222,566 acres private land additional inside the National Forest boundaries, making 26.6% of total land area inside Los Padres National Forest.)

APPENDIX B

LOS PADRES NATIONAL FOREST NAMES AND TERMS

("Sp." - Spanish; "I" - Indian)

- Adobe (Sp.) - Sun-dried brick
 Alamitos (Sp.) - Small poplar tree
 Aliso (Sp.) - Alder tree
 Alta or Alto (Sp.) - High
 Angeles (Sp.) - Angels
 Antonio (Sp.) Anthony
 Arroba (Sp.) 25 pounds
 Arroyo (Sp.) - Creek
 Asuncion (Sp.) - Ascension
 Atascadero (Sp.) - Deep, miry place
- Bautista (Sp.) - Baptist
 Benito (Sp.) - Benedictine friar or nun
 Blanca (Sp.) - White
 Bota (Sp.) - Leather bag - usually wine bag
 Bueno (Sp.) - Good
- Californios (Sp.) - Mexican-Californians
 Caliente (Sp.) - Hot
 Camino (Sp.) - Road
 Canada (Sp.) - Valley
 Camuesa (Sp.) - (Corrupted gamuza) Buckskin
 Carpenteria (Sp.) - Carpenter
 Cerro (Sp.) - Hill
 Chaparral (Sp.) - Heavy brush
 Chuchupate (I) - Yellow flower
 Cielo (Sp.) - High or Sky
 Coche (Sp.) - Pig
 Cumbre (Sp.) - Crest; summit
 Cuesta (Sp.) - Slope or grade
 Cuyama (I) - Petrified oyster shell
- Fanega (Sp.) - 100 pounds
 Figueroa (Sp.) - Cactus
- Gaviota (Sp.) Seagull
 Goleta (Sp.) - Schooner
 Gorda (Sp.) - Fat; broad
- Hacienda (Sp.) - Formal garden
 Huero (Sp.) - Empty; void
- Ito (Sp.) - Small

Jolon (Sp.) - Valley of dead oaks
 Juan (Sp.) - John
 Juncal (Sp.) - Marshy, rush-covered ground

Larga (Sp.) - Long
 Lomas (Sp.) - Grounds
 Lompoc (I) - Shell mounds or village
 Los (Sp.) - The
 Los Padres (Sp.) - The Fathers
 Lucia (Sp.) - Lucy
 Luis (Sp.) - Louis

Madre (Sp.) - Mother
 Madera (Sp.) - Wood; timber; lumber
 Madulce (Sp.) - Strawberry
 Mantanza (Sp.) - Slaughter ground
 Manzana (Sp.) - Apple
 Marcos (Sp.) - Mark
 Mariposa (Sp.) - Butterfly
 Miguel (Sp.) - Michael
 Miguelito (Sp.) - Little Michael
 Milpitas (Sp.) - Gardens or fields
 Mono (Sp.) - Monkey or mimic
 Morro (Sp.) - Bluff or headland

Nacimiento (Sp.) - Birth; The Nativity
 Nojoqui (I) - Honeymoon
 Noroeste (Sp.) - Northeast
 Nuestra (Sp.) - Our
 Obispo (Sp.) - Bishop
 Ojai (I) - Nest
 Ojitos (Sp.) - Small eyes
 Oso (Sp.) - Bear
 Ozena (Sp.) - A sore of the nostrils

Padre (Sp.) - Father; priest
 Paso (Sp.) Pass
 Paula (Sp.) - Pauline
 Piedra (Sp.) - Rock or stone
 Pinos (Sp.) - Pines
 Pismo (I) - A place to fish
 Pojo (Sp.) - Louse (corrupted "piojo")
 Potrero (Sp.) - Pasture
 Pozo (Sp.) - Well; pond
 Presidial (Sp.) - Military
 Prietos (Sp.) - Dark color
 Purificacion (Sp.) - Making pure

Ranchero (Sp.) - Rancher
 Rancho (Sp.) - Ranch
 Refugio (Sp.) - Refuge; retreat
 Reliz (Sp.) - Landslide
 Riata (Sp.) - Lasso or halter

Rico (Sp.) - Rich
 Rincon (Sp.) - Lurking place or corner
 Robles (Sp.) - Oaks
 Rodeo (Sp.) - Livestock roundup

 Salinas (Sp.) - Salt Marsh
 Salsipuedes (Sp.) - Get out if you can
 San or Santa (Sp.) - Saint
 Santa Cruz (Sp.) - Holy Cross; saint's cross
 Seco (Sp.) - Dry
 Senor (Sp.) - Sir or mister
 Senorita (Sp.) - Unmarried woman
 Sespe (I) - Village
 Sierra (Sp.) - Sawtooth range
 Sisar (Sp.) - Pilfer
 Soledad (Sp.) - Lonely place
 Sur (Sp.) - South; south wind

 Tasejara (Sp.) - Meat-drying place (corrupted spelling)
 Terecula (I) - Rising sun
 Temscal (I) - Sweathouse
 Tejon (Sp.) - Badger
 Topa (I) - Gopher

 Vaquero (Sp.) - Cowboy
 Ventana (Sp.) - Window
 Verde (Sp.) - Green
 Venta (Sp.) - Sale
 Ventura (Sp.) - Fortune
 Visitadores (Sp.) - Visitors

 Ynez (Sp.) - Agnes

 Zaca (Sp.) - Large Leather bag

Forest Reserve and National Forest
Area Changes, Los Padres National Forest

UNIT AND ACTION	DATE	PRESIDENT	ACRES
<u>Pine Mt. & Zaca Lake Forest Reserve</u>			
Proclamation <u>creating</u> ,	March 2, 1898	Wm. McKinley	1,144,594
" <u>adding</u> ,	June 29, 1898	" "	500,000
			<u>1,644,594</u>
<u>Santa Ynez Forest Reserve</u>			
Proclamation <u>creating</u> ,	Oct. 2, 1899	" "	145,000
<u>San Luis Obispo Forest Reserve</u>			
Proclamation <u>creating</u> ,	June 25, 1906	T. Roosevelt	365,350
" <u>eliminating</u> ,	July 1, 1908	" "	7,360
(Name changed to San Luis Forest Reserve)			<u>357,990</u>
<u>Monterey Forest Reserve</u>			
Proclamation <u>creating</u> ,	June 25, 1906	T. Roosevelt	335,495
" <u>adding</u> ,	Jan. 9, 1908	" "	25,105
			<u>360,600</u>
<u>Pinnacles Forest Reserve</u>			
Proclamation <u>creating</u> ,	July 18, 1906	" "	14,108
<u>San Benito National Forest</u>			
Proclamation <u>creating</u> ,	Oct. 26, 1907	" "	140,069
Executive Order <u>consolidating</u> three immediately above as			
Monterey National Forest	July 2, 1908	" "	
Proclamation <u>adding</u> ,	Dec. 12, 1910	Wm. H. Taft	7,690
" <u>eliminating</u>			
Pinnacles National Forest and other areas,	Dec. 12, 1910	" "	21,527
Proclamation <u>eliminating</u> ,	Sept. 5, 1916	Woodrow Wilson	140,427
<u>Santa Barbara Forest Reserve</u>			
Proclamation <u>combining</u> Pine Mt. & Zaca Lake & Santa Ynez Reserves	Dec. 22, 1903	T. Roosevelt	
Proclamation <u>adding</u> ,	Dec. 22, 1903	" "	48,729
" " " "	Oct. 3, 1906	" "	144,144
Executive Order <u>changing</u> name of forest to Santa Barbara National Forest	July 1, 1908	" "	
Executive Order <u>adding</u> ,	July 1, 1908	" "	53,720
" " <u>transferring</u> to Angeles National Forest	July 1, 1908	" "	8,640
Proclamation <u>adding</u> San Luis National Forest to Santa Barbara National Forest	June 8, 1908	T. Roosevelt	357,990

UNIT AND ACTION	DATE	PRESIDENT	ACRES
Proclamation <u>eliminating,</u>	June 9, 1913	Woodrow Wilson	86,634
" <u>eliminating,</u>	June 15, 1914	" "	333,240
Executive Order <u>adding</u> Monterey N. F. to Santa Barbara N. F.	Aug. 18, 1919	" "	360,464
Proclamation <u>eliminating,</u>	Sept. 30, 1925	Calvin Coolidge	4,289
" <u>transferring to</u> Angeles National Forest	Sept. 30, 1925	" "	265,538
<u>Adjusted area,</u> Santa Barbara N.F.	Dec. 31, 1925		2,018,814
Executive Order <u>changing name to</u> Los Padres National Forest	Dec. 3, 1938	F. D. Roosevelt	
<u>Adjusted surveys gives gross area</u>	June 30, 1944		2,016,088

APPENDIX D

Grazing Use, Los Padres National Forest
1910 to 1944
Average Annual Use During Periods Shown

PERIOD	No. of Permittees	No. of Cattle and Horses	No. of Sheep and Goats	No. of Hogs
1910 to 1915, incl.	285	10,913	6,903	285
1916 to 1920, "	252	9,614	6,100	158
1921 to 1925, "	219	9,549	5,457	54
1926 to 1930, "	182	8,798	4,278	None
1931 to 1935, "	144	6,215	3,283	None
1936 to 1940, "	148	5,897	44	2
1941 to 1944, "	141	5,978	25	None

Ranger Districts, Los Padres National Forest

-1944-			GROSS AREA (ACRES)
NAME	GENERAL LOCATION	DISTRICT HEADQUARTERS	
Monterey	All of National Forest in Monterey County	King City, California	360,494
San Luis	Santa Maria River Northwest to Asuncion	San Luis Obispo, Calif.	192,081
Santa Maria	Santa Maria River Southeast to Central San Rafael	Santa Maria, California	295,685
Santa Barbara	Santa Ynez Range & south slopes of San Rafael	Los Prietos Ranger Sta., 22 miles from Santa Barbara	291,545
Cuyama	North slopes San Rafael east to headwaters Cuyama River	Cuyama Ranger Station in center of Cuyama Valley (Maricopa, Calif.)	368,373
Ojai	North of Santa Clara and Ojai Valleys	Ojai, California	268,763
Mt. Pinos	Frazier Mt., Mt. Pinos and Upper Piru Creek sections	Chuchupate Ranger Station (Frazier Park, California)	239,147

TOTAL GROSS AREA, Los Padres National Forest - - - - 2,016,088

Transportation and Structural Improvements
 Los Padres National Forest as of June 30,
 -1944-

CLASS OF PROJECT	MILES	NUMBER
Forest Highways and Truck Trails	1,390.7	-
Trails, horse travel	2,224	-
Dwellings	-	47
Companion structures	-	41
Water & Sanitary systems	-	70
Offices	-	5
Shops	-	14
Warehouses and Storehouses	-	38
Telephone Lines	823	-
Lookout Houses & Towers	-	25
Fire Control Water Facilities	-	28
Firebreaks	115.6	-
Major Improved Camp grounds & picnic areas	-	108
Range Fences	44.3	-
Improved stock driveways	5	-
Range Water Development	-	103

APPENDIX G

Special Use Permits in Effect on Los Padres
National Forest, 1910 - 1944

Period	Average Number of Permits in Effect Annually	
	Residences	Other Special Use Permits
1910 to 1915	3	316
1916 to 1920	29	349
1921 to 1925	81	449
1926 to 1930	136	355
1931 to 1935	149	360
1936 to 1940	183	385
1941 to 1944	198	393

APPENDIX H

LOS PADRES NATIONAL FOREST FIRE RECORD BY PERIODS
- 1908 to 1944 -

Period	:Number of fires:(1)			:Total area :burned inside :national :forest (acres): (2)	:Total number :of forest users: :during period (3)	:Average :number :of :men :(4)
	:Man- :caused	:Light- :ning	: Total			
1908 to 1910	: 98	: 9°	: 107	: 27,051	: 6,000°	: 14
1911 to 1915	: 212	: 18°	: 230	: 31,995	: 21,000°	: 18
1916 to 1920	: 300	: 15°	: 315	: 111,876	: 75,000°	: 23
1921 to 1925	: 239	: 12	: 251	: 504,538	: 148,507	: 28
1926 to 1930	: 106	: 5	: 111	: 93,193	: 342,920	: 32
1931 to 1935	: 129	: 11	: 140	: 284,524	: 481,790	: 40
1936 to 1940	: 125	: 52	: 177	: 45,723	: 963,560	: 64
1941 to 1944	: 279	: 6	: 285	: 15,089	: 621,950	: 66

°Estimated.

(1) Does not include fires entirely outside national forest.

(2) Includes only area burned inside national forest.

(3) Does not include through travel or casual visitors.

(4) Short term forest guard services express in man-years.

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In the compilation of this history full use has been made of the records of the California Regional Office of the Forest Service at San Francisco and of the Supervisor's and Rangers' offices of Los Padres National Forest. The compiler has interviewed several of the old time forest rangers yet alive, and gratefully acknowledges the information given by the supervisor of the Forest and other forest officers at present serving thereon, particularly that furnished by Forest Engineer Edwin H. Wait. A complete bibliography of material drawn upon would impose too voluminous a space burden on this modest work. The list following represents but a few of the references consulted.

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