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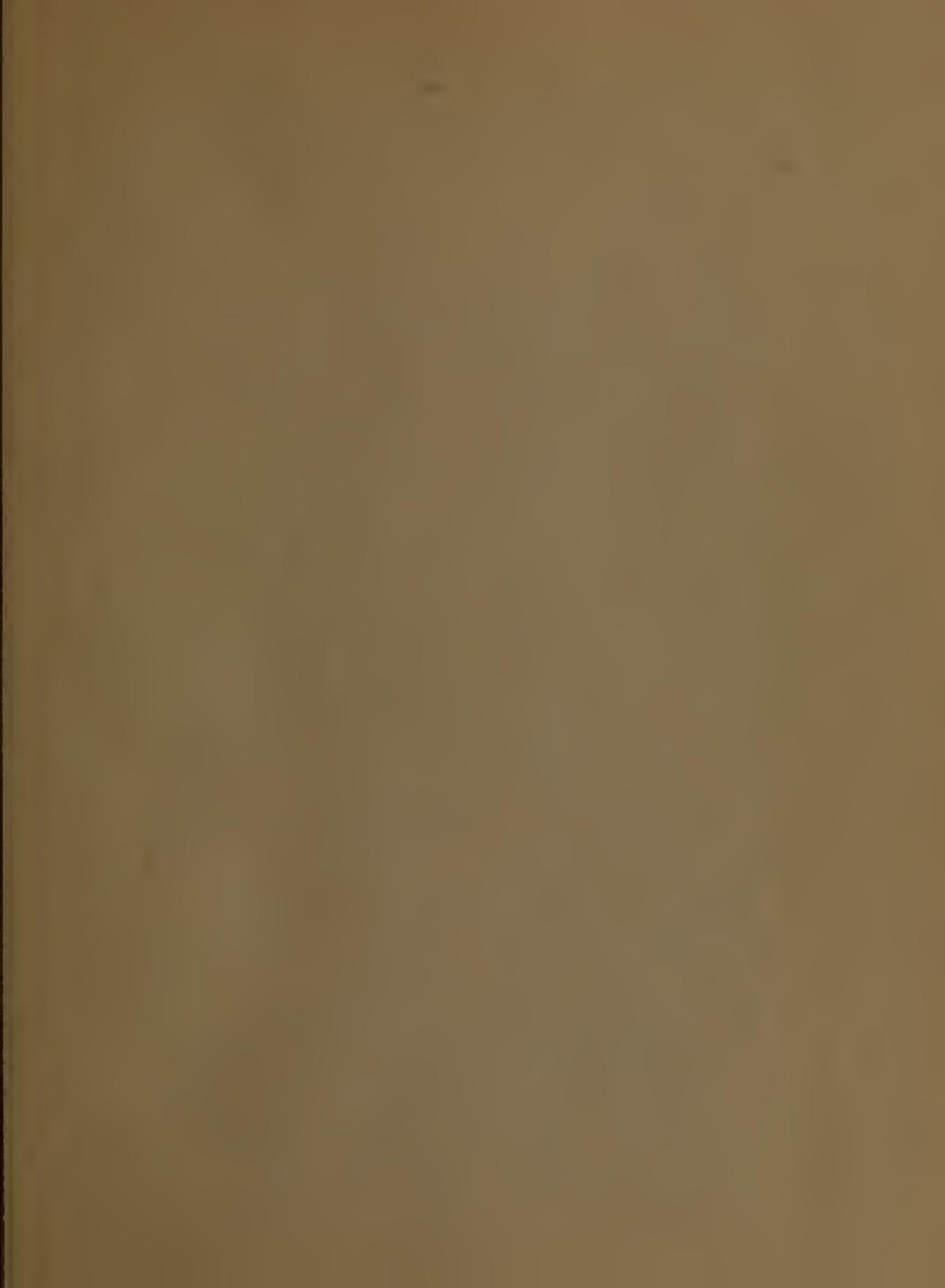
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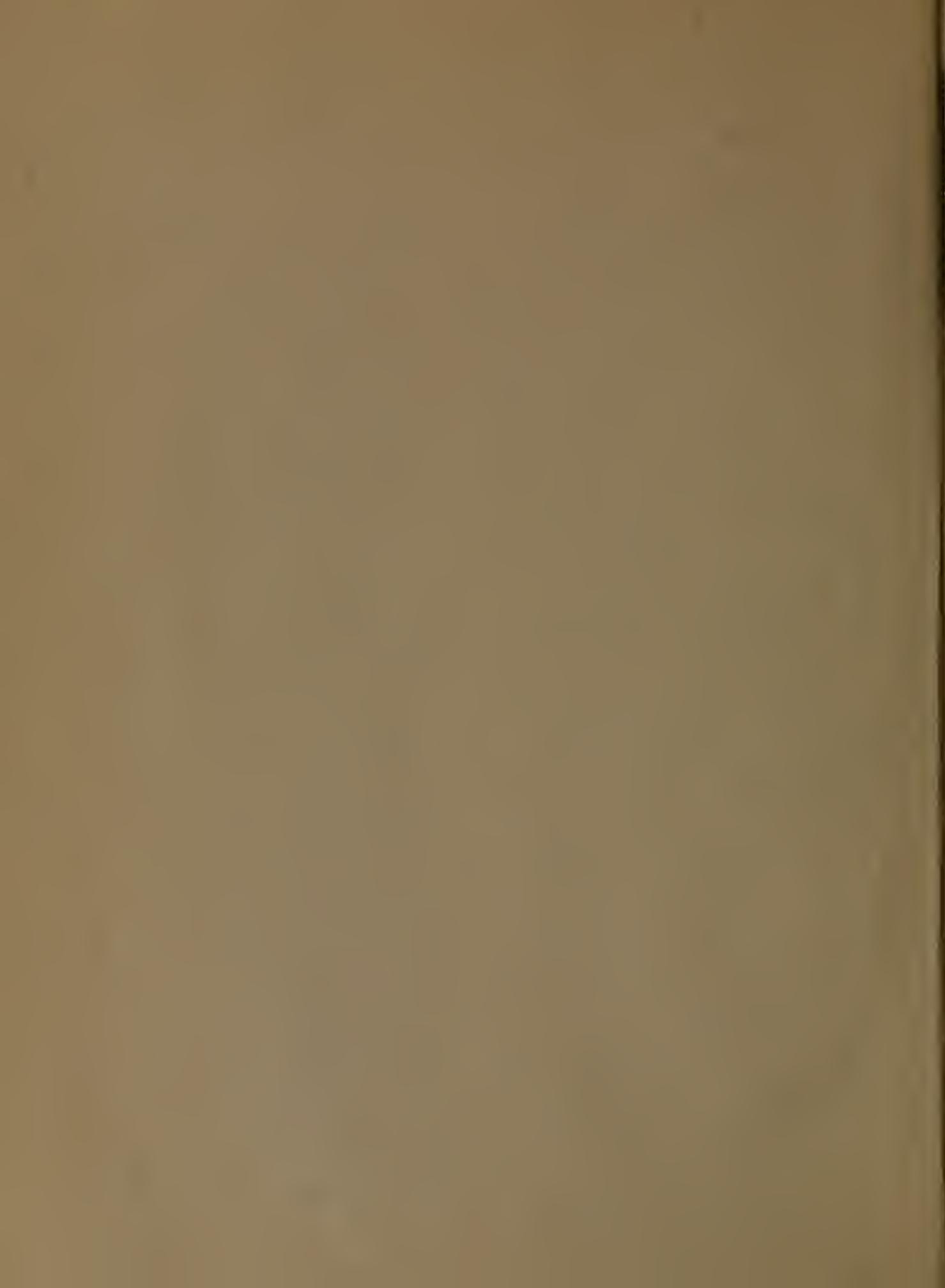
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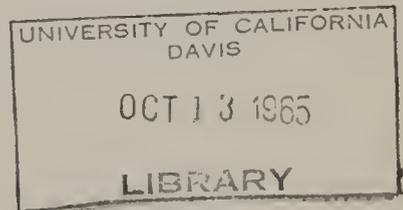
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BULLETIN No. 117-3

LAKE DAVIS
RECREATION DEVELOPMENT PLAN

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JULY 1965



HUGO FISHER
Administrator
The Resources Agency

EDMUND G. BROWN
Governor
State of California

WILLIAM E. WARNE
Director
Department of Water Resources







GRIZZLY VALLEY, November 1963

State of California
THE RESOURCES AGENCY
Department of Water Resources

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DEPARTMENT OF WATER RESOURCES

P. BOX 388
SACRAMENTO

May 20, 1965

Honorable Edmund G. Brown, Governor
and Members of the Legislature
of the State of California

Gentlemen:

Bulletin No. 117-3, entitled "Lake Davis, Recreation Development Plan", presents the recreation development plan which I have approved for the full realization of the recreation potential of Lake Davis which will be impounded behind Grizzly Valley Dam.

Grizzly Valley Dam was authorized for construction as a feature of the State Water Project by the Statutes of 1957. Lake Davis, located near Portola in Plumas County, will provide water for urban use, recreation, and fish and wildlife enhancement. It is anticipated that the initial recreation facilities will be completed concurrently with the dam in the fall of 1966. Initial onshore facilities are described in detail and recommendations are made for the appropriation of funds needed for their construction.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "W. E. Warne", is written over the typed name "Director".

Director



ACKNOWLEDGMENTS

A preliminary report on the recreation development plan for Lake Davis was prepared by the Recreation Contract Services Unit, Division of Beaches and Parks, Department of Parks and Recreation under Interagency Agreement No. 253372 using engineering and economic data supplied by the Department of Water Resources and fisheries data supplied by the Department of Fish and Game. The preparation of the report was coordinated with the Department of Public Health and the U. S. Forest Service.

The report, transmitted to the Department of Water Resources as an official report of the Department of Parks and Recreation, has been slightly modified to conform to Department of Water Resources publication requirements. The modifications have been coordinated with the Department of Parks and Recreation, and the report is being issued as Bulletin No. 117-3 of the Department of Water Resources and as Appendix D to Bulletin No. 128, "Lake Davis Advance Planning Report".

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

EDMUND G. BROWN, Governor
HUGO FISHER, Administrator, The Resources Agency
WILLIAM E. WARNE, Director, Department of Water Resources
ALFRED R. GOLZE', Chief Engineer
JOHN M. HALEY, Acting Assistant Chief Engineer

DELTA BRANCH

Carl A. Werner Branch Chief
M. Guy Fairchild Chief, Planning Section

This bulletin was prepared under the direction
of

Walter L. Terry Senior Engineer, Water Resources
Richard W. Kretsinger . . Associate Engineer, Water Resources

by

Paul R. Meier Recreation Planner III
Department of Parks and Recreation
Recreation Contract Services Unit

and

William M. Kier Fishery Biologist III
Department of Fish and Game
Contract Services Unit

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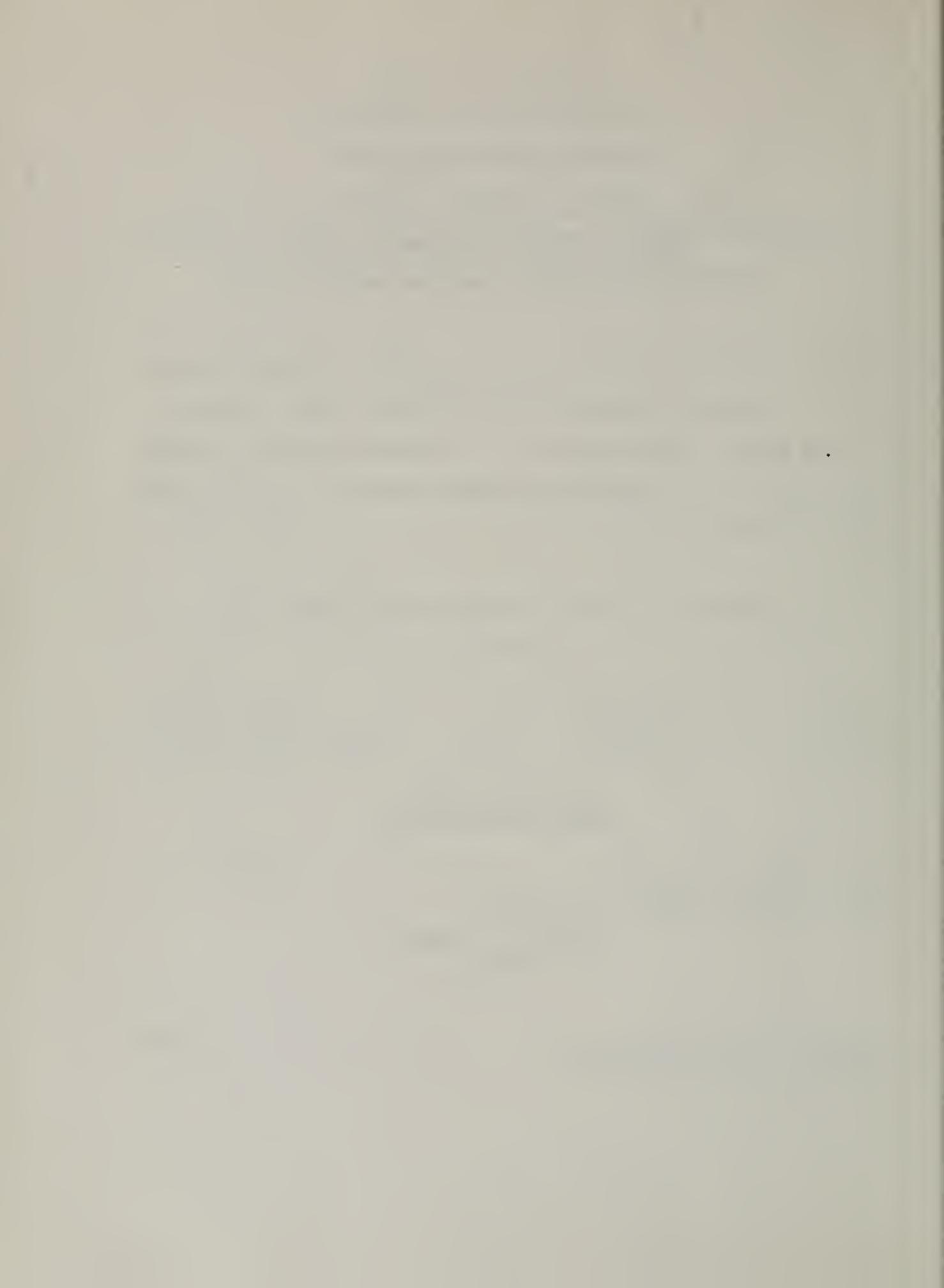
NORRIS POULSON, La Jolla

MARION R. WALKER, Ventura

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WILLIAM M. CARAH
Executive Secretary

ORVILLE L. ABBOTT
Engineer



AUTHORIZATION

Grizzly Valley Reservoir, now officially named Lake Davis, one of five Upper Feather River reservoirs that are features of the State Water Project, is authorized by California Water Code Sections 11260 and 12934. Sections 345 and 346 specify that the Department of Water Resources shall plan recreation developments associated with state-constructed water projects and acquire sufficient lands to implement the development of recreational facilities.

This report was prepared by the Department of Parks and Recreation for the Department of Water Resources in conformity with Interagency Agreement No. 253372. This agreement enables the Department of Water Resources to utilize the professional services of recreation planners and landscape architects to fulfill the intent of Section 345.

PURPOSE OF THE REPORT

The purpose of this report is to present a recreation development plan for Lake Davis. Supporting information is presented relating to a budget request by the Department of Water Resources for an appropriation to implement the construction of recreation facilities needed to accommodate the expected recreating public.

RECOMMENDATIONS

The estimated cost of constructing the initial recreation facilities is \$700,500. The Legislature has appropriated \$220,000 in fiscal year 1964-65. It is recommended that the Legislature appropriate the additional sums of \$224,700 for expenditure in 1965-66 and \$255,800 for expenditure in 1966-67 to complete the initial recreation developments.

RECREATION PLANNING RESPONSIBILITIES

The Department of Water Resources' recreation planning responsibilities fall into three general categories, enumerated as follows:

1. Plan recreation developments to promote the full recreation potential of each state water facility and acquire the land necessary to implement these recreation plans.

2. Submit to the Legislature a report which summarizes the plans and specifies the amount of funds required for the recreation developments.

3. Approve the design, construction, operation, and maintenance of public recreation facilities, and the management of project lands and water surfaces for recreational use to ensure that these functions will not defeat or impair the orderly project operation for its other authorized purposes.

The Department of Water Resources has completed an office report entitled "Recreation Land Use and Acquisition Plan, Grizzly Valley Reservoir, November 1963". This report was approved by the Departments of Finance and General Services. It will be a future and continuing responsibility of the Department to observe uses of the reservoir waters and adjacent lands to insure that other project purposes are not impaired.

SUMMARY

California's population has increased tremendously in recent years and all indications point toward a continuing increase in the future. The demand for outdoor recreation has grown at an even faster rate than has our population. In many areas, the supply of outdoor recreation facilities has fallen far short of meeting the demand even though public agencies and private enterprise have embarked upon accelerated programs to expand available facilities. Water-associated recreation has assumed a major portion of the increase of outdoor recreation, and water-associated facilities at many of our existing water bodies are already overcrowded and fast approaching the saturation point in recreation use.

The Legislature recognized the statewide importance of outdoor recreation and directed that recreation be given full consideration in planning for state water projects. Recreation was specified as a project purpose in the publication of the Division of Water Resources entitled "Program for Financing and Constructing the Feather River Project as the Initial Unit of The California Water Plan" dated February 1955, which was incorporated by reference in the legislation that authorized the Upper Feather River units of the Feather River Project.

Other projects authorized by this legislation were Frenchman, Antelope Valley, Abbey Bridge, and Dixie Refuge Dams and Reservoirs. Frenchman Dam was completed in October 1961, while Antelope Valley Dam was completed in the fall of 1963. Construction of the other authorized units will be scheduled at later dates.

The Upper Feather River Basin, in northeastern California, is a vacation area for large numbers of recreationists from all parts of California and western Nevada. To a minor extent, occasional more distant visitors will also enjoy facilities in this locale. Plumas National Forest experienced over a million man-days of general recreation use within its borders in 1963. Origin studies of anglers using some of the lakes and streams, indicate that a major portion of the anglers reside in areas of the State outside the Feather River Basin. A similar pattern of origin applies to deer hunters. The area's natural resources continue to lure more and more vacationists, hunters, and fishermen. Lake Davis will be located in the northeasterly portion of the basin and will be an additional attractive feature of this already popular vacation area.

Lake Davis is to be constructed for the purposes of recreation, domestic water supply, fisheries enhancement, and possibly irrigation at some future date, based upon local demand.

The location and physical features of Lake Davis are recreation-oriented. The lake will be located in Plumas County at an elevation of 5,775 feet, a short distance north of Portola and State Route 70. It will be accessible by an improved county road from State Route 70 and will have a surface area of 4,000 acres and about 32 miles of pine-timbered shoreline. The project operating schedule will provide a relatively stable water level for development of the onshore recreation facilities and an excellent habitat for lake trout fishery. The lake releases will provide adequate flow for developing a good downstream trout fishery. Private land surrounding the lake is being acquired for development and protection of the recreation resources.

The recreational pursuits which will be available at this lake include camping, picnicking, fishing, hunting, water skiing, swimming, boating, sightseeing, and such other outdoor pursuits as are compatible with other project purposes and State Park Commission policies. The initial recreation development recommended for Lake Davis consists of approximately 125 camp and 25 picnic units, a potable water supply, sanitary facilities, boat launching ramp, parking areas, and access and circulation roads. This development will accommodate more than 800 users per day, excluding fishermen not using the boat ramp. The cost of developing these initial recreation facilities is estimated to total \$700,500.

The combination of location, natural features, and planned recreation developments will make Lake Davis a highly desirable recreation area. Recreation enhancement, measured in terms of visitor-days of use, is calculated by determining the difference in recreation use predicted with and without the project. It is anticipated that due to the lake, the local recreation use will increase from 1,350 visitor-days per year without the project to 79,000 visitor-days per year by 1970, an increase of 77,650 visitor-days per year. By 2020, a net increase of 628,000 visitor-days per year is expected.

The Davis-Dolwig Act (Water Code Sections 11900 through 11925) designates the Department of Parks and Recreation as the agency responsible for design, construction, operation, and maintenance of the recreation facilities. Present plans anticipate subcontracting the operation and maintenance functions on state-owned lands to the County of Plumas, which will probably contract with the Plumas National Forest for fulfillment of these services, as has been done at Frenchman Lake. It is anticipated that recreation developments will occupy national-forest-administered land as well as state lands purchased for recreation purposes.

CONCLUSIONS

As a result of the Department's studies, it is concluded that:

1. Lake Davis will possess high recreational potential and will receive heavy use.

2. Lake releases will significantly enhance the trout fishery in Big Grizzly Creek.

3. Recreationists from areas throughout the State and western Nevada will use the lake and the downstream area.

4. The lake and appurtenant recreational facilities will make a significant contribution toward meeting the statewide outdoor recreation demand.

5. The initial recreation facilities presented in this plan are ample to provide for the recreation-use demand for the first decade of operation. Thereafter, the construction of additional developments must be staged to satisfy continued increase in use.

6. Sufficient rights-of-way to and along Big Grizzly Creek from the dam to the Middle Fork Feather River must be acquired to insure future public access.

INTRODUCTION

In the wake of California's population boom, an unprecedented demand for recreation facilities has become evident. New and better highways, faster and more comfortable automobiles, higher wages, and more leisure time -- all have contributed toward a greater opportunity for travel and outdoor recreation. People have been responding to this opportunity in ever increasing numbers, flocking to the forest, mountains, lakes, rivers, and seashore so that in many areas existing recreation facilities are now inadequate. Recreation use of some areas has increased to a point where the natural attractiveness is deteriorating from unwise and unguided use. Public agencies have expanded outdoor recreation facilities as rapidly as possible while private enterprise has increased its tempo of recreation development. In spite of these combined efforts, the outdoor recreation demand has outpaced the supply of facilities.

The State Water Project facilities comprising The California Water Plan offer tremendous recreation potential, capable of alleviating a portion of the existing deficiency. The development of the initial recreation facilities of Lake Davis and the development of recreation facilities at other units of the State Water Project is a big factor in filling the demand for more outdoor recreation.

DESCRIPTION OF PROJECT AREA

Location

Lake Davis is an integral part of the State's water development program of the Upper Feather River Basin. This basin is located in the northern Sierra Nevada in the northeastern portion of the State. Plate 1, "Vicinity Map, Lake Davis, Feather River Basin", shows the location of the basin in the State and the project area within the basin. Also shown are the other existing and authorized State Water Facilities, pertinent natural features, and access routes through the basin.

Lake Davis is located in Grizzly Valley about 8 miles north of Portola in the eastern part of Plumas County, in a relatively obscure, mountainous, forested portion of Big Grizzly Creek.

Access

Access is an important consideration in the full recreation development of an area. The Upper Feather River Basin is well supplied with major highways as is shown in Plate 1. U. S. Highway 99E traverses the Sacramento-San Joaquin Valleys to the west of the basin, while U. S. Highway 395 runs north and south along the east side of the Sierra Nevada. State Route 70, a major east-west highway

of the State bisects the basin and connects the two north-south highways. State Highway 89 joins U. S. Highway 40 (Interstate 80) at Truckee, passes north to intersect State Route 70 near Blairsden, and continues on to merge with State Highway 36 near Lake Almanor. These highways provide the basin with good access from outside areas.

Local roads within the Feather River Basin form a network that provides access to much of the basin except the deep gorges along the Middle Fork and South Fork of the Feather River.

From within the Feather River Basin, Lake Davis can be reached by four good roads. Access from the south is via Big Grizzly Creek and Willow Creek Roads. From Genesee Valley, access is via the Walker Mine Road (Little Grizzly Creek) and the Genesee-Beckwourth Road via Bagley Pass. All of these routes are a part of a network of graded dirt roads maintained by the U. S. Forest Service and Plumas County. Lake Davis' proximity to existing paved roads varies from 7 to 30 miles, depending upon the access route chosen. The budget currently before the Legislature provides funds for the first phase of improvement of the existing county road along Big Grizzly Creek from State Route 70 to the lake during 1965-66. The second and final phase of the road improvement will be accomplished during 1966-67. The local road complex is shown on Plate 1.

There are no commercial airports within the basin, but light aircraft are accommodated by good private or county airstrips at Beckwourth, and Quincy. It is anticipated that these airstrips will be important to the air traveler desiring to use this reservoir's recreation facilities.

Topography and Vegetation

The Upper Feather River Basin presents interesting variations of vegetation and topography. A variety of scenic features include broad panoramas of semidesert, forest-clad mountain slopes, valleys, farm lands, and rockbound gorges of the Feather River. The physical features, though variable, are generally characteristic of many areas of the basin.

The eastern portion of the basin is largely of the semidesert type exhibiting the Great Basin influence. Typical of this area are the broad, open vistas of sagebrush and grass lands surrounded by hills and mountains covered by a sparse growth of juniper and pine.

The northerly and westerly portions of the basin, situated in a zone of higher rainfall, are mountainous, more rugged and more typical of the Sierra Nevada. Mountain slopes are clothed in coniferous forests of commercial quality with streamside stands of willow, alder, cottonwood and aspen, while meadow and valley floors support a turf of perennial grasses and herbs used extensively for grazing.

The southerly portion is extremely rugged and is characterized by long, high, timbered ridges converging toward the southwest. Between these ridges are the main watersheds which slope down and westerly to drop sharply into the long, deep gorges through which the South and Middle Forks of the Feather River flow toward their confluence east of the town of Oroville.

Grizzly Valley's elevation of over 5,000 feet above sea level categorizes this area as a mountain meadow. The terrain adjacent to the shoreline of Lake Davis is comparatively flat and is ideal for recreation development, especially the long, peninsular fingers which will extend into the lake. These pine-and-sagebrush-covered fingers will make available many interesting miles of shoreline not normally found at reservoirs. This land configuration, combined with relatively flat terrain, will provide conditions extremely favorable for recreation use. The valley floor is covered with grass and sagebrush, while the surrounding slopes are forested with open stands of ponderosa and jeffrey pine.

Climate

The climate of the Upper Feather River Basin exhibits considerable variations. In general, the climate can be characterized as having summers which are warm and dry, while the winters are comparatively cold. Most of the

precipitation falls in the winter, with heavy snowfalls experienced in some areas. Annual precipitation varies from about 15 inches in the eastern portion of the basin to as high as 80 inches in the westerly, more mountainous areas.

Summer weather in the Lake Davis area is highly suited to out-of-doors activities. Days are sunny and warm, nights are cool. Humidity is very low during the summer with precipitation limited to an occasional shower. The warm, dry, sunny days will attract water-associated recreation use throughout the summer. Midday temperatures in the 80's are common during the summer. Cool nights permit comfortable sleeping and reduce the problem of insect annoyance.

The winters are relatively severe. Temperatures frequently drop below freezing during several months of winter, while frosts are not uncommon in any month of the year. A snowpack accumulates on the higher elevations but only to a minor extent in Grizzly Valley. A low temperature of -28° Fahrenheit has been recorded nearby at both Portola and Quincy.

Recreation

Lumber and livestock have been basic economies of the Feather River Basin for many years. Recently, however, recreation has become an increasingly important aspect of the local economy. Approximately 70 percent of the basin is within national forest boundaries. Much of the increase

of recreation importance is due to the multiple land use policies adopted by the U. S. Forest Service, whereby recreation facilities are provided and recreation use encouraged. The trend toward increased use in outdoor recreation is shown in Appendix A, "Outdoor Recreation Trend in California". Plumas National Forest has recorded an increase in recreation use from 66,345 visitors in 1950 to 507,600 visitors in 1963 as shown in Appendix B, "Recreation Use in Plumas National Forest".

The native resources of mountain scenery, fish and game, combined with large areas of suitable and accessible publicly owned land, make the Upper Feather River Basin a highly desirable recreation area. Hunters, anglers, and vacationers from all parts of the State use the area's natural resources. A field survey by the Department of Fish and Game in 1956 showed that in the Grizzly Valley area as many as 70 percent of the hunters came from outside the local counties of Lassen, Plumas, and Sierra. Subsequent surveys of lake and stream anglers show all metropolitan areas of the State represented among the persons contacted. A survey conducted during the 1963 recreation season at Frenchman Lake, located some 15 miles to the east, depicts origin and type of use at Frenchman Lake on Little Last Chance Creek. The results of that survey are shown on Plate 2 entitled "User Origin of Recreationists Visiting Frenchman Lake, 1963", and in Appendix C, "Recreation Use

Survey, Frenchman Lake, 1963". It is reasonable to assume that recreation use at Lake Davis will be very similar to that at Frenchman Lake because of the similarity of location, access, and setting.

Very little private forest land is being managed primarily for recreation; however, these lands are important in the total recreation aspect for frequently they furnish a portion of the area needed for hunting and fishing. Many private business enterprises such as motels, stores, lodges, and resorts are dependent in a large measure upon expenditures by nonresident recreationists patronizing both public and private recreation facilities and developments.

Logging and grazing have been the predominant uses of Grizzly Valley and its surrounding area. There has been little emphasis on recreation. Deer hunting provides the most intensive recreation use in the area. The small size and ephemeral nature of most of the valley's streams has precluded significant angling use.

Big Grizzly Creek below the damsite receives appreciable angling use during the early season when the streamflow is favorable. The Department of Fish and Game maintains a trout planting program which extends down to State Route 70. This reach of stream is paralleled by a good graded dirt road, and is easily accessible to anglers. The greater portion of the riparian land in this reach of the stream, however, is in private ownership and in the

process of subdivision. Public access along both sides of the stream will be assured by the acquisition of rights-of-way along the stream from the dam to the confluence with the Middle Fork Feather River. Access roads to the creek and parking areas will be provided.

Increased future recreational use of Grizzly Valley and Big Grizzly Creek depends almost entirely upon the construction of Lake Davis. This lake will create a water-associated recreation resource in an area where recreation opportunity is now limited. In addition, the controlled flow releases from the lake will considerably increase the angling potential of Big Grizzly Creek below the dam by maintaining better fishery habitat, which in turn can support a larger fish population.

LAKE DAVIS

General Features

Lake Davis will be located on Big Grizzly Creek approximately 7 miles north of State Route 70. The waters from this lake will inundate virtually all of Grizzly Valley.

The dam will be an earthfill structure, 115 feet high, with a crest length of 850 feet and a concrete-lined spillway. The outlet works will extend through the base of the dam and will be used to release water into a pipeline for domestic use and for controlled streamflows in Big Grizzly Creek.

The storage capacity will be 83,000 acre-feet and the surface area will be 4,000 acres at normal pool elevation of 5,775 feet. The major axis of the lake extends northwesterly from the dam. Because of the topography, numerous coves and peninsulas will cause the southwesterly shoreline to be extremely irregular. The 32 miles of the lake's shoreline are fairly well covered by a mantle of pine trees which extends to the water line. Most of the lake will be comparatively shallow, with a maximum depth of about 90 feet near the dam. The stream gradient in the greater portion of the lake bottom is comparatively flat, resulting in considerable shallow water. On windy days,

the open expanse of water could build up a wave action which might tend to reduce or curtail water surface activities; however, it is anticipated that there would be no significant detrimental effect on the overall recreation use.

Smith Peak Game Refuge

The Smith Peak State Game Refuge overlaps into the southwesterly portion of the lake area as shown on Plate 3. Approximately 2,100 acres of the refuge would be located within the zone planned for public recreation. Proposed camping areas within the refuge boundary will be used by hunters in the fall for their base camps. Fish and game code regulations relating to state game refuges require hunters to have special permits to possess hunting equipment or game within a game refuge. This could result in patrol and public relations problems for the Department of Fish and Game. To prevent these problems from arising, the Department of Water Resources has recommended that the northerly game refuge boundary be relocated to coincide with the U. S. Forest Service roads designated 24N07 and a portion of 24N10 which are located on the southwesterly side of Lake Davis as shown on Plate 3. Assembly Bill No. 668 has been introduced into the Legislature to modify the Smith Peak Game Refuge boundary as indicated.

Restricted Area

Water from this lake will be used for domestic purposes; consequently, regulations issued by the State Department of Public Health relating to the recreational use of domestic water supply reservoirs must be complied with. The State Board of Public Health at its regular session on May 15, 1951, established a policy in regard to recreational use of domestic water supply reservoirs. Part of this policy states:

"5. Recreation use of both shoreline and water surface should be restricted to an appropriate distance beyond the intake tower. Actual distance (in no case less than 1,500 feet) will depend on factors of wind, water current, size and shape of reservoir."

In accordance with this policy, a zone in which no water contact is permitted must be buoyed off for a distance of 1,500 feet upstream from the domestic water intake in Lake Davis to protect the downstream domestic use. This is in conformity with Department of Public Health's comments as shown in Appendix D, "Pertinent Letters and Correspondence".

Lake Operation Schedule

The operation schedule for Lake Davis reflects the recreational use for which the dam and reservoir is being built. Releases of water will be primarily for downstream fisheries enhancement. Fluctuation of the lake will

vary from year to year depending upon the amount of precipitation, runoff, and downstream release. As shown in Appendix E, studies for the period from 1912 through 1961 show that maximum annual fluctuation during these years would have varied from 2.0 to 5.5 feet. During this period, the normal annual drawdown would have been approximately 3.5 feet. Lake Davis will fill and spill most years. Drawdown will begin in July and continue through summer and fall until early winter precipitation begins.

The schedule of downstream releases from the lake have been agreed upon between the Department of Water Resources, Department of Parks and Recreation, and Department of Fish and Game, with approval of the U. S. Forest Service and U. S. Fish and Wildlife Service. A schedule of flow releases is indicated by the following excerpt from a memorandum from the Department of Fish and Game.

Lake storage on May 1, in acre-feet	Minimum flow release, in cubic feet per second		
	<u>5/1 - 6/15</u>	<u>6/16 - 3/15</u>	<u>3/16 - 4/30</u>
83,000	18	8	18
75,500 to 83,000	16	6	16
65,000 to 75,500	15	5	15
below 65,000	14	4	14

Since Lake Davis is primarily a recreation project, streamflow releases should be tailored to fit the needs of both recreation and streamflow enhancement. Balance

should be maintained between recreation needs at the lake and along the stream. This concept was the basis for the present schedule of flow releases. Future conditions may be such that this schedule will become obsolete, thus making it desirable to formulate new schedules based on new conditions. Any changes in release schedules will be coordinated by the Department of Fish and Game, Department of Parks and Recreation, U. S. Forest Service, U. S. Fish and Wildlife Service, and Department of Water Resources.

Land Ownership

All lands needed for project purposes are contained within the area designated as the Planned Public Recreation Zone on Plate 4, "Property Status Map". A total of 5,143 acres of private property lies within the boundary shown on Plate 4; these lands are in the process of acquisition by the State for project purposes. The balance of the land within the recreation zone is owned by the Federal Government under Plumas National Forest jurisdiction. The U. S. Forest Service initiated proceedings that resulted in the withdrawal of these recreation area lands from all entry other than that for recreation use. Plate 4 also indicates the present land ownership pattern within and adjacent to the Lake Davis Project.

Necessary rights-of-way to and along Big Grizzly Creek, from the dam to the confluence of the creek with the Middle Fork Feather River, will be acquired to insure public access.

Required rights-of-way will include the area between two lines, measured on a horizontal plane 25 feet from the high water line on either side of the creek. Access to the creek will be provided by acquiring the necessary rights-of-way over four existing unpaved roads. A parking area for about 15 cars will be provided at the end of each access road. The location of the creek, access roads, and property ownerships along the creek are shown on Plate 5.

Land Use Plan

Lands surrounding the lake, in general, are well suited to immediate recreation development as well as extensive future expansion. Section 11919 of the Water Code defines recreation facilities at State Water Projects as "recreation areas". Section 11910.5 of the Water Code defines the types of recreation that may be developed at these areas: camping, picnicking, fishing, hunting, water-contact sports, boating, sightseeing, and other recreational pursuits usually associated with the out-of-doors. Lake Davis and the surrounding area are sufficient in extent to accommodate all of these uses. Plate 3, "Lake Davis,

Recreation Land Use Plan", indicates a compatible plan for land use which utilizes these surrounding lands to their fullest potential.

Recreation planning at Lake Davis has been based upon the following concepts and principles:

1. There must be public access to the lake, adjoining lands, and downstream along Big Grizzly Creek.

2. Facilities must be of a type and quality to realize the full potential of the project.

3. The design and quality of facilities must be in keeping with other state recreation developments to insure efficient and low-cost operation and maintenance.

4. Recreation use must be foreseen and planned for, in order to prevent physical damage or general deterioration of the area resulting from human use.

5. Initial recreation facilities and future developments will be adapted as necessary to utilize and protect the natural features of the area.

6. The initial recreation facilities should accommodate the anticipated use for the first decade of lake operation. Succeeding developments will be staged in an orderly manner to provide for future use when and as the demand warrants.

Recreation Evaluation of Lake Davis

Evaluation of a project for recreation is made in terms of the increased use due to the project. The numbers of visitor-days expected with the project, minus those expected if the project were not to be built, gives the

enhancement, which, taken over a 50-year period, is the recreation value.

For Lake Davis, projections of recreation use were made for both day-use and overnight or extended use on the following assumptions:

1. The amount of participation in out-of-door recreation will increase at about the same rate for the next 50 years as it has in the past 10 years.

2. The population from which the use is expected to originate will increase at about the same rate as that of the whole State as shown in Appendix F, "Population Projections, Statewide and Selected Counties".

3. Recreation use at Lake Davis will occur at about the same level of demand as occurs at similar recreation lakes in similar situations.

Information on the recreation use for this area was derived from several sources. The 1960 level of recreation use of Grizzly Valley was derived largely from data supplied by the Department of Fish and Game and the U. S. Forest Service. The estimate of the initial level of use of the completed project was derived from studies of the recreation use at a composite of several recreation resources in the Upper Feather River Basin. Hence, analyses of the recreation resources, facilities, and use at U. S. Forest Service's Jackson Creek, Round Valley, and Lakes Basin campgrounds; the Division of Beaches and Parks' Plumas-Eureka State Park; and the Pacific Gas and Electric

Company's Gold Lake campground served as bases for estimating initial recreation use of Lake Davis.

Day use was treated separately from overnight use because the area of origin of day users (about a 50-mile radius) is much smaller than that of overnight users. A per capita participation calculation, based upon local population within a radius of approximately 50 miles, was used to determine day use at the 1960 population level which, in turn, formed the basis for projection to future decade levels.

The rate of overnight use per capita was calculated by estimating the amount of such use at the first and fifth years after construction, judged from experience at similar recreation locations already mentioned. From these comparative data, a use figure was determined for the year 1970, which also was designated to serve as the baseline for the decade interval projection. This projection was calculated by multiplying the base decade figure by a projection factor for each decade. The projection factor combines the projected increases in local population and per capita recreation use. For example, the local population in 1970 is expected to be 1.19 times greater than that in 1960, and the per capita outdoor recreation rate is expected to be about 1.54 times that of 1960. Combining these two rate increases results in a factor of about 1.83. Thus, for each visitor-day of recreation use in 1960, 1.83 visitor-days of use are

expected in 1970. Future increases in both the demand and the size of population will serve to increase the recreation use at an accelerating rate.

Recreational facilities needed by anglers fishing downstream from the dam along Big Grizzly Creek will be very minor, and will be in the nature of parking areas and chemical toilets at access points.

Recreation Use Without Project

Without the project, Grizzly Valley probably never would become an appealing recreational area. The surrounding area is mountainous, sparse to well-forested, and pleasantly scenic, but otherwise has little to attract people seeking recreation other than hunting and limited fishing. Table 1, "Estimated Recreation Use at Grizzly Valley and Big Grizzly Creek, Without Project, 1960-2020", indicates the extent of visitor-use of the proposed project area under conditions without the project.

The reach of Big Grizzly Creek between the dam and the confluence of Big Grizzly Creek and Middle Fork Feather River, near State Route 70, could support more intensive angling use than it now receives. Angling use of this reach of the creek was projected on the assumption that more intensive future demands will develop; that the trout-stocking program will be augmented to keep pace with the demands;

that water-project development will not adversely affect the stream; and that adequate angling access will continue to exist.

TABLE 1
ESTIMATED RECREATION USE AT
GRIZZLY VALLEY AND BIG GRIZZLY CREEK,
WITHOUT PROJECT, 1960 TO 2020

(In Visitor-Days)

Year	Downstream	Lake area		Total
		Fishing	Hunting	
1960	1,000	1,000	100	2,100
1970	2,500	1,200	150	3,850
1980	3,300	1,600	250	5,150
1990	4,500	2,200	350	7,050
2000	6,400	3,200	500	10,100
2010	8,900	4,200	650	13,750
2020	11,200	5,500	800	17,500

Recreation Use With Project

The presence of a lake will enhance the recreation potential and the attractiveness of Grizzly Valley while the surrounding forested mountains will provide a scenic setting for the lake. The forest will extend down to the irregular

shoreline, especially the southwesterly shoreline, which is composed of numerous scenic peninsula-like arms extending into the lake, and which will offer excellent recreational opportunity. Table 2, "Estimated Recreation Use at Lake Davis and Big Grizzly Creek - With and Without Project, 1970 to 2020", indicates the magnitude of expected visitor use of the area under project conditions, for both Lake Davis and Big Grizzly Creek.

Recreation Benefits

Recreation benefits are considered as the direct benefits attributed to individuals who visit the facilities at the lake and to anglers downstream. Benefits are based on the increment of use attributed to the project above that which would occur without the project as shown in Table 2. Indirect benefits, such as those enjoyed by resort owners and shopkeepers, were excluded from the economic analysis.

Cost of travel, origin of trip, number of visitors, and length of stay in the recreation area were considered in the determination of average recreation benefits. The average benefit value was determined by a method based on distance traveled and distribution of recreationists. The average benefit value per visitor-day was found to be \$2.25.

The estimated present worth of recreation benefits for the 50-year analysis period from 1965 to 2015 is \$8,354,000 and the average annual equivalent benefit is \$388,900.

TABLE 2

ESTIMATED RECREATION USE AT LAKE DAVIS AND
BIG GRIZZLY CREEK 1/ - WITH AND WITHOUT PROJECT,
1970 TO 2020

(In Visitor-Days)

Year:	Big Grizzly Creek: angling use	With project		Total use	Without project ^{2/}	Use increase
		Day use	Camp use			
1970	4,000	42,000	37,000	79,000	3,850	79,150
1980	6,400	68,800	58,800	127,600	5,150	128,850
1990	9,200	114,200	85,100	199,300	7,050	201,450
2000	12,800	194,000	118,400	312,400	10,100	315,100
2010	16,800	309,400	155,400	459,800	13,750	462,850
2020	21,400	439,600	194,400	634,500	17,500	638,400

1/ From Grizzly Valley Dam to the confluence with Middle Fork Feather River.

2/ From Table 1.

Conditions of Recreation Use

The initial recreation facilities will provide for camping, potable water supply, boat launching ramp, sanitary facilities, swimming beach, picnic facilities, and a concession area. An island will add to the scenic qualities, as well as provide an interesting day-use diversion for swimmers, boaters, picnickers, and fishermen. Extensive shoreline areas are available for picnicking, swimming, shore fishing, and generally enjoying the scenic attraction of the area. The lake is expected to provide a good habitat for trout, thus completing the picture of an ideal forest camping area possessing qualities which appeal to the entire family, summer vacationing in the out-of-doors.

The environmental changes resulting from dam and reservoir construction are not expected to have appreciably adverse effects upon wild game populations in the area other than to eliminate deer hunting in the flooded portion of the lake, which has provided little in the way of deer kill. Deer hunting will continue to be as important in the areas surrounding the lake as it has in the past. It is anticipated that deer hunters will use these lakeside campgrounds for base camps in their hunting activities. Deer hunting season in this area is late in the fall, long after the summer vacation season; consequently, little or no conflict with other recreational uses should occur.

Some waterfowl populations can be expected to develop at this lake. It is anticipated that the Freeman Creek Recreation Area will be managed for waterfowl purposes. It is contemplated that waterfowl hunting will be possible here, for it is believed that ducks and geese will use the lake for a resting area during migrations. As in the case of deer hunting, waterfowl hunting takes place in the fall when there is little or no conflict with other recreation uses; as a result, waterfowl hunting is considered to be a function entirely compatible with other lake uses.

Nearby Frenchman Lake has provided a superb fishery for rainbow trout, which were planted as small fish and grew rapidly. Lake Davis will almost certainly provide a similar fishery, depending largely upon the rate of stocking to be maintained by the Department of Fish and Game. In addition, the stream below the dam will present an excellent opportunity to extend the catchable trout fishery as well as to develop a vigorous natural population in a beautiful and regulated stream. To ensure the release of water with temperatures suitable for this downstream fishery, a multiple-level intake structure has been incorporated in the dam design.

Schedule for Recreation Development

Ample land will be acquired to accommodate all the predicted recreation use during the 50-year period (1965-2015) and to facilitate good recreation management as advocated and mutually agreed upon between the Department of Water Resources, Department of Parks and Recreation, and the U. S. Forest Service.

To provide for the estimated recreation use by decades, as indicated in Table 2, additional facilities will be needed as the use increases. A schedule for decadal facility development to provide for this anticipated use for the 50-year period is presented in Table 3, "Lake Davis Staged Decadal Recreation Facilities". This staged development also indicates the cost of facilities on a decadal basis. Initial recreation development costs are shown in Appendix G, "Construction Cost Estimate, Initial Recreation Development, Lake Davis".

Initial Recreation Development

The initial recreation development has been sized to accommodate the recreation use which is expected to develop within the first decade of project existence, and represents only a part of the total possible development. The Developed Area Plans, Plates 6 and 7, show locations of

TABLE 3

LAKE DAVIS
Staged Decadal Recreation Facilities

Recreation Area :	1965-75	1975-85	1985-95	1995-2005	2005-15
Grasshopper Flat	125 Camp Units 25 Picnic Units 1 Overlook	56 Camp Units			65 Picnic Units
Smith Peak			60 Camp Units		
Cow Creek		1 Group Camp	1 Group Camp	1 Group Camp	50 Camp Units
Valley Vista	1 Boat Ramp		40 Picnic Units Concession Area	25 Picnic Units	
Humbug Creek				25 Picnic Units	
Crocker Mountain	1 Overlook			65 Picnic Units	40 Camp Units
Freeman Creek	Nesting Islands 1 Overlook				
DECADAL TOTAL	\$700,500	\$462,000	\$603,000	\$682,000	\$ 735,500
TOTAL CAPITAL COST					\$3,183,000

the initial and a portion of the future recreation developments on the lake's perimeter as well as their relationship to access roads.

Domestic water for the developments will be pumped from either infiltration galleries near the lake's edge or directly from the lake. Storage and/or pressure tanks will provide for distribution of domestic water. The water will be chlorinated before it enters the tanks.

Electric power is in the process of being made available to the Welch Estates subdivision on the county road approximately 2 miles southeast of the dam.

Recreation developments are proposed for two of the seven recreation areas; the initial phase will occur on Grasshopper Flat and Valley Vista Recreation Areas.

Grasshopper Flat Area

Grasshopper Flat recreation facilities will include developments for camping, picnicking, water and sanitary systems, swimming, and access roads.

The campground will be developed on land adjacent to the left dam abutment. This area was chosen for its desirable combination of good access, relatively level topography with pine forest cover, lakeside location, and scenic qualities. This campground will consist of 125 camp units, each unit having a parking spur, stationary wood table, wood-burning campstove, and a leveled area for a tent, trailer, or pickup camper.

Picnic facilities will consist of 25 units, with one stove located adjacent to four picnic units. The completed development will include piped water, sanitary facilities, central parking areas, and an access road.

Water faucets will be located centrally to groups of four camp units. Sanitary facilities will consist of eight comfort stations located centrally to the above-named activities. A network of surfaced roads provides for internal circulation and access to the main public thoroughfares. Swimming will be accommodated by a gently sloping beach area composed of a coarse granite sand. Plate 6, "Grasshopper Flat Area, Developed Area Plan", presents a schematic plan for development of the camp and picnic grounds. These facilities will accommodate about 500 campers and 150 picnickers per day. The cost is estimated to be \$577,450 as shown in Appendix G.

Valley Vista Area

The remainder of the initial development will be located on the northerly shore of the reservoir designated as the Valley Vista Area. Facilities to be developed in this area will include boat launching ramp, parking areas, water treatment facilities, sanitary facilities, and an access road. The boat launching ramp and its related parking will be located on one of the major peninsulas of the northerly shoreline. The sanitary facilities will consist of one centrally

located comfort station. A water system and necessary access roads will complete the development at this location.

Plate 7, "Valley Vista Area, Developed Area Plan", presents a schematic plan for development of the boat launching ramp and related facilities. The boat launching ramp will be able to accommodate approximately 300 people in 75 to 100 boats daily. The cost of this initial development is estimated to be \$123,050 as shown in Appendix G.

Operation of Recreation Developments

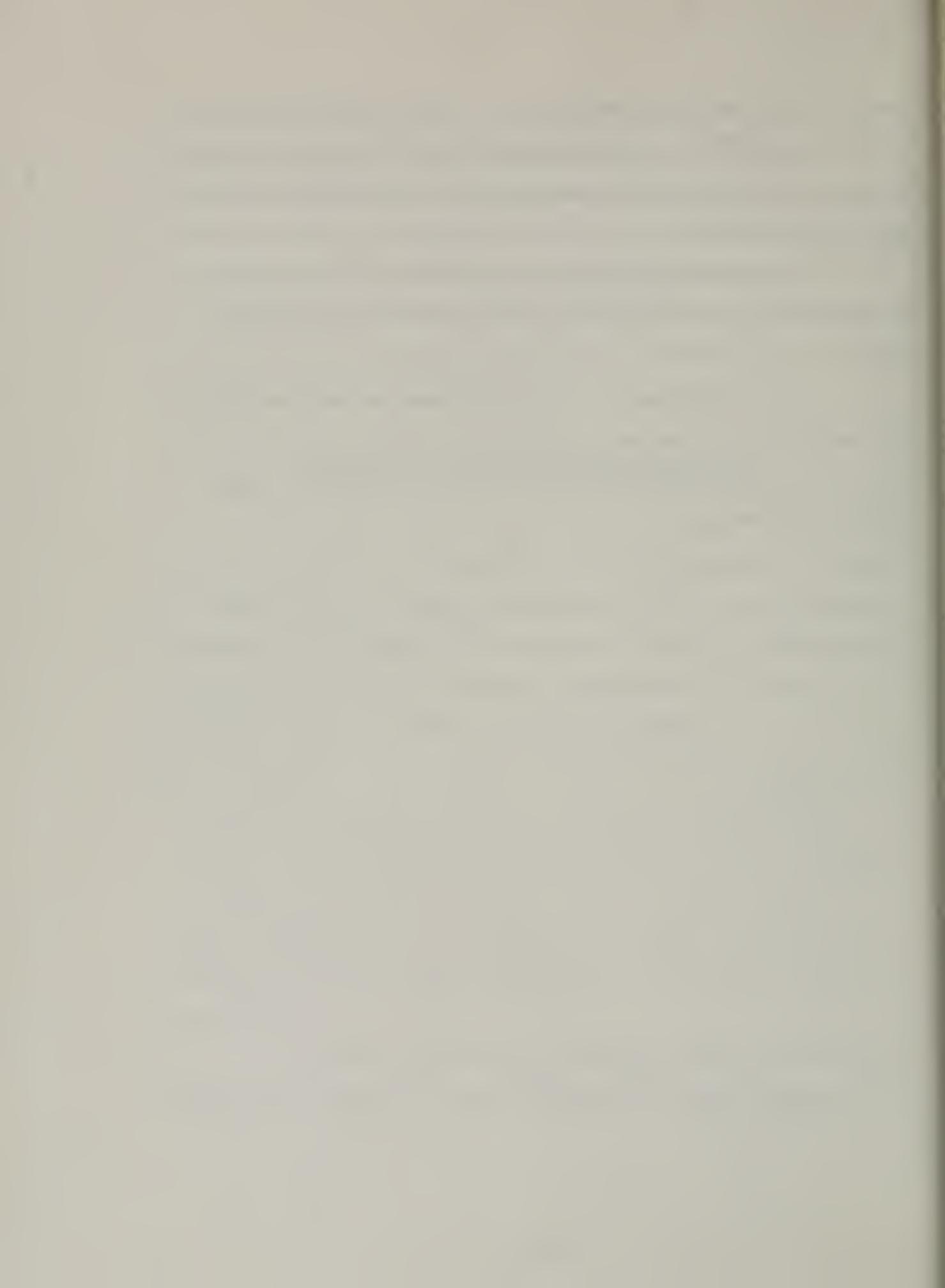
The Davis-Dolwig Act of 1961 authorized the (then) Department of Natural Resources, now the Department of Parks and Recreation, to design, construct, operate, and maintain recreation facilities at State Water Projects. Approximately 50 percent of all the recreation development at Lake Davis will be on federal lands under the management of the U. S. Forest Service. Under these circumstances, the Department of Parks and Recreation plans to negotiate an agreement similar to the Frenchman Reservoir contract with the County of Plumas. The County, in turn, may subcontract with the Plumas National Forest to perform the actual operation and maintenance of recreation facilities on state-owned land at Lake Davis.

It will be desirable to offset as much of the maintenance and operation costs as possible by charging fees for

use of the recreation facilities. A fee schedule should be established that is comparable with those of similar areas in the State and mutually acceptable to the several public agencies involved.

Additional sanitary facilities may be necessary as dictated by the pressure of public use in undeveloped areas.

The Department of Fish and Game is responsible for managing the fish and wildlife resources in conjunction with its overall jurisdiction of fish and wildlife management in the State.



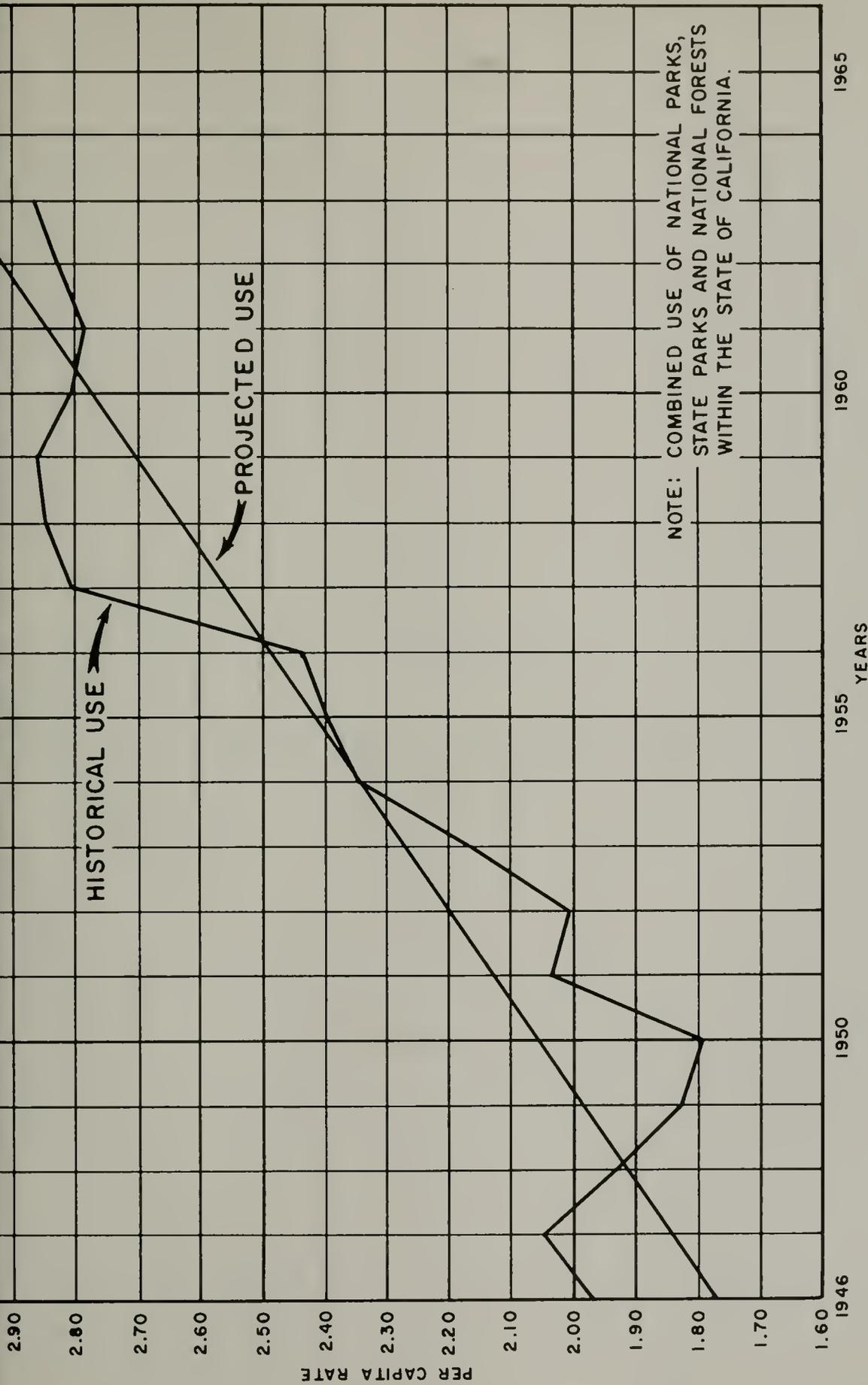
APPENDIX A

Outdoor Recreation Trend in California

Historical and Projected Use

1946 - 1963





OUTDOOR RECREATION TREND IN CALIFORNIA,
HISTORICAL AND PROJECTED USE, 1946 TO 1966



APPENDIX B

Recreation Use in Plumas National Forest

1941 - 1963

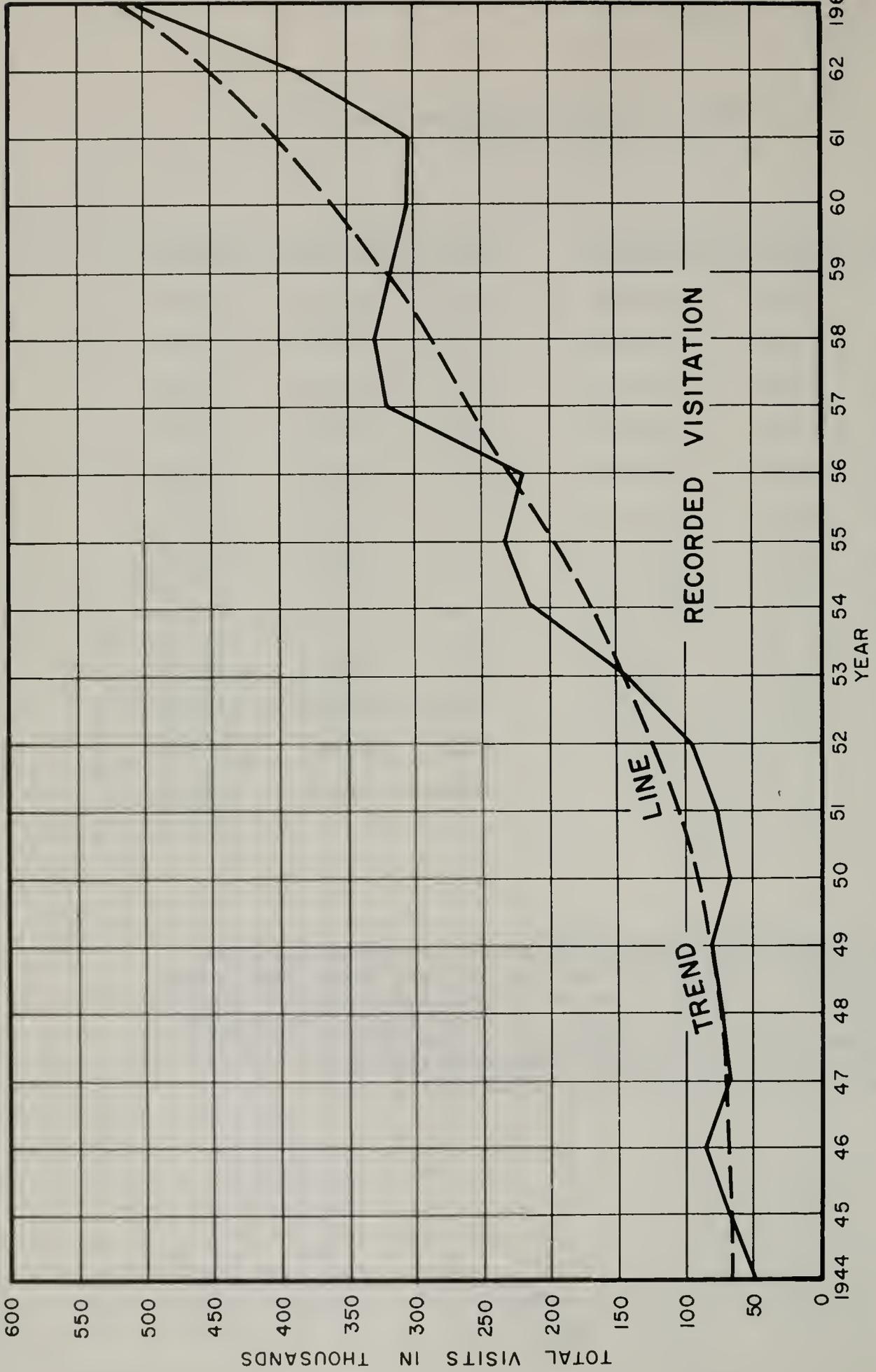


Recreation Use in Plumas National Forest ^{1/}
1941 - 1963 ^{2/}

<u>Year : Total Visits : Man-days</u>			<u>Year : Total Visits : Man-days</u>		
1941	79,285	261,652	1952	95,095	328,440
1942	57,037	157,417	1953	144,456	459,947
1943	43,000	130,000	1954	213,572	630,641
1944	48,175	143,385	1955	231,180	744,543
1945	68,670	263,985	1956	220,000	616,200
1946	84,511	315,390	1957	320,700	832,100
1947	66,819	225,813	1958	329,800	801,600
1948	70,899	220,975	1959	318,500	800,300
1949	80,290	228,560	1960	304,500	817,900
1950	66,345	211,480	1961	304,500	857,300
1951	75,235	269,390	1962	387,900	1,049,800
			1963	507,600	1,269,200

^{1/} The United States Forest Service reports recreation use in its forest in a manner differing from that used by most other public agencies. Its figures are not directly translatable to "visitor-days" as used in this report. It is the trend of use depicted by these figures that is significant and indicates the increasing demand upon the recreation resources of the area.

^{2/} Data courtesy of United States Forest Service.



RECREATION USE IN PLUMAS NATIONAL FOREST, 1944 - 1963

APPENDIX C
Recreation Use Survey
Frenchman Lake
1963



Summary

Recreation Use Survey
Frenchman Lake - 1963

(By numbers of visitors)

DAY USE

<u>ZONE*</u>	<u>NUMBER VISITORS</u>	<u>PERCENT</u>	
Local	972	39	
Intermediate	339	13	
Nevada	<u>1,218</u>	<u>48</u>	
TOTAL	2,529	100	
Percent of Total			21

OVERNIGHT USE

Local	2,161	22	
Intermediate	4,941	51	
Distant	586	6	
Out-of-State (primarily Nevada)	<u>2,067</u>	<u>21</u>	
TOTAL	9,755	100	
Percent of Total			79

* See Plate 2 regarding zone location.

Recreation Use Survey
 Frenchman Lake - 1963

Visitor Origins

DAY USE

<u>COUNTY</u>	<u>NUMBER VISITORS</u>	<u>PERCENT</u>
Lassen	259	
Plumas	383	
Shasta	0	
Tehama	0	
Butte	26	
Yuba	0	
Sierra	148	
Nevada	9	
Placer	<u>147</u>	
TOTAL	972	

Summation

Local Zone	972	39
Intermediate Zone	339	13
Nevada Zone	<u>1,218</u>	<u>48</u>
TOTAL	2,529	100

OVERNIGHT USE

LOCAL ZONE

Lassen	200
Plumas	176
Butte	237
Yuba	272
Sierra	168
Nevada	52
Placer	<u>1,056</u>
SUBTOTAL	2,161

Percent 22

Recreation Use Survey (continued)
 Frenchman Lake - 1963

Visitor Origins

OVERNIGHT USE, Continued

INTERMEDIATE ZONE

<u>COUNTY</u>	<u>VISITORS</u>	<u>COUNTY</u>	<u>VISITORS</u>	<u>PERCENT</u>
Shasta	4	San Joaquin	217	
Tehama	5	Solano	47	
Glenn	12	Contra Costa	285	
Lake	0	Alameda	349	
Colusa	0	Marin	19	
Sutter	107	San Francisco	154	
Sonoma	520	San Mateo	108	
Napa	133	Santa Cruz	72	
Yolo	373	Santa Clara	142	
Sacramento	2,064	Stanislaus	164	
El Dorado	31	Merced	122	
Alpine	0	Tuolumne	0	
Amador	5	Mariposa	0	
Calaveras	8	Mono	0	
		SUBTOTAL	4,941	51

DISTANT ZONE

<u>COUNTY</u>	<u>VISITORS</u>	<u>COUNTY</u>	<u>VISITORS</u>	<u>PERCENT</u>
Inyo	0	San Bernardino	28	
Madera	0	Orange	14	
Fresno	8	Riverside	19	
Tulare	4	San Diego	44	
Kings	0	Imperial	0	
San Benito	27	Modoc	0	
Monterey	54	Siskiyou	0	
San Luis Obispo	32	Del Norte	0	
Santa Barbara	0	Humboldt	9	
Ventura	19	Trinity	0	
Kern	27	Mendocino	0	
Los Angeles	301	SUBTOTAL	586	6

Recreation Use Survey (continued)
Frenchman Lake - 1963

Visitor Origins

OVERNIGHT USE, Continued

OUT-OF-STATE ZONE

<u>OUT-OF-STATE</u>	<u>VISITORS</u>	<u>PERCENT</u>
Nevada Use	2,067	21

SUMMATION

Local Zone	2,161	22
Intermediate Zone	4,941	51
Distant Zone	586	6
Out-of-State Zone	<u>2,067</u>	<u>21</u>
TOTAL	9,755	100

APPENDIX D

Pertinent Letters and Correspondence



RECREATIONAL USE OF WATER SUPPLY RESERVOIRS

The following excerpt is taken from the minutes of the State Board of Public Health which met in regular session on May 15, 1951:

"Mr. Reinke discussed and read recommendations pertaining to recreational use of water supply reservoirs which had been made available to the Board members. Several of the local health officers who were present took part in the discussion as it related to their particular sections of the state. One of the points that was emphasized was that the recreational use would be limited to boating, hunting and fishing, and that no swimming by humans or animals would be allowed. It was also pointed out that strict supervision would have to be maintained to make sure that the privilege was not abused.

"Dr. McClendon moved, Dr. Rinehart seconded and the motion carried that the following recommendations pertaining to recreational use of water supply reservoirs be accepted and that the local health officers and the executive officers of the State and Regional Water Pollution Control Boards be notified of this action:

"1. Recreational uses of water supply reservoirs should impose no greater risks of pollution or contamination of the public water supply than those already existing due to other uses of the watershed.

"2. When no treatment is provided, or when chlorination is the only treatment, no recreational use, or very restricted use should be allowed, depending on the size and time of storage in the reservoir.

"3. Recreational use of domestic water supply reservoirs should be limited to boating, fishing and hunting. No wading or swimming should be allowed by persons or animals.

"4. Toilet facilities should be provided at convenient locations. Can-type chemical toilets with provision for disposal of contents off the watershed are preferred. In no case should sewage liquids or solids be deposited within 200 feet of the high water line and provision should be made for disposal in such a manner as to avoid overflow, drainage or seepage to reservoir waters.

"5. Recreational use of both shoreline and water surface should be restricted to an appropriate distance beyond the intake tower. Actual distance (in no case less than 1500 feet) will depend on factors of wind, water current, size and shape of reservoir.

"6. Public health supervision of all recreational use by both the water purveyor and the local health department should be provided.

"Dr. Smith stated that if there are comments or suggestions from the local health officers or the executive officers of the State and Regional Water Pollution Control Boards, opportunity will be given for further consideration."

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State of California

Revenue and Management Agency

MEMORANDUM

To : Mr. Carl A. Werner
Chief, Delta Branch
Department of Water Resources
P.O. Box 388
Sacramento, California 95802

Date : January 19, 1965

File No.:

From : Department of General Services--Office of Architecture
and Construction

Subject: Lake Davis Recreational Development Plan
Grizzly Valley Reservoir
Department of Water Resources

Thank you for asking us to participate in the review of the subject plan. The report is very complete and thoroughly analyzes the situation.

In view of the population growth and demand for this type of facility, we suggest that you have more group areas, additional boat ramps, and that you may find the parking areas inadequate from the beginning. This is based on the population figures shown in the report and from our prior experiences from Beaches and Parks projects. The plan allows for ample expansion so should you consider adding more group areas, it could be done without disturbing the present Master Plan. Your plan does allow for future parking spaces and construction could be accomplished as rapidly as funds are made available to meet the demand.

Thank you again for your consideration. We have prepared a Budget Package for this project through the Department of Beaches and Parks, and we hope to participate in its construction in the near future.

/s/ Carl C. McElvy
Carl C. McElvy
State Architect

CCM:mg

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State of California

Highway Transportation Agency

M E M O R A N D U M

To : Department of Water Resources Date: January 21, 1965
Attention Mr. Carl A. Werner
File: 2-Plu-70(Old 21)
Lake Davis Recreation
Development Plan

From : Department of Public Works--Division of Highways

Subject:

Reference is made to your letter of December 24, 1964, forwarding for review and comment Bulletin No. 117-3 "Lake Davis Recreation Plan".

State Route 70, which passes near the proposed lake, is tentatively scheduled to be realigned in 1967 and 1968 on an adopted location closer to the lake. Right of way acquisition is expected to start in 1965.

On November 25, 1964, we forwarded to Mr. D. P. Thayer, Department of Water Resources, Sacramento, our plan for the new intersection of Route 70 and County Road No. 112, which will provide the main access to Lake Davis from the south. We believe that this connection will adequately provide for the anticipated increased turning movements to the Lake Davis Recreation area.

In the event that a water supply or irrigation system is planned in connection with this project, and distribution facilities cross the new Route 70 alignment, it is suggested that our Redding office be contacted at the proper time to coordinate our respective projects.

Thank you for the opportunity to review the proposal and forward our comments.

J. C. WOMACK
State Highway Engineer

By /s/ G. Langsner
Deputy State Highway Engineer

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STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

Malcolm H. Merrill, M.D.
Director of Public Health

EDMUND G. BROWN
Governor

Bureau of Sanitary Engineering
Room 14 - 2135 Akard Avenue
Redding, California
January 22, 1965

Carl A. Werner, Chief
Delta Branch
Department of Water Resources
P. O. Box 388
Sacramento, California

Dear Mr. Werner:

Thank you for sending us the draft copy of Bulletin 117-3
"Lake Davis Recreational Development Planning".

Review of the planned development indicates recreational use will be regulated to provide protection for the domestic water intake at the dam. The plan includes a restricted zone of no usage within 1500-feet of the dam. The shoreline within the 1500-foot restricted zone would be signed to prohibit water contact use. Beaches and other developed water contact use areas would be at least 2500-feet from the dam. Underground sewage disposal systems would be located at least 200-feet from the shoreline and would be carefully designed to prevent overflows.

The planned domestic water facilities would supply treated reservoir water to the developed recreational areas. Although treated reservoir water would be a safe supply for the recreational areas, springs or wells should be used if possible. Use of ground water would avoid installation of a water treatment plant and the maintenance required for such units.

If you would like to discuss sanitation facilities planning further as the project develops we would be glad to meet with you.

Very truly yours,

H. B. Foster, Jr., Chief
Bureau of Sanitary Engineering

GBG:as
cc: Co. H.D.
BSE - Sacramento
Berkeley

/s/ George B. Gentry
George B. Gentry
Senior Sanitary Engineer

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Y State of California
M E M O R A N D U M

THE RESOURCES AGENCY OF CALIFORNIA

To : William E. Warne, Director
Department of Water Resources

Date : January 25, 1965

Attn: Carl A. Werner, Chief, Delta Branch

Subject: WATERSHED MANAGEMENT
Draft of Bulletin No. 117-3
Lake Davis Recreation
Development Plan
Lassen Unit
District II

From : Department of Conservation--Office of the Director

Comments from Divisions within this Department on your draft of Bulletin No. 117-3, "Lake Davis Recreation Development Plan", are as follows:

DIVISION OF SOIL CONSERVATION

We have no comments to submit on this plan.

DIVISION OF MINES & GEOLOGY

The proposed development would have no effect on the mineral industry of the area. No mention is made in this recreation development plan of the geological conditions pertaining to the area in which the dam is to be built. We assume that a separate geologic study has been or will be made and will be the subject of future feasibility and/or planning reports.

In the event geologic studies have not yet been made, attention should be directed to the availability of the California Division of Mines and Geology Chico sheet of the Geologic Map of California. This portrays the general geology of the area and in addition provides references for some detailed studies. All of this would be useful to a detailed site investigation.

DIVISION OF FORESTRY

The Lake Davis recreation development plan area is well within the National Forest. The Forest Service has no doubt prepared a multiple use study which we believe should be considered in carrying out the plan.

William E. Warne

-2-

January 25, 1965

The California Department of Conservation, through the Division of Forestry, contracts to finance the fire protection for private lands inside National Forest Areas.

We would be interested in being kept advised on the development and installation of fire protection and prevention measures associated with the project.

DeWitt Nelson, Director

By: /s/ Robert D. Calkins

Robert D. Calkins, Deputy Director

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cc: USFS

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UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
PLUMAS NATIONAL FOREST
Quincy, California 95971

In Reply Refer To
2310

January 28, 1965

Mr. William Warne, Director
Department of Water Resources
State of California
P. O. Box 388
Sacramento, California

Attention: Carl Werner, Chief, Delta Branch

Dear Mr. Warne:

We appreciated the opportunity to review Bulletin No. 117-3, entitled "Lake Davis Recreation Development Plan".

The Plan is comprehensive in displaying background material, and is quite adequate in its portrayal of the development proposals for this magnificent recreation area.

We somehow feel that greater emphasis should be given the waterfowl potential of this lake. It would appear logical that low level dykes between several of the peninsulas in the upper reaches of the lake may hold shallow ponds or marsh as waterfowl habitat in the Grizzly Creek and Freeman Creek arms which may otherwise be dry when the lake recedes.

We have also made several notations and corrections in the copy of the draft being returned herewith.

Thank you again for the opportunity to review this Plan.

Sincerely yours,

WILLIAM A. PETERSON
Forest Supervisor

By /s/ George A. Fischer

Enclosure

C HEALTH DEPARTMENT
O Phone Quincy 1143
P
Y

HEALTH OFFICER
W. B. McKnight, M.D.

COUNTY OF PLUMAS
STATE OF CALIFORNIA
QUINCY
January 29, 1965

Carl A. Werner, Chief
Delta Branch
State of California
Department of Water Resources
P. O. Box 388
Sacramento, California

Dear Mr. Werner:

Thank you for the opportunity to review and comment on the draft copy of Bulletin 117-3 "Lake Davis Recreation Development Plan."

Since a contract for the purchase of domestic water is now being negotiated between the County of Plumas and the State and since some of the uses indicated in the above plan are water contact sports such as swimming and water skiing, we would like to call your attention to two sections of the State Board of Health minutes of May 15, 1951, shown on appendix page H-2*of Bulletin 117-3 and numbered 2 and 3 which read as follows:

- "2. When no treatment is provided or when chlorination is the only treatment, no recreational use, or very restricted use should be allowed, depending on the size and time of storage in the reservoir."
- "3. Recreational use of domestic water supply reservoirs should be limited to boating, fish and hunting. No wading or swimming should be allowed by persons or animals."

Since both the State Health Department and our Department have previously agreed on the 1,500 foot restricted zone of no usage, and on keeping all swimming areas a minimum of 2,500 feet from the dam, it would seem wise if we were to advise future users of the domestic water that chlorination alone might not be sufficient to insure a safe domestic water supply but that additional treatment may be indicated in the future due to the water contact sports.

IN THE HEART OF
THE FEATHER RIVER COUNTRY

* Page H-2 has been changed to page D-1 in the final report.

Page (2)

January 29, 1965
Department of Water Resources

The plan as stated in Bulletin 117-3 has been well done and when the project is completed will provide the people of California another needed recreational area as well as helping to provide domestic water vitally needed in Plumas County.

We want to thank you for allowing us the opportunity to comment in September 1963 and again at this time. Any assistance that our office can render to your department or the Division of Beaches and Parks will be readily forthcoming.

Very truly yours,

/s/ William T. Cullen

William T. Cullen, R. S.
Chief Sanitarian

WTC/jj

cc: George Gentry
State Health Department
Harmon Rowe
Beaches and Parks

C

O

P

Y

Joe W. Crivello, Chairman, Quincy

Clair Donnenwirth, Portola
Gordon M. Purdy, Chester

Raymond Larison, Quincy
Robert H. Hunter, Greenville

PLUMAS COUNTY BOARD OF SUPERVISORS

Lois Kehrer, Clerk

February 2, 1965

QUINCY, CALIFORNIA

Mr. Carl A. Werner
Chief, Delta Branch
State Department of Water Resources
P. O. Box 388
Sacramento, California

RE: LAKE DAVIS

Dear Mr. Werner:

The Plumas County Board of Supervisors has asked us to advise you that Plumas County wholeheartedly supports the Department of Water Resources Bulletin No. 117-3, with possible reservations as might be made by the Plumas County Health Department.

At the regular meeting of the Board of Supervisors February 1, 1965 the following comment was made: 'It is hoped that a land exchange between the United States Forest Service and the State of California involving U.S.F.S. land south of Plumas Eureka Park and State land at Davis Lake be effected so that the administration of recreational facilities will be less complex.'

We hope these comments will meet with your approval.

Very truly yours,

LOIS KEHRER, County Clerk
and ex-officio clerk of said
Board of Supervisors

By /s/ Raynelle Slater
Deputy

C

O

P State of California

Y

The Resources Agency

MEMORANDUM

To : Carl A. Werner Date: February 17, 1965
Chief, Delta Branch
Department of Water Resources

From : Department of Fish and Game

Subject: Draft of Bulletin No. 117-3, "Lake Davis Recreation
Development Plan."

We have reviewed the draft of Bulletin No. 117-3, "Lake Davis Recreation Development Plan." The report covers the recreational aspects of the project adequately, and we concur in the conclusions and recommendations as stated. We do suggest that before submitted the report to the Legislature the two assumptions used in making projections of future angler use on Grizzly Creek below the dam be clarified. These assumptions are:

- a. "Adequate angling access will continue to exist."
- b. "The trout stocking program will be augmented to keep pace with the demands."

The projections made on these assumptions are open to question since about ninety percent of the stream below the dam is in private ownership. The area is being subdivided at a rapid rate and it is doubtful that the stream will be open to the public in the near future. If the public is denied access to fish the stream, then the Department, in turn, will be forced to curtail trout stocking. Lake Davis, by itself, will provide for heavy recreational use as is indicated in the plan. However, in order that the people of California may take full advantage of the enhancement potentials of the Grizzly Valley project, we recommend that the Department of Water Resources give further consideration to the acquisition in fee title or easement a public recreation right-of-way along Big Grizzly Creek from Grizzly Valley Dam to the Middle Fork Feather River and that a statement to this effect be included in the report.

In addition to the comments contained herein, Mr. George McCammon transmitted views in a communication of January 13, 1965, addressed to Mr. Arthur J. Inerfield, Acting Chief of the Planning Management Branch.

/s/ W. T. Shannon

Director



APPENDIX E

Lake Davis

Operation Schedule

C State of California

O

P MEMORANDUM

Y

The Resources Agency

To : Honorable William E. Warne, Director Date: February 14, 1964
Department of Water Resources
P. O. Box 388
Sacramento, California

From : DEPARTMENT OF FISH AND GAME, 722 Capitol Mall, Sacramento,
California

Subject: WP - State of California, Department of Water Resources, Grizzly
Valley Project - Recommendations for Streamflow Releases to
Big Grizzly Creek, Plumas County.

During 1962 our Contract Services Section conducted a study of existing fishery conditions in Big Grizzly Creek below Grizzly Valley. Our findings are summarized as follows:

- (1) Big Grizzly Creek contains a good population of rainbow trout downstream from Grizzly Valley.
- (2) Approximately 1,000 angler-days of use occurs on Big Grizzly Creek below Grizzly Valley.
- (3) The best streamflow for trout production below Grizzly Valley is 18 cubic feet per second during the spawning season, mid-March to mid-June, and 8 c.f.s. during the remainder of the year.

The potential of the Grizzly Valley Project to enhance the stream below was analyzed and the following determinations were made:

- (4) The streamflow conditions listed in #3, above, would increase trout production in Big Grizzly Creek to a level capable of supporting 20,000 angler-days per annum.
- (5) Project streamflow enhancement conditions listed in #3, above, would benefit fisheries only to the mouth of Big Grizzly Creek. The release of flows sufficient to enhance fisheries in the Middle Fork Feather River below Big Grizzly Creek would have a detrimental effect on the fishery potential of Grizzly Valley Reservoir.

- (6) It is improbable that the increase in use indicated in #4, above, could be attained without provision for public access along Big Grizzly Creek from Grizzly Valley to the Middle Fork Feather River.

We anticipate that Grizzly Valley Reservoir, operated as a single-purpose recreation project would provide an excellent trout fishery. The moderate annual drawdown would permit relatively high fish production as compared to our more common, widely fluctuating cold-water reservoirs. The reservoir could support approximately 50,000 angler-days annually at a moderate fishery management cost with single-purpose operation.

Operated as a combination irrigation and recreation project, the reservoir would be drawn down substantially each year. This would seriously inhibit the reservoir's fish production capacity. To provide a satisfactory fishery under such conditions it would be necessary to make annual plants of subcatchable or catchable-sized trout. The cost of planting fish under this operational scheme would be relatively high. Funds for this management approach may not be available.

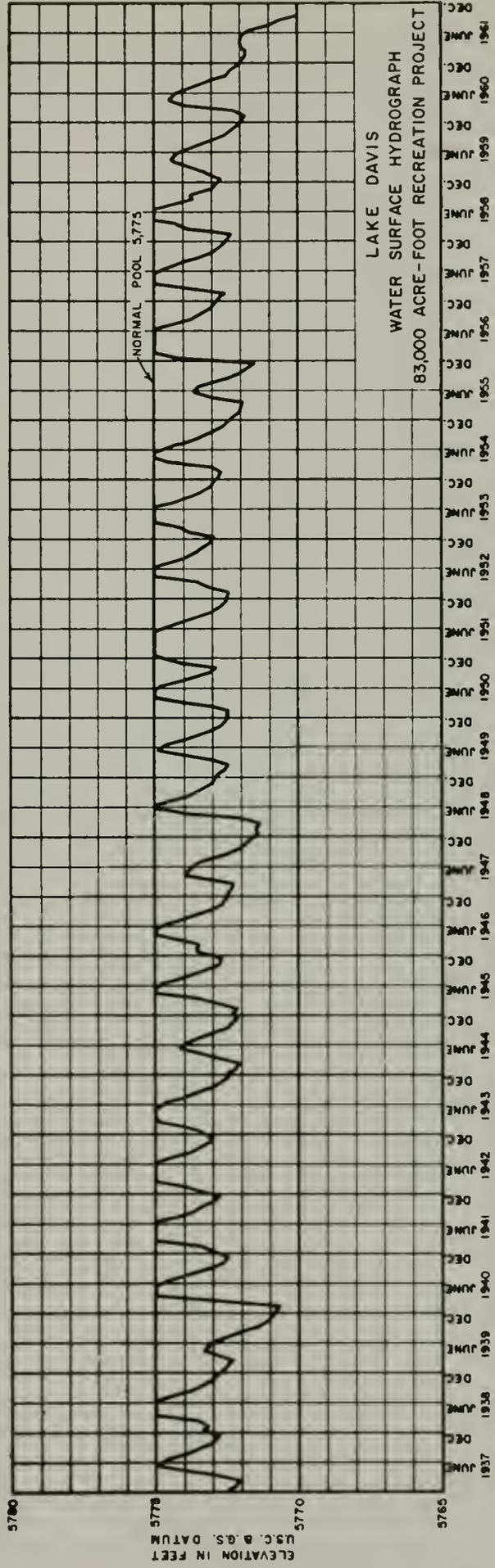
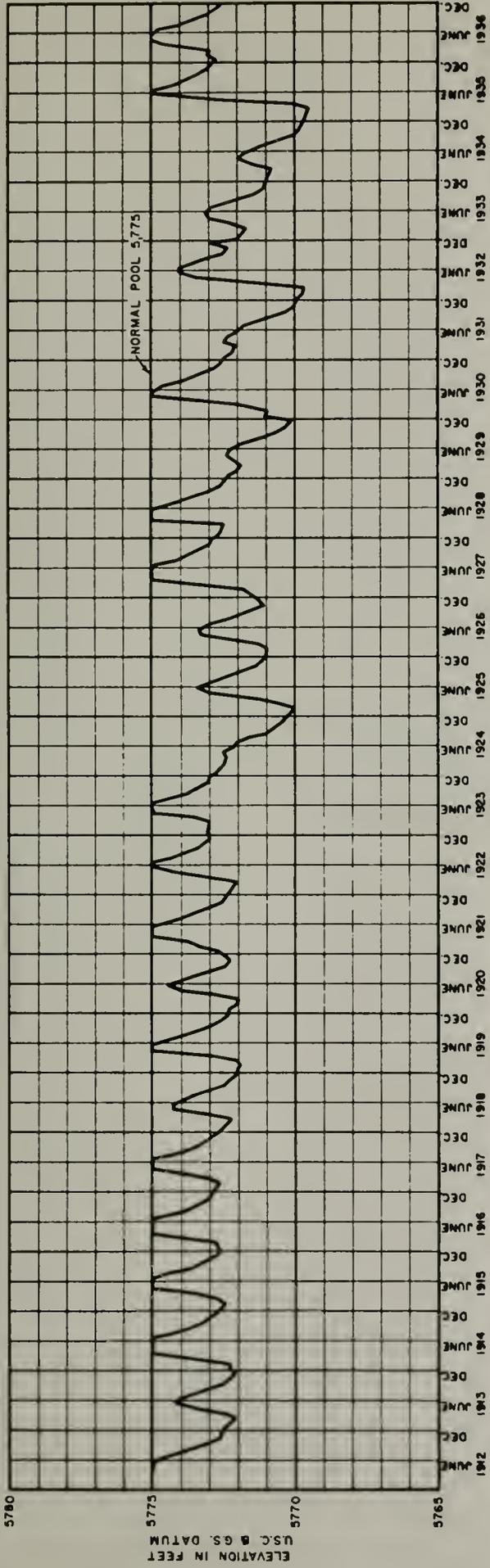
We recommend that releases from Grizzly Valley Reservoir be made for the enhancement of the fishery of Big Grizzly Creek according to the following schedule:

<u>Reservoir Storage on May 1, in acre-feet</u>	<u>Flow Release March 16-June 15 c.f.s.</u>	<u>Flow Release June 16-March 15 c.f.s.</u>
83,000	18	8
75,500 - 82,999	16	6
65,000 - 75,499	15	5
below 65,000	14	4

We recommend further that the multiple-level intake structure as described on page 5 of your project Scope of Design No. 620-F1 be incorporated in Grizzly Valley Dam to permit the release of water of temperatures suitable for downstream trout populations.

We recommend also that you acquire by fee, easement, or similar means, a public recreation right-of-way along Big Grizzly Creek from Grizzly Valley to the Middle Fork Feather River. We suggest that the benefits attendant with this acquisition far outweigh the associated costs.

Director



APPENDIX F

Population Projections
Statewide and Selected Counties
1960 - 2020

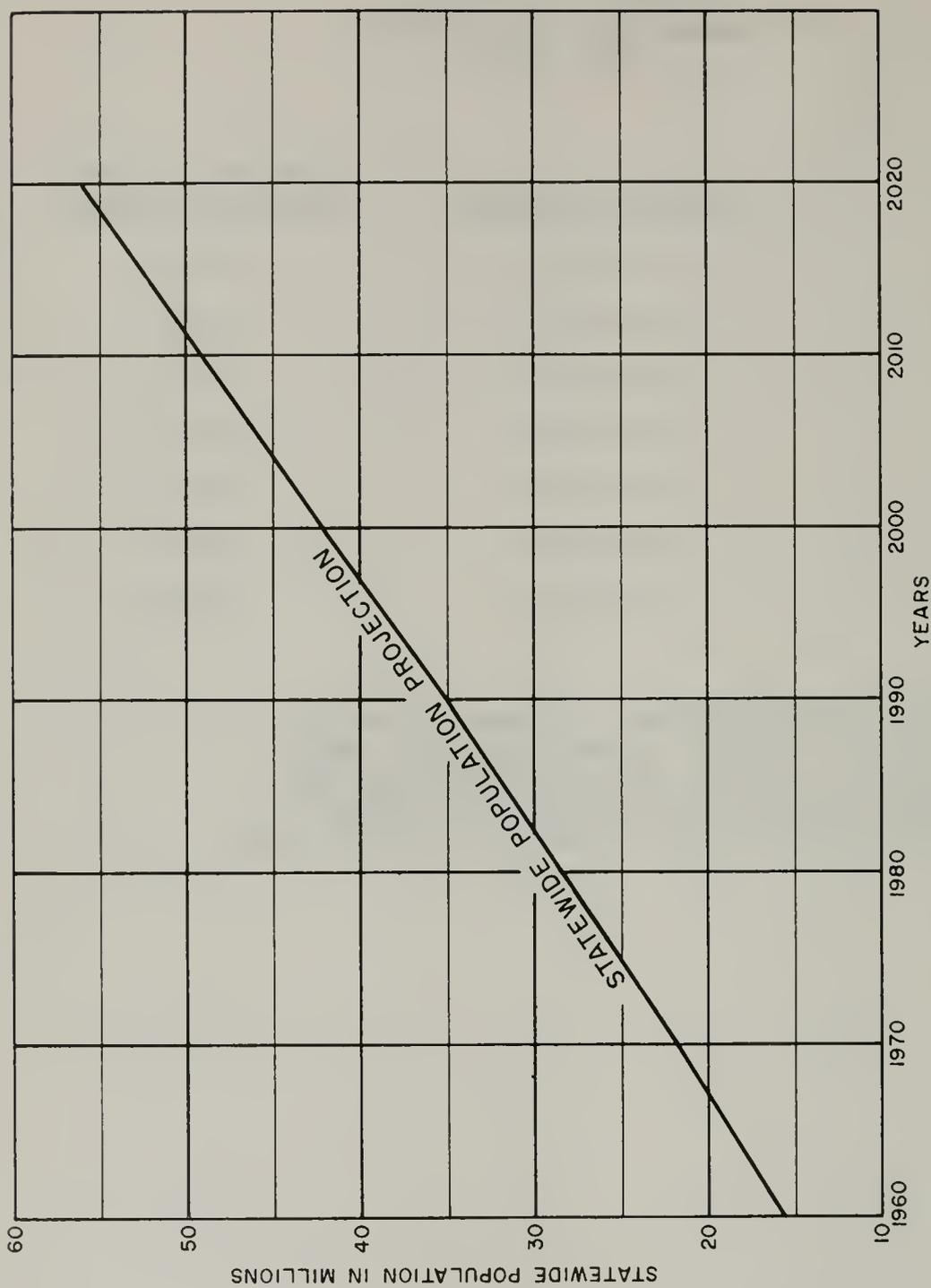


Population Projections
 Statewide and Selected Counties
 1960 - 2020

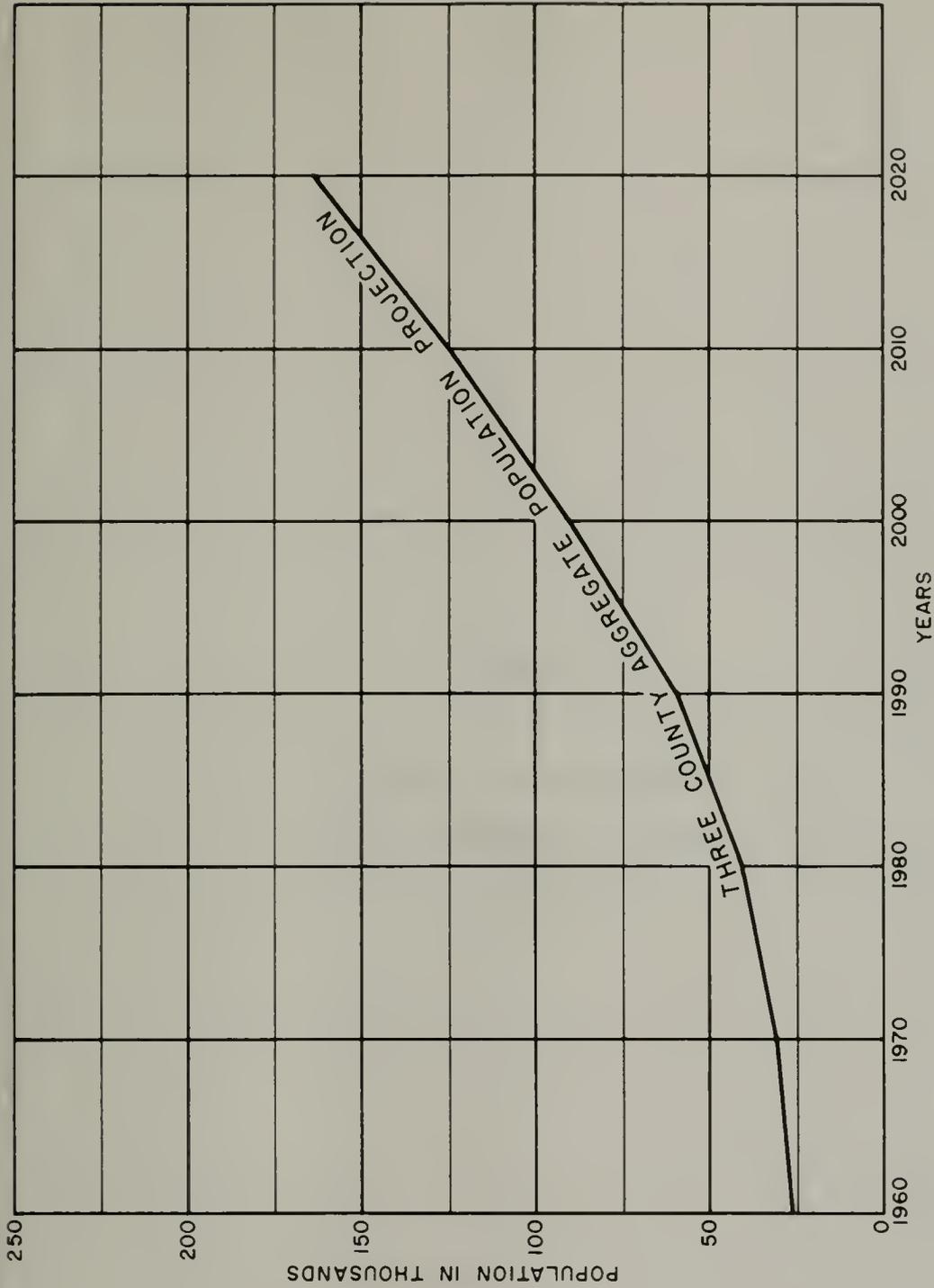
<u>Year</u>	<u>Statewide Population</u>	<u>Counties of Lassen, Plumas, and Sierra</u>
1960 <u>1/</u>	15,707,000	27,500
1970 <u>2/</u>	21,800,000	33,200
1980	28,300,000	42,500
1990	35,000,000	61,200
2000	42,100,000	90,500
2010	49,000,000	125,400
2020	55,900,000	167,400

1/ 1960 census figures from U. S. Bureau of Census.

2/ Population projections by the Department of Water Resources, Division of Resources Planning, 1960. These projections developed prior to release of census data by the U. S. Bureau of Census in 1960.



CALIFORNIA POPULATION PROJECTIONS 1960 - 2020
 (Adapted from Department Of Water Resources population projections.)



PROJECTIONS OF COMBINED POPULATIONS OF THE
 THREE COUNTIES OF LASSEN, PLUMAS AND SIERRA 1960-2020
 (Adapted from Department Of Water Resources population projections.)

APPENDIX G

Construction Cost Estimate
Initial Recreation Development
Lake Davis

Construction Cost Estimate
Initial Recreation Development
Lake Davis

Recapitulation

Grasshopper Flat Area	\$577,450
Valley Vista Area	<u>123,050</u>
TOTAL	\$700,500

LAKE DAVIS CONSTRUCTION COST ESTIMATE

GRASSHOPPER FLAT AREA

Scope

125 camp units

25 picnic units

8 comfort stations (flush type)

Beach with imported sand

Access roads and 95-car parking for beach and picnic areas with base and seal cost

Water intake and treatment system, reservoir tank and distribution system

Electrical system

Roadways, Camp Spurs, Parking Areas

Clearing - 6 acres @ \$1,000	\$ 6,000
Clearing - 3 acres @ \$1,600	4,800
Drainage - 11 culverts, misc. structures	10,900
Grading - 56,000 C.Y. @ \$1	56,000
Base & Prime 385,000 S.F. @ \$.19	73,150
Seal Coat 365,000 S.F. @ \$.04	14,600
Surveying (by contractor) 56 days @ \$160	8,960
Stripping 10,000' @ \$.10	<u>1,000</u>
Subtotal	\$175,410

Beach Development

Clearing - 1 acre @ \$350	\$ 350
Grading - 2 days @ \$500	1,000
Imported Material - 1,100 C.Y. @ \$6.50	<u>7,150</u>
Subtotal	\$ 8,500

Water System

Pumping System to Treatment Plant House

Discharge piping, 1-1/2" GSP, 140' @ \$3 (w/victaulic)	\$ 420
Pump, 5 hp and shed	1,600
Casing, 10" x 90' including end pieces @ \$12	1,080
Electrical conductors, 160 L.F. (3W) @ \$1.50	240
Casing access box including fittings	500
Casing support structures	<u>360</u>
	\$ 4,200

Treatment Plant

House and slab	\$ 1,800
Plant pkg. (45 GPM) fully auto. - Triplex	5,600
Electrical	1,000
Heater	200
Water meter	<u>200</u>
	8,800
Storage Tank and Accessories (30M)	8,200

LAKE DAVIS CONSTRUCTION COST ESTIMATE

GRASSHOPPER FLAT AREA

Scope

125 camp units

25 picnic units

8 comfort stations (flush type)

Beach with imported sand

Access roads and 95-car parking for beach and picnic areas with base and sea cost

Water intake and treatment system, reservoir tank and distribution system

Electrical system

Roadways, Camp Spurs, Parking Areas

Clearing - 6 acres @ \$1,000	\$ 6,000
Clearing - 3 acres @ \$1,600	4,800
Drainage - 11 culverts, misc. structures	10,900
Grading - 56,000 C.Y. @ \$1	56,000
Base & Prime 385,000 S.F. @ \$.9	73,150
Seal Coat 365,000 S.F. @ \$.04	14,600
Surveying (by contractor) 56 days @ \$160	8,960
Stripping 10,000' @ \$.10	<u>1,000</u>
Subtotal	\$175,410

Beach Development

Clearing - 1 acre @ \$350	\$ 350
Grading - 2 days @ \$500	1,000
Imported Material - 1,100 C.Y. @ \$6.50	<u>7,150</u>
Subtotal	\$ 8,500

Water System

Pumping System to Treatment Plant House

Discharge piping, 1-1/2" GSP, 140' @ \$3 (w/victaulic)	\$ 420
Pump, 5 hp and shed	1,600
Casing, 10" x 90' including end pieces @ \$12	1,080
Electrical conductors, 160 L.. (3W) @ \$1.50	240
Casing access box including fittings	500
Casing support structures	<u>360</u>
	\$ 4,200

Treatment Plant

House and slab	\$ 1,800
Plant pkg. (45 GPM) fully auto - Triplex	5,600
Electrical	1,000
Heater	200
Water meter	<u>20</u>

Storage Tank and Accessories (30M,

Distribution System

3,270 L.F. 3/4" GSP @ \$1.50	\$ 4,910
560 L.F. 1" GSP @ 1.80	1,010
290 L.F. 1-1/2" GSP @ \$2.00	580
160 L.F. 2" GSP @ \$2.30	370
1,280 L.F. 2-1/2" GSP @ \$2.60	3,330
4,170 L.F. 3" ACP @ \$3.00	12,510
5,220 L.F. 4" ACP @ \$3.50	18,270
43 Ea. 3/4" GV @ \$25	1,080
4 Ea. 1" GV @ \$30	120
6 Ea. 2" GV @ \$40	240
2 Ea. 1-1/2" GV @ \$35	70
10 Ea. 2-1/2" GV @ \$50	500
7 Ea. 3" GV @ \$65	460
5 Ea. 4" GV @ \$90	450
1 Ea. 3" CK. Valve @ \$100	100
43 Ea. HB @ \$25	1,080
6 Ea. WH @ \$75	450
4 Ea. Air Release Units @ \$60	<u>240</u>

\$45,770

Graded Access Roads to Plant and Reservoir Tank

Access road to tank

Grading - 1,400 C.Y. @ \$1.00	\$ 1,400
Clearing - 1 acre heavy timber	2,000

Drainage - 90 L.F. of 18" CMP (3) @ \$11	\$ 1,000
Subgrade prep., flares, ditching	<u>1,000</u>
Total cost of road	\$ 5,400

Service Road to treatment plant

3,200 S.F. @ \$.50	\$ 1,600
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\$ 7,000

Subtotal	\$ 73,970
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Sanitary Facilities *

4 - 300 Series C.S. W/leaching @ \$12,000	\$ 48,000
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3 - 200 Series C.S. @ \$9,500	<u>28,500</u>
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Subtotal	\$ 76,500
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Camp Units (125)

Clearing - 125 @ \$25	\$ 3,130
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Stoves - 125 @ \$120	15,000
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Tables - 125 @ \$130	16,250
----------------------	--------

Garbage - 125 @ \$20	2,500
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Barriers - 125 @ \$30	<u>3,750</u>
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Subtotal	\$ 40,630
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Picnic Units (25)

Clearing - 25 @ \$15	\$ 375
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Stoves - 7 @ \$120	840
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* At the request of the U. S. Forest Service, the number of sanitary facilities has been increased from seven to eight. Sufficient funds exist under the contingency item of this cost estimate to construct the additional sanitary facility.

Tables - 25 @ \$130	\$ 3,225
Garbage Cans - 6 @ \$20	<u>120</u>
Subtotal	\$ 4,560

Signs

\$400,020 @ 2%	<u>\$ 8,000</u>
Subtotal	\$ 8,000

Electrical System

Anticipated payment for share to present users	\$ 2,000
Deposit with Utility Company	1,300
3 Service Poles @ \$900	2,700
3,000 L.F. D.B. Cable @ \$2	6,000
15 Pull Boxes @ \$30	<u>450</u>
Subtotal	<u>\$ 12,450</u>
TOTAL	\$400,020

Contingency 5%	\$ 20,030
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Escalation 10%	40,000
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Division of Beaches and Parks' Design	37,400
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Office of Architecture and Construction - 20%	<u>80,000</u>
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TOTAL	\$577,450
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VALLEY VISTA AREA

Scope

- 3-lane concrete launching ramp
- 25-car and trailer parking lot w/base and seal cost
- one 2-fixture unit comfort station
- Water system with infiltration intake and chlorination
- 3,800 L.F. of two-lane access roadway

Roadway and Parking Area

Clearing - 4 acres @ \$800	\$ 3,200
Drainage - Misc.	2,500
Grading - 8,000 C.Y. @ \$1	8,000
Base & Prime - 138,000 S.F. @ \$.19	26,200
Seal Coat - 134,000 S.F. @ \$.04	5,400
Surveying - 11 days @ \$160	1,760
Stripping	<u>600</u>
Subtotal	\$ 47,660

Boat Ramp

Clearing - 0.2 Acres @ \$800	\$ 160
Grading - 900 C.Y. @ \$1	900
Base - 5,500 S.F. @ \$.18	1,000
Concrete - 100 C.Y. @ \$60	6,000
Navigational Controls	<u>240</u>
Subtotal	\$ 8,300

Sanitary Facilities

One 2-fixture unit comfort station (pump out)	\$ 3,500
Subtotal	\$ 3,500

Water System

Intake and infiltration system

Trenching - 120 C.Y. @ \$5	\$ 600
Gravel - 120 C.Y. @ \$5	600
Pipe - 100' @ \$4	400
Intake Structure	<u>250</u>
	\$ 1,850

Pumping system and hydropneumatic tank

Discharge pipe - 300 L.F. 1-1/2" GSP @ \$3	\$ 900
Pump - 2 hp. and sled	1,200
Casing - 180 L.F. 10" W.S. @ \$12	2,160
Electrical Conductors - 300 L.F. (3W) @ \$1.50	450
Casing access box, complete	500
1,500 gal. pneumatic tank and fittings	<u>2,200</u>
	\$ 7,410

Chlorination, electrical, and housing

House and slab	\$1,900
Chlorinator system W/water meter	1,000

Electrical	\$1,000	
Heater	270	
800 gal. LPG Tank	1,000	
5 KW Generator	1,200	
Fence	440	
Painting and site work	<u>700</u>	
		\$ 7,510

Distribution system

520' 3/4" GSP @ \$1.50	\$ 780	
70' 1" GSP @ \$1.80	126	
190' 2-1/2" GSP @ \$2.60	494	
3 Hose bibb & fountains @ \$60	180	
1 Wharf hydrant @ \$75	75	
2 2-1/2" Gate valves @ \$50	100	
3 3/4" Gate valves @ \$25	<u>75</u>	
		\$ <u>1,830</u>
Subtotal		\$ 18,600

Signs, Barriers, Garbage Containers, Etc.

Lump Sum Estimate	<u>\$ 1,550</u>
Subtotal	<u>\$ 1,550</u>
TOTAL	\$ 79,610
Contingency 5%	\$ 3,980
Escalation 10%	7,960

Division of Beaches and Parks' Design	\$ 15,600
Office of Architecture and Construction 20%	<u>15,900</u>
TOTAL	\$123,050





LOCATION OF
LAKE DAVIS

LEGEND

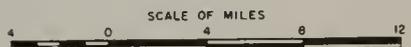
— BASIN BOUNDARY

TO RENO
16 MILES

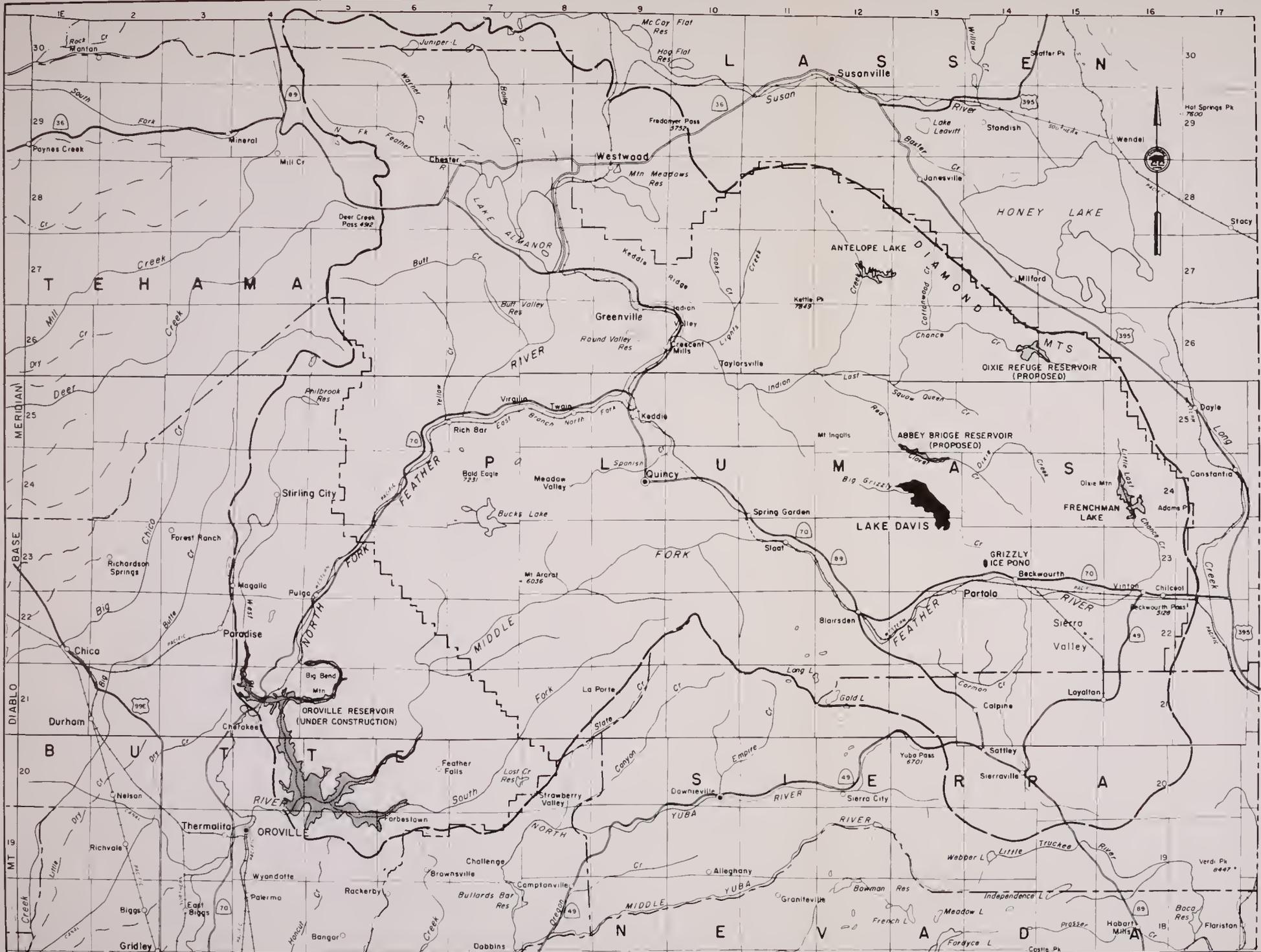
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF PARKS AND RECREATION
DIVISION OF BEACHES AND PARKS

VICINITY MAP
LAKE DAVIS
FEATHER RIVER BASIN

1965





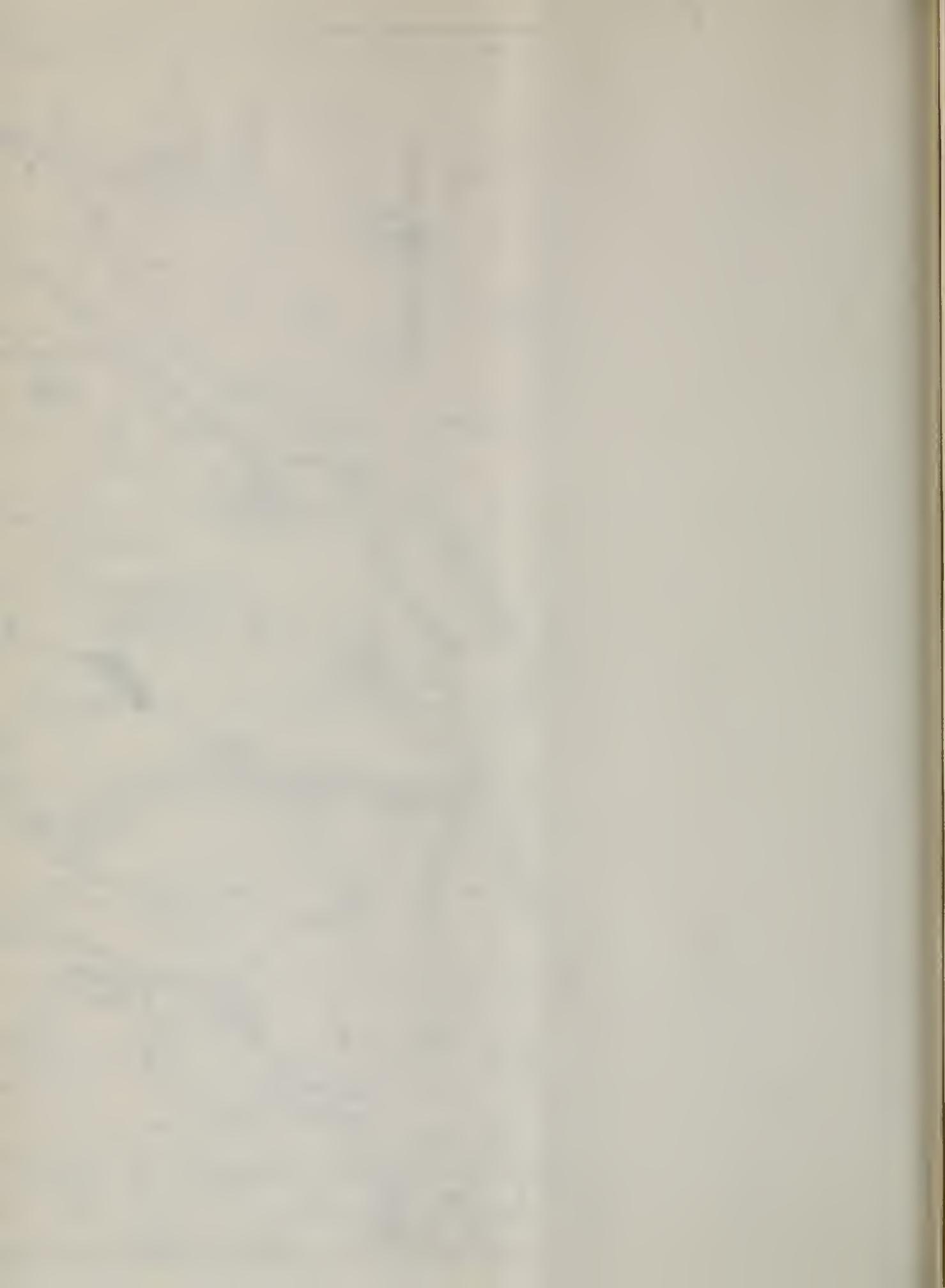


LEGEND
 ——— BASIN BOUNDARY

STATE OF CALIFORNIA
 THE RESOURCES AGENCY
 DEPARTMENT OF PARKS AND RECREATION
 DIVISION OF BEACHES AND PARKS
 VICINITY MAP
LAKE DAVIS
 FEATHER RIVER BASIN
 1965



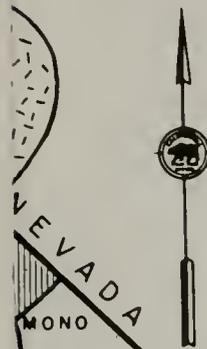
TO RENO
 16 MILES



STATE OF CALIFORNIA
 THE RESOURCES AGENCY
 DEPARTMENT OF PARKS AND RECREATION
 DIVISION OF BEACHES AND PARKS

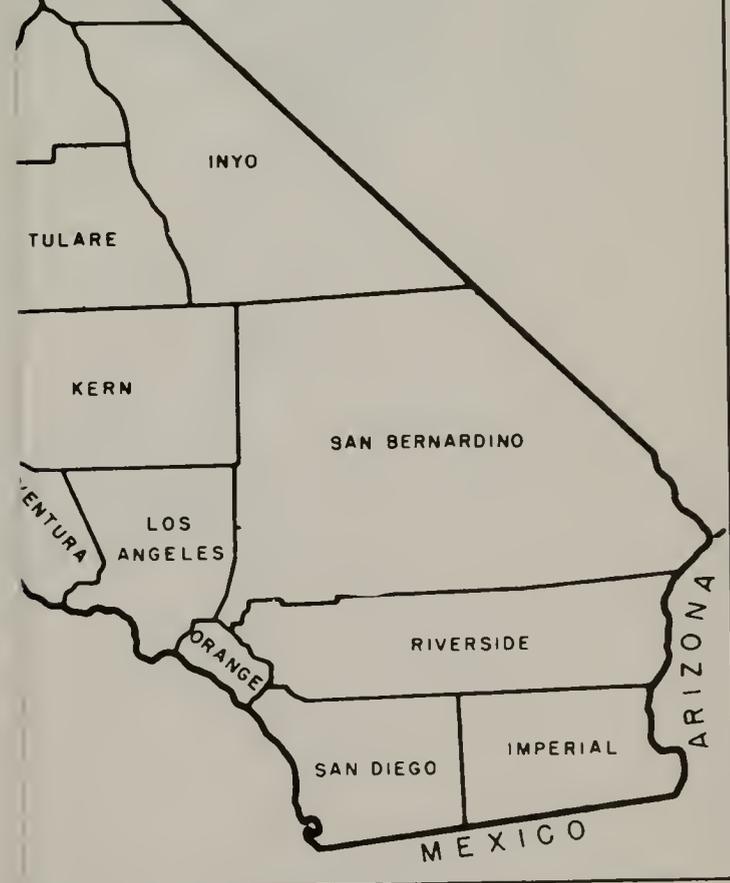
USER ORIGIN OF RECREATIONISTS
 VISITING FRENCHMAN LAKE
 1963

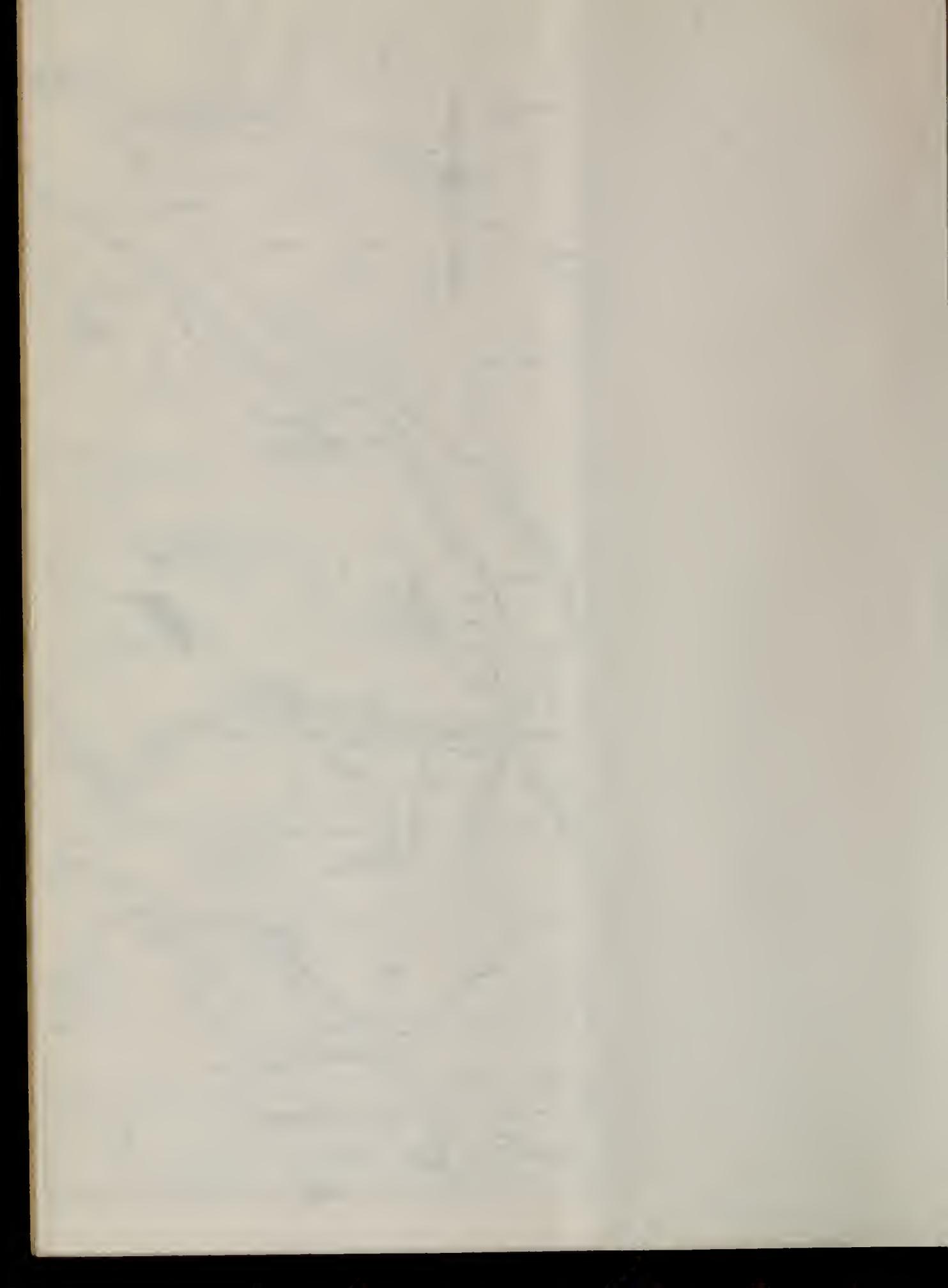
LOCATION OF
 FRENCHMAN LAKE



LEGEND

	OVERNIGHT USE	DAY USE
	22%	39%
	51%	13%
	6%	0%
	21%	48%
	100%	100%





OREGON

STATE OF CALIFORNIA
 THE RESOURCES AGENCY
 DEPARTMENT OF PARKS AND RECREATION
 DIVISION OF BEACHES AND PARKS

USER ORIGIN OF RECREATIONISTS
 VISITING FRENCHMAN LAKE

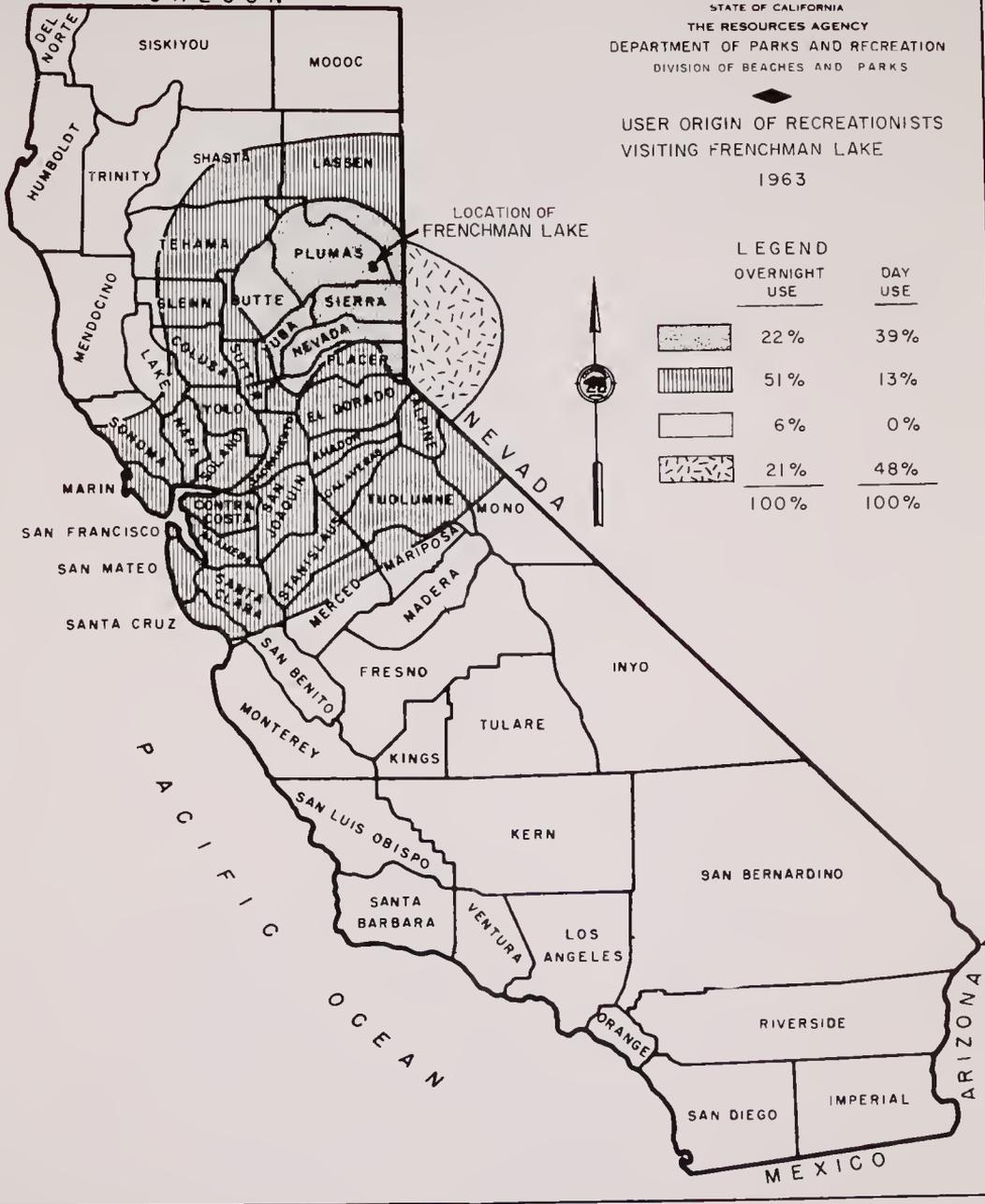
1963

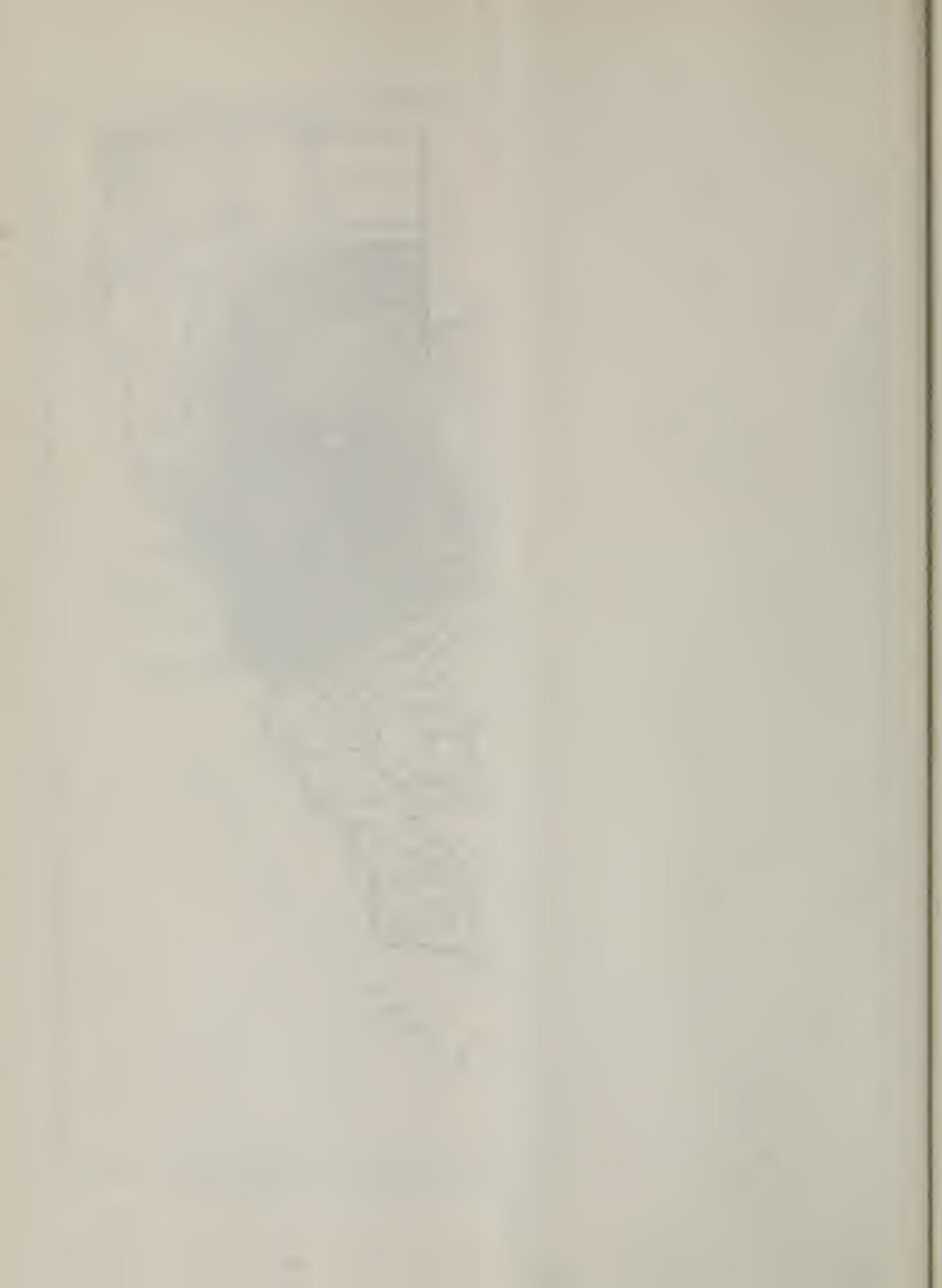
LOCATION OF
 FRENCHMAN LAKE

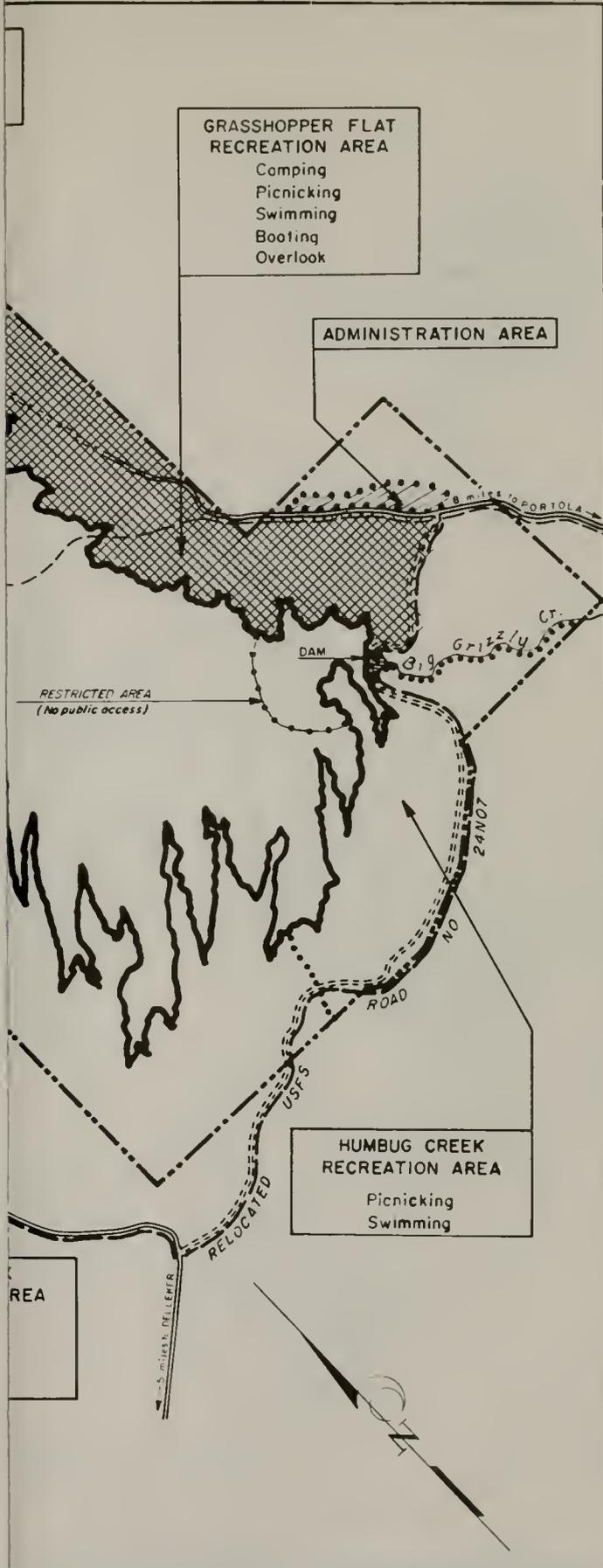
LEGEND

OVERNIGHT USE	DAY USE
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	22%	39%
	51%	13%
	6%	0%
	21%	48%
100%		100%

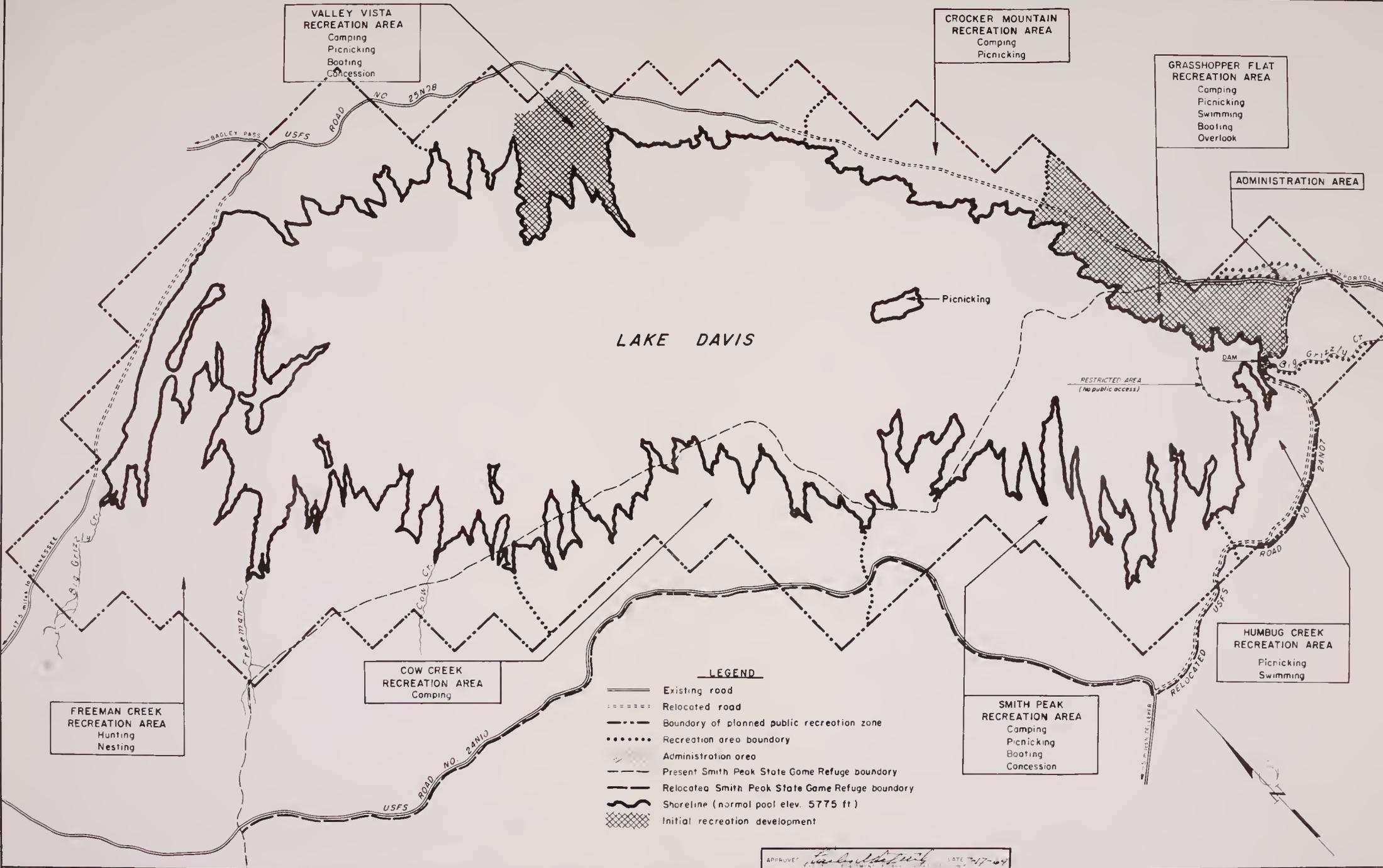






<p>LAKE DAVIS RECREATION LAND USE PLAN</p>	DRAWING NO	SHEET
	WR - 117	1
	FILE NO	OF
	DISTRICT	1



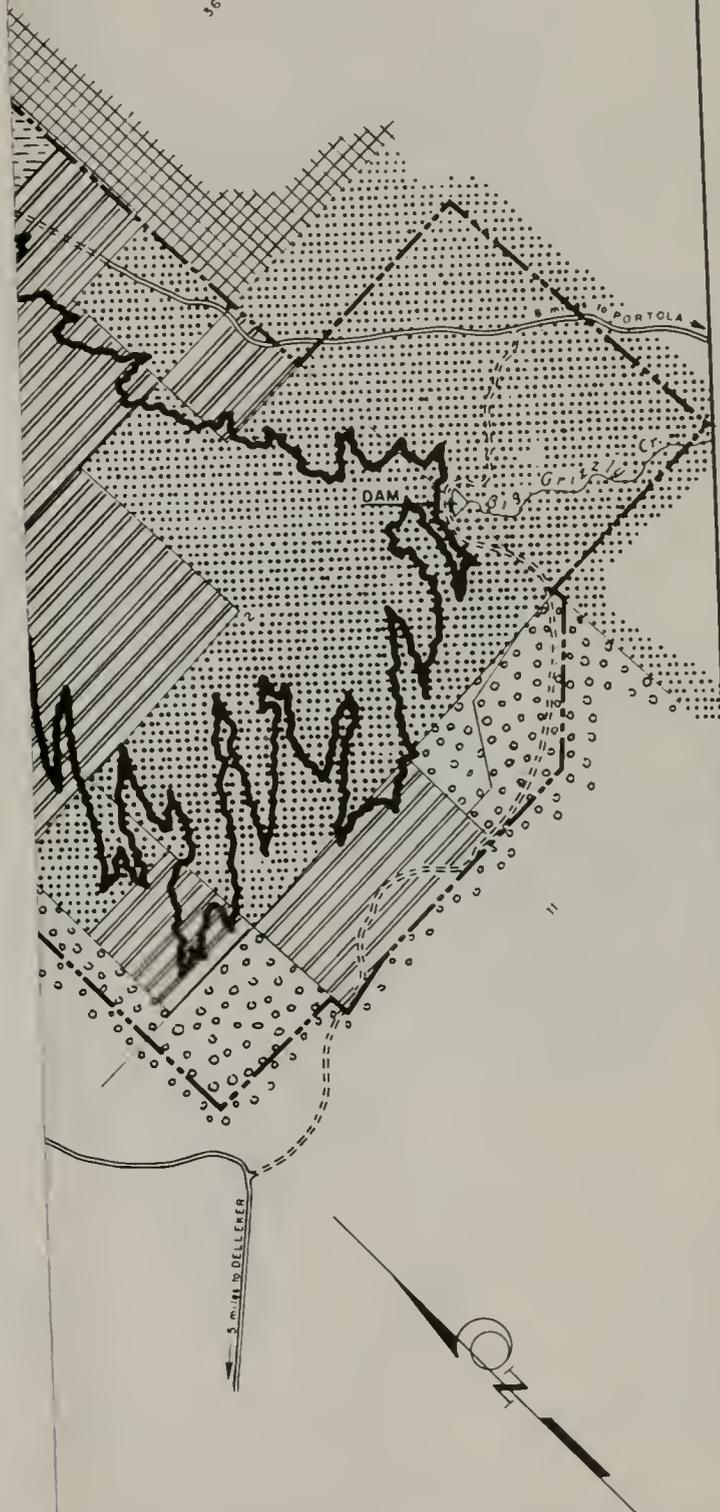


- LEGEND**
- Existing road
 - - - - - Relocated road
 - Boundary of planned public recreation zone
 - . - . - . Recreation area boundary
 - Administration area
 - . - . - . Present Smith Peak State Game Refuge boundary
 - - - - - Relocated Smith Peak State Game Refuge boundary
 - Shoreline (normal pool elev. 5775 ft)
 - Initial recreation development

REVISIONS NAME CHANGE 11-2-64 P.C.S.		BY P.C.S.	DATE 11-2-64	SCALE 1" = 1000'	CONTOUR INT. 2000 feet	SURVEYED BY: STAFF DATE: 1964	DESIGNED BY: STAFF DATE: 1964	REVIEWED BY: STAFF DATE: 1964	TRACED BY: STAFF DATE: 1964	DRAWN BY: STAFF DATE: 1964	CHECKED BY: STAFF DATE: 1964	REVIEWED BY: STAFF DATE: 1964	RECOMMENDED BY: Robert B. Stalch DATE: 7-15-64	APPROVED: [Signature] DATE 7-17-64	RESOURCES AGENCY OF CALIFORNIA DIVISION OF BEACHES AND PARKS DEPARTMENT OF PARKS AND RECREATION	LAKE DAVIS RECREATION LAND USE PLAN	DRAWING NO. #R-117	SHEET 1 OF 1
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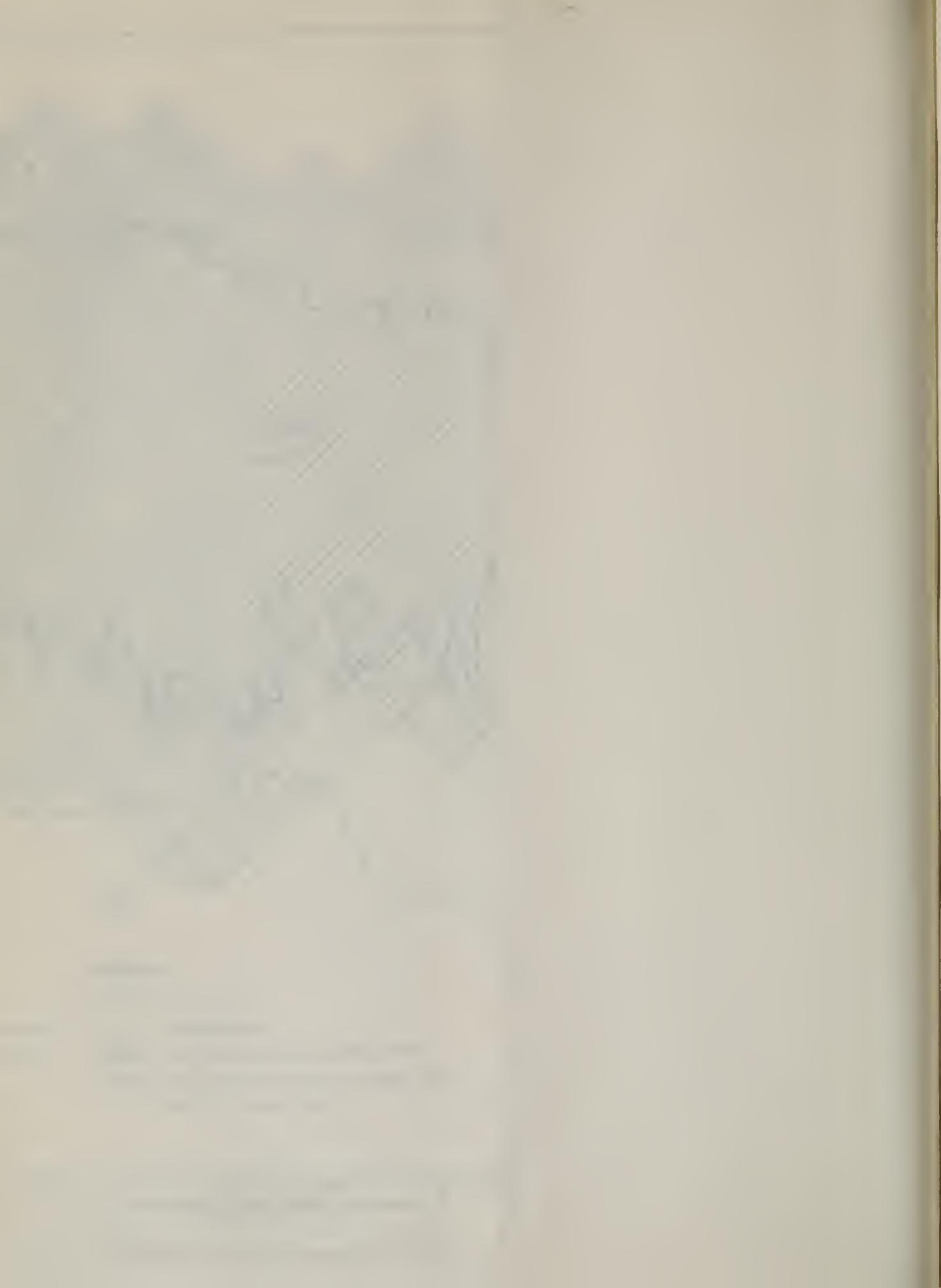
36



LAKE DAVIS
PROPERTY STATUS MAP

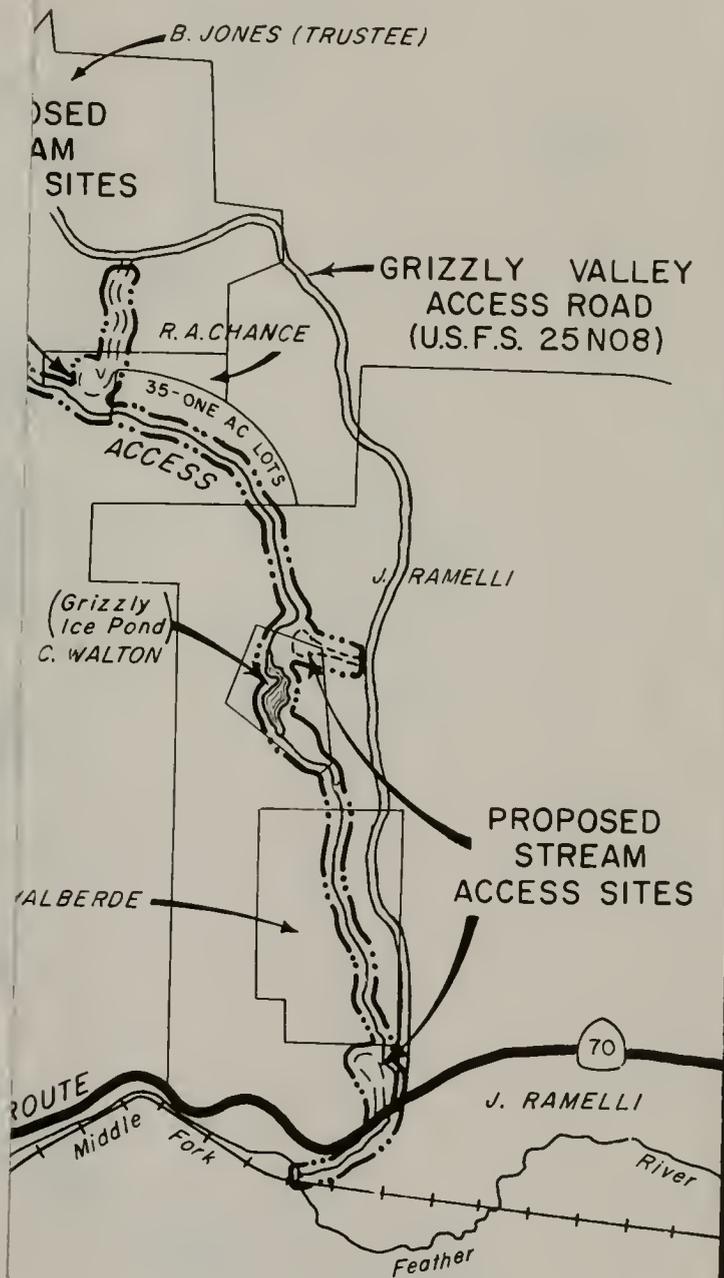
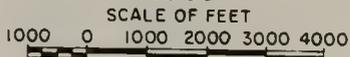
DRAWING NO WR-108	SHEET OF
FILE NO	
DISTRICT	





STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DELTA BRANCH
LAKE DAVIS
RECREATION DEVELOPMENT PLAN

BIG GRIZZLY CREEK PUBLIC ACCESS
(TRUSTEE) 1965

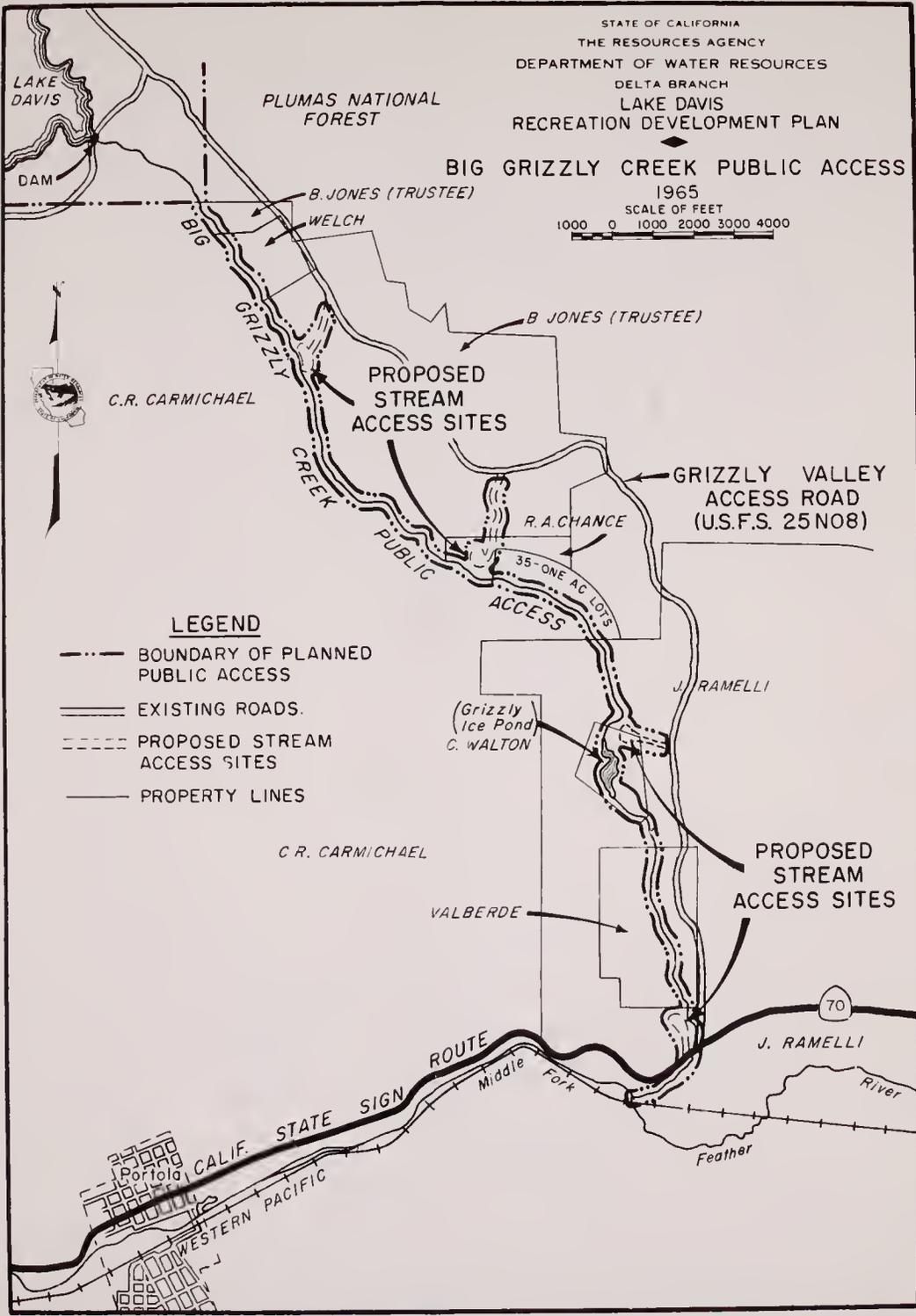




STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DELTA BRANCH
LAKE DAVIS
RECREATION DEVELOPMENT PLAN

BIG GRIZZLY CREEK PUBLIC ACCESS

1965
SCALE OF FEET
1000 0 1000 2000 3000 4000



LAKE DAVIS

PLUMAS NATIONAL FOREST

DAM

B. JONES (TRUSTEE)

WELCH

BIG

GRIZZLY

GRIZZLY CREEK

PROPOSED STREAM ACCESS SITES

B. JONES (TRUSTEE)

C.R. CARMICHAEL

GRIZZLY VALLEY ACCESS ROAD (U.S.F.S. 25 N08)

R. A. CHANCE

35- ONE AC LOTS

ACCESS

J. RAMELLI

(Grizzly Ice Pond)
G. WALTON

PROPOSED STREAM ACCESS SITES

C. R. CARMICHAEL

VALBERDE

70

J. RAMELLI

CALIF. STATE SIGN ROUTE

Middle Fork

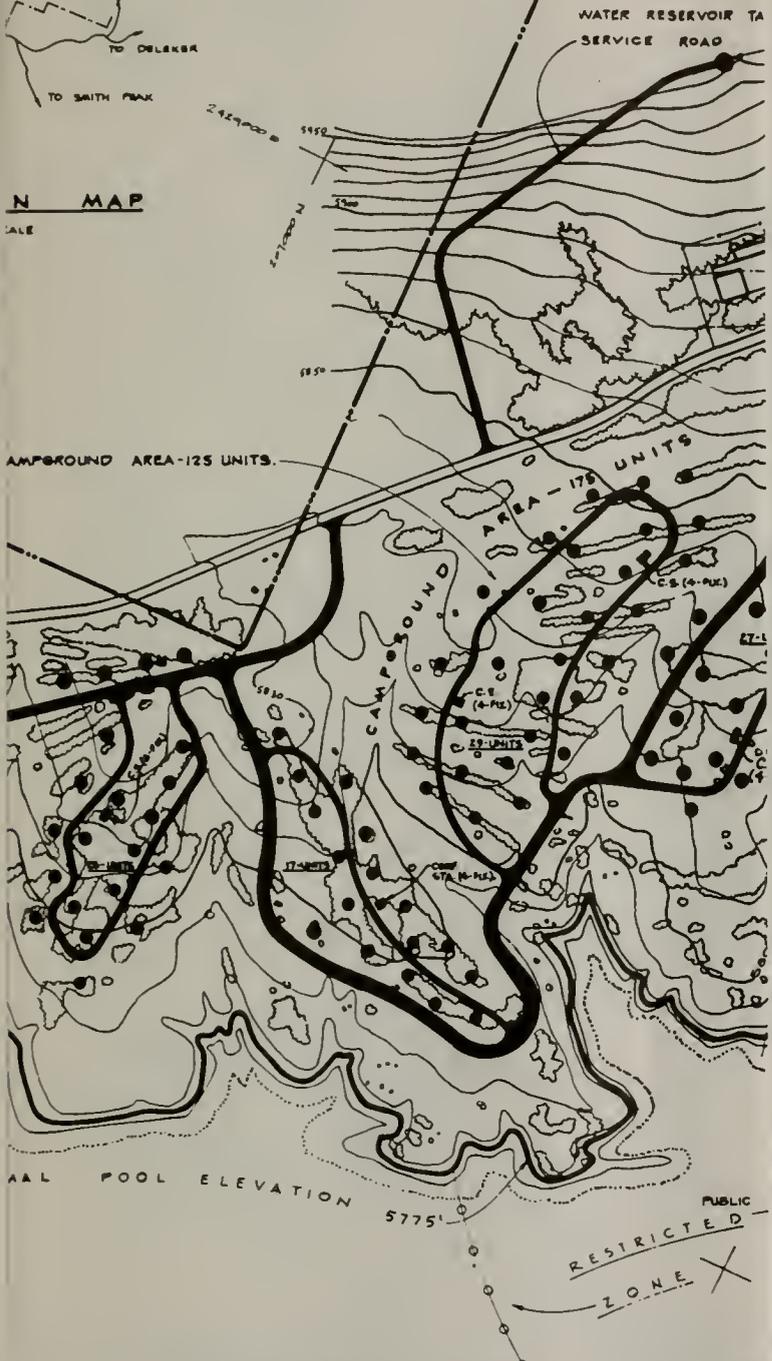
Feather River

Portola

WESTERN PACIFIC



SHEET
 TO PORTOLA - 8 MI
 BIG GRIZZLY CREEK
 GRASSHOPPER FLAT AREA
 GRIZZLY VALLEY DAM



NO
 DREST
 E ROAD
 08

N MAP
 SCALE

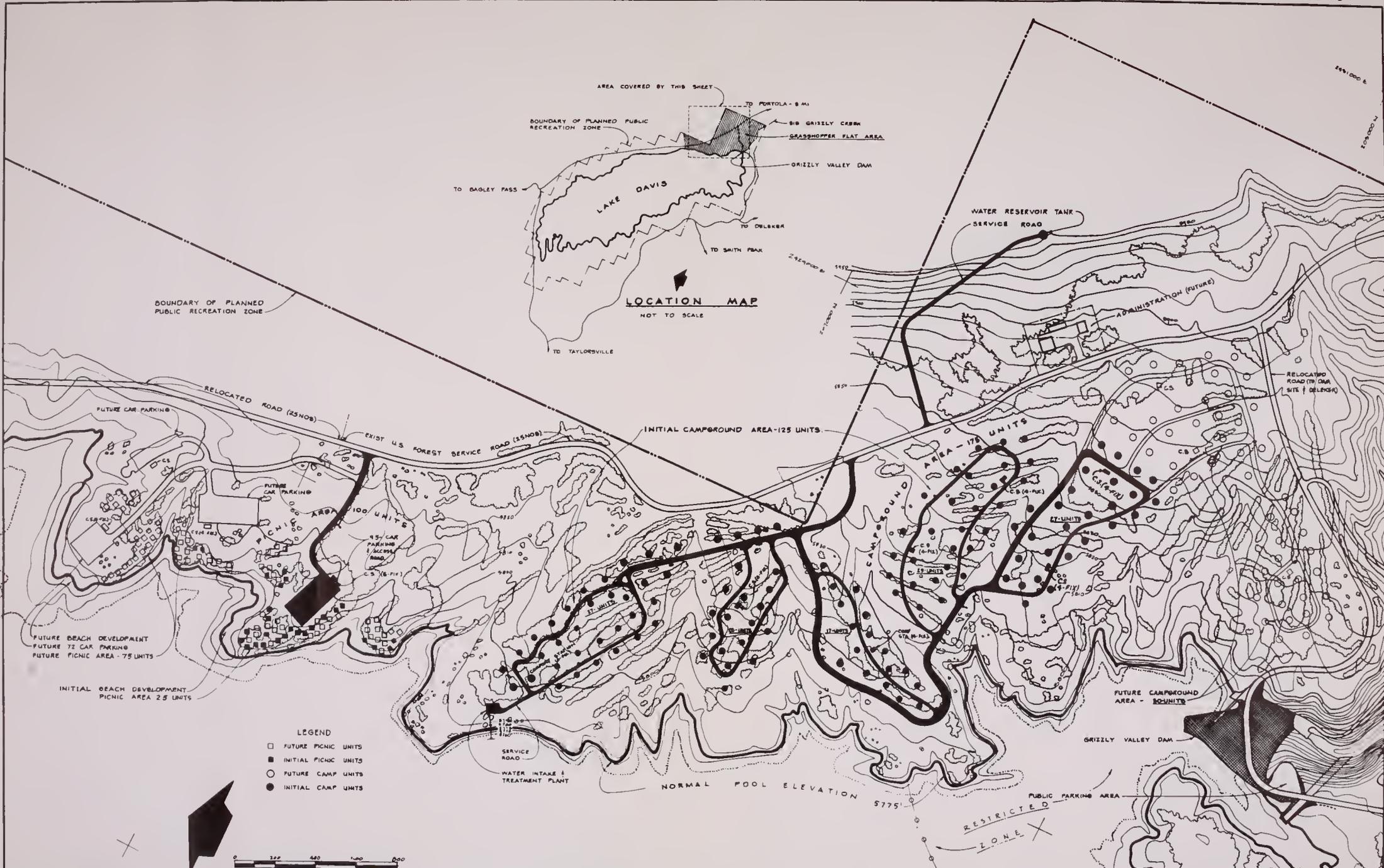


BY STATE AGRA

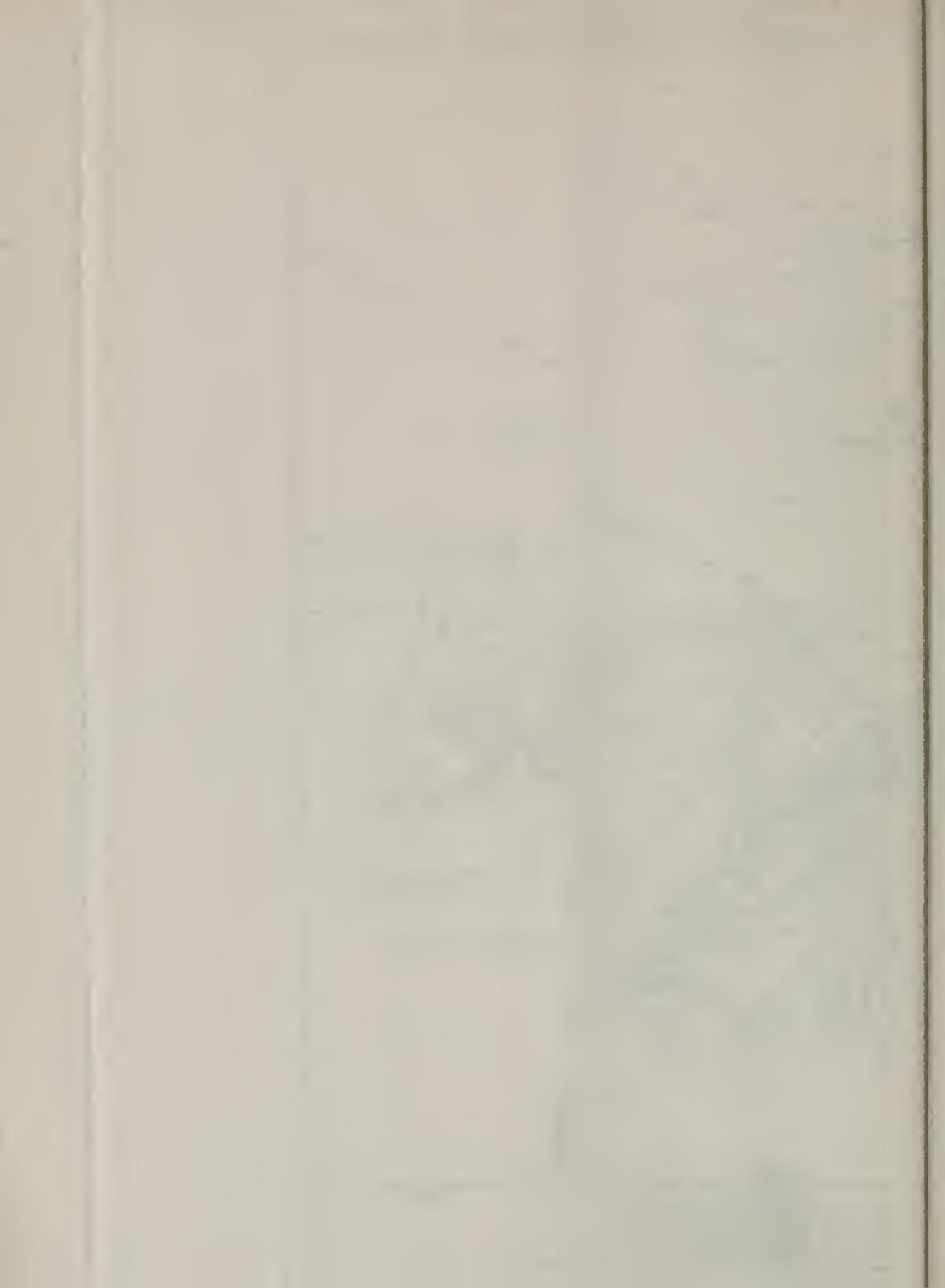
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 ZONE

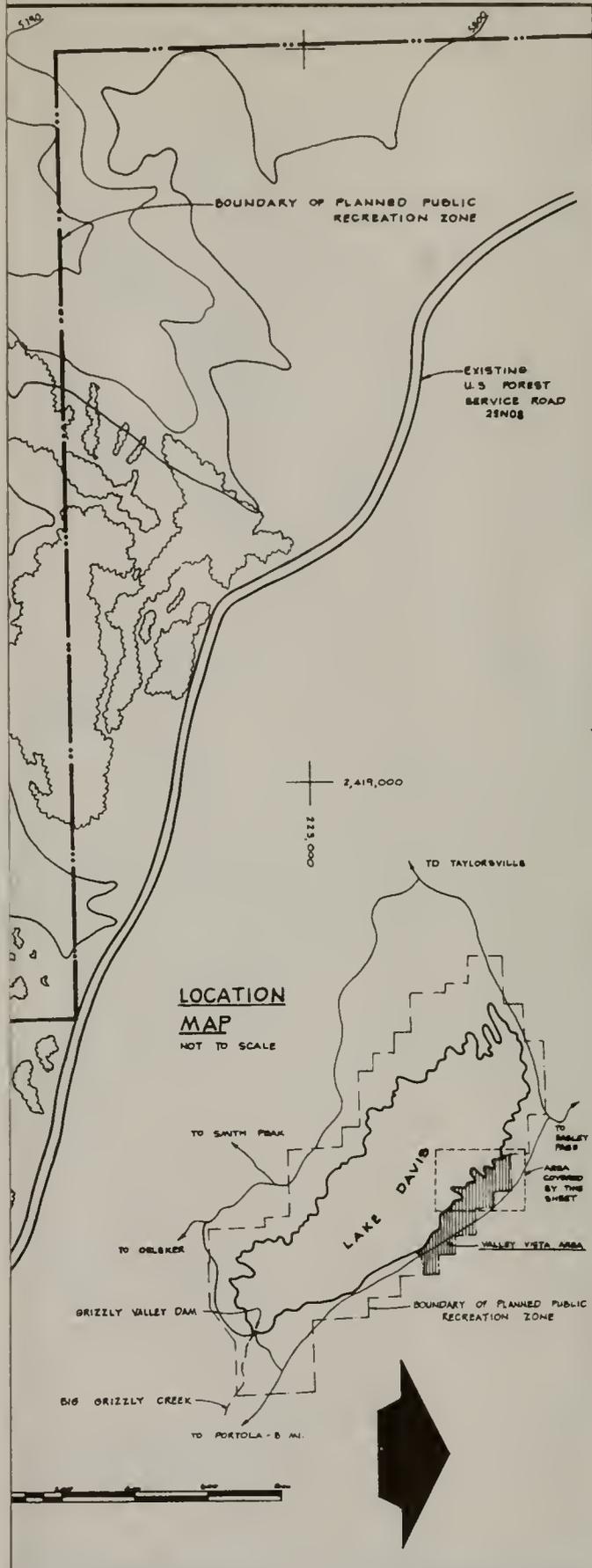
RESOURCES AGENCY OF CALIFORNIA		GR.
DIVISION OF BEACHES AND PARKS		
DEPARTMENT OF PARKS AND RECREATION		DE
APPROVED _____	DATE 1/21/64	
CHIEF DIVISION OF BEACHES AND PARKS		





REVISIONS		BY	DATE	SCALE 1" = 200'	CONTOUR INT 10'	APPROVED	DATE 1/27/64	LAKE DAVIS GRASSHOPPER FLAT AREA DEVELOPED AREA PLAN	DRAWING NO R-0V-3	SHEET 1 OF 1
						RESOURCES AGENCY OF CALIFORNIA DIVISION OF BEACHES AND PARKS DEPARTMENT OF PARKS AND RECREATION			FILE NO V4-A DISTRICT THREE	



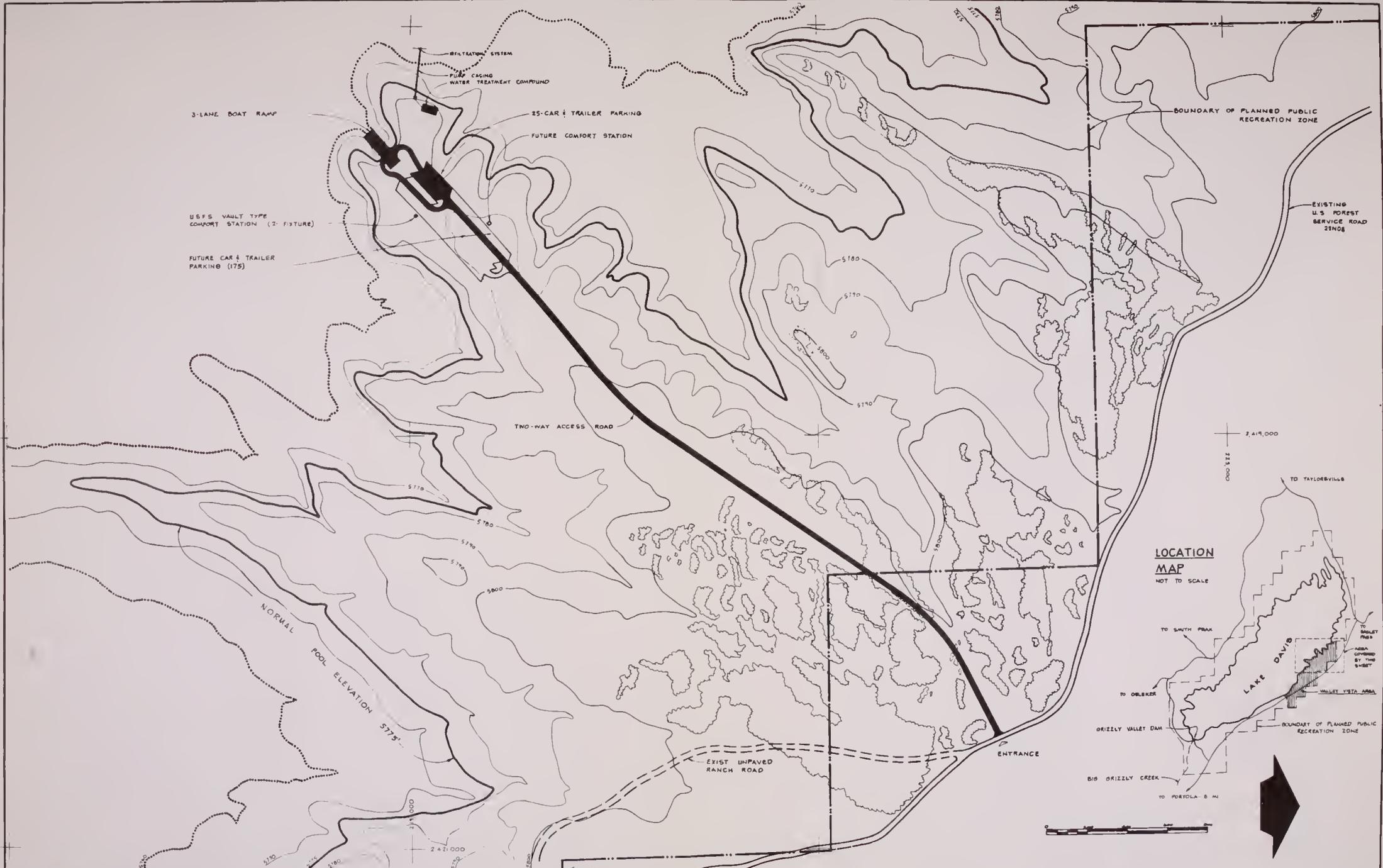


**LOCATION
MAP**
NOT TO SCALE

**LAKE DAVIS
VALLEY VISTA AREA
VELOPED AREA PLAN**

DRAWING NO R-6V-5	SHEET 1 OF 1
FILE NO V4-A	
DISTRICT THREE	

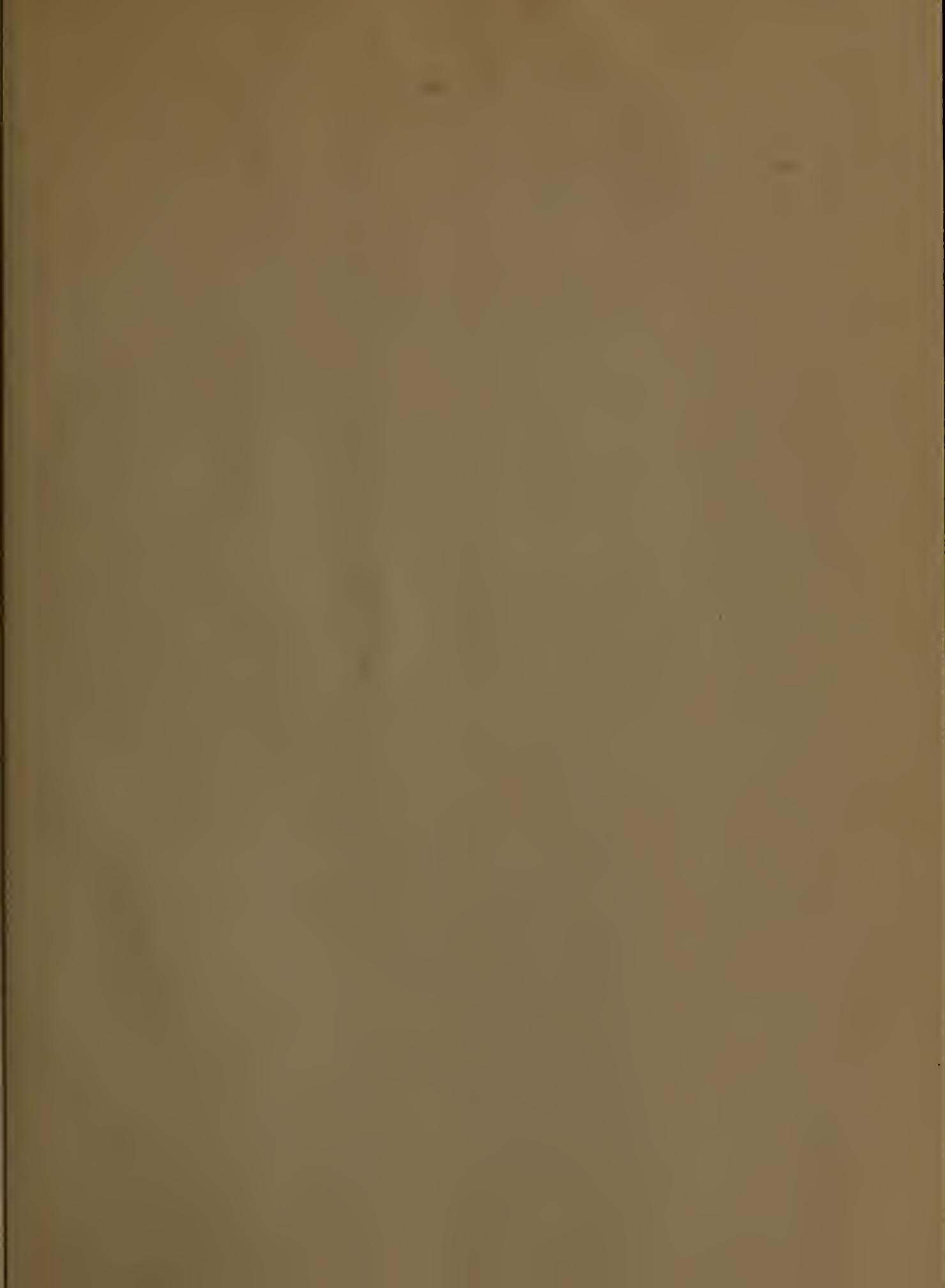




REVISIONS		BY	DATE	SCALE 1" = 200'	CONTOUR INT 10'	SUPERVISOR DESIGNED BY TRACED BY CHECKED BY		DESIGNED BY DATE 7/64 DRAWN BY DATE 9/64 CHECKED BY DATE 7/64 RECOMMENDED DATE 12/64		RESOURCES AGENCY OF CALIFORNIA DIVISION OF BEACHES AND PARKS DEPARTMENT OF PARKS AND RECREATION		LAKE DAVIS VALLEY VISTA AREA DEVELOPED AREA PLAN		DRAWING NO R-GV-5 FILE NO V-A DISTRICT THREE	SHEET 1 OF 1
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