



NEBRASKA PUBLIC LIBRARY COMMISSION
STATE CAPITOL
LINCOLN, NEBRASKA

NEBRASKA PUBLICATIONS
CLEARINGHOUSE

JUL 2 1974

NEBRASKA LIBRARY COMMISSION
LINCOLN, NEBRASKA 68508

OUTDOOR RECREATION FOR NEBRASKA

OUTDOOR RECREATION FOR NEBRASKA

State of Nebraska
Norbert T. Tiemann, Governor

Nebraska Game and Parks Commission
M. O. Steen, Director

Commission Members:

Lee Wells, Chairman
C. E. Wright
M. M. Muncie
James Columbo
Francis Hanna
Dr. Bruce E. Cowgill
Floyd Stone

1969



JUL 2 1974

NEBRASKA LIBRARY COMMISSION
LINCOLN, NEBRASKA 68508

NEBRASKA PUBLIC LIBRARY COMMISSION
STATE CAPITOL
LINCOLN, NEBRASKA

INTRODUCTION

"The best laid plans of mice and men oft go awry." So goes the old adage, which, though true, in no way discounts the value of thoughtful, long range planning. With the many demands placed on our outdoor recreation resources, planning is a must. Needs, opportunities, and alternatives must be identified. This publication is a step in the planning program for outdoor recreation in Nebraska. It represents a condensation of the "second-generation" Comprehensive Outdoor Recreation Plan for Nebraska. It is designed for easy use by public officials, citizens, or others who may not have time to read the entire plan.

Basic elements include: (1) goals and objectives, (2) an analysis of the present and future demand for outdoor recreation by activity, (3) an inventory of the outdoor recreation resources and facilities, including those administered by all units of government and, in so far as possible, the private sector, and (4) an identification of outdoor recreation needs by relating the present supply to current and future demand.

An acquisition and capital improvement program, as projected by federal, state and local agencies, has been developed for fiscal years 1969 through 1973. The key to execution of the program of implementation is adequate financing. All potential financial resources, including various federal grant-in-aid programs, must be used if adequate funding is to be realized. The degree to which we keep pace with our growing needs will depend upon future priorities, appropriations, and authorizations by all levels of government.

CONTENTS

Introduction.....	3
State of Nebraska.....	4
Goals and Objectives.....	6
Demand for Outdoor Recreation.....	12
Supply of Outdoor Recreation Resources.....	16
Needs for Outdoor Recreation.....	22
Facility and Program Needs by Activity.....	28
Implementation.....	46
Summary.....	58

Prepared by the Nebraska Game and Parks Commission

THE STATE OF NEBRASKA

Approximately 450 miles across and slightly more than 200 miles wide between its north and south boundaries, Nebraska ranks 15th in size of the contiguous states. With a 77,000 square mile area, it is larger than eight smaller eastern states combined. Nebraska has some 40,000 bodies of water ranging in size from small farm ponds to Lake McConaughy, a reservoir of 35,000 surface acres.

Varying in altitude from a little over 800 feet in the east to over a mile in the west, the landscape varies from metropolitan areas to intensive farming areas, vast range and wheatlands to broadleaf woodlands, mid-altitude coniferous forests to semi-desert areas, the unique Sand Hills and arid Badlands. Over 97 percent is in farms, with acreage about equally divided between cropland and grazing land. About two percent is forest and woodland, occurring primarily along stream courses.

One word can sum up Nebraska's major problem in recreation resource management—"distribution". Typical of many western states, people have settled in a relatively small area of the state. Intense local demands for outdoor recreation areas are a problem near the population centers, while the greatest resources for recreational uses are located in low population and excessively distant areas.

Nebraska's average population is approximately 19 people per square mile. However, 4 contiguous counties in eastern Nebraska exceed 340 people per square mile. Over half of the state's total population is found on about 12 percent of the land area. On the other hand, Nebraska has 11 counties with less than 2 persons per square mile and 20 counties with less than 8 per square mile.

Climate

Nebraska is located in the center of a large land mass and at such latitudes that a variety

of weather can be expected. As a consequence, nearly the entire gamut of outdoor recreational activities is enjoyed at one time of the year or another. Summers and winters are vigorous, spiked with short periods of intense heat and cold, but separated by long and stimulating springs and falls found only in the Great Plains.

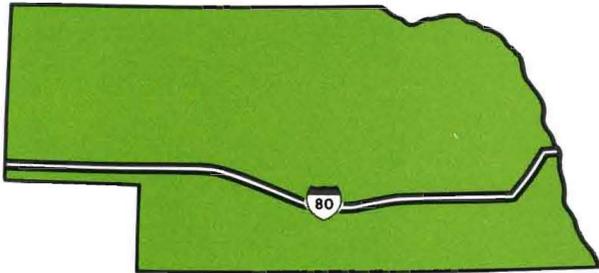
History

Nebraska's internationally-renowned fossil beds, with their regular occurrence of the remains of great animals and much geologic evidence give mute testimony of nature's struggle to determine whether Nebraska would be a sea, a desert, a jungle, or a tundra.

To the best of today's knowledge, the first evidence of man in the state dates back some 10,000 years. The first appearance of Europeans in the state is a matter for some debate. Coronado may have crossed Nebraska's southern boundary in search of Quivera in 1541. Villasur may have been the first in 1720. There is no question but that the Mallet Brothers and possibly other Frenchmen traveled extensively in the eastern part of the state in 1739. Nebraska was secured from France by the Louisiana Purchase in 1803, which prompted the famed Lewis and Clark Expedition up the Missouri River to the West Coast.

Settlement in the form of trading posts and forts generally followed the "highway" water courses of the Missouri and Platte rivers. The first agrarian settler is believed to have been a squatter on Indian lands in southeast Nebraska in 1844. The nation's first free homestead was filed in 1863 near Beatrice. As the frontier pushed westward, a number of military forts were established to cope with rising Indian unrest and resistance. Notable among these were Forts Kearny, McPherson, Sidney, Mitchell, Hartsuff, and Robinson.

Rapid developments characterized the mid-1800's in Nebraska. Thousands traveled the Oregon Trail, and by 1869, the rails of the Union Pacific Railroad spanned the continent, bringing settlers and civilization to the Plains.





Crop and grazing lands make up over 97 percent of total land area. Some 2 percent is forests and woodland

GOALS AND OBJECTIVES

Where are we going? Why? And, how shall we go? These questions must be answered to guide the planning effort and management program for outdoor recreation. This is the function of goals, objectives, and policies.

The Nebraska Game and Parks Commission is the state agency responsible for development of the Comprehensive Outdoor Recreation Plan. The director is the State Liaison Officer for outdoor recreation activities under the Land and Water Conservation Fund Act of 1965. Since the Commission is responsible for virtually all phases of outdoor recreation at the state level, except spectator sports, a wide variety of recreation interests are represented.

Goals, objectives, and broad policy guidelines for the outdoor recreation program in Nebraska have been established within the statutory constraints of the Game and Parks Commission. They are consistent with the national goal established by the Land and Water Conservation Fund Act of 1965 as well as Nebraska's enabling legislation. They include:

- (1) To preserve, develop, and assure accessibility to all citizens of Nebraska and visitors, now and in the future, such quality and quantity of outdoor recreation resources as may be available, necessary, and desirable to permit a relatively free choice by the individual for active participation;
- (2) To strengthen the health and vitality of Nebraska citizens by providing such quality and quantity of outdoor recreation resources necessary and desirable to encourage active individual participation;
- (3) To strengthen the economy of Nebraska by provision of outdoor recreation to attract nonresident visitors to and through Nebraska; and
- (4) To place the responsibility for execution of outdoor recreation programs at the lowest level of government possible—or with private enterprise—commensurate with stated objectives and financial and organizational capabilities.

General Outdoor Recreation

Objectives

1. The objective of the State Park System is to develop a balanced system of nonurban park areas for the inspiration, recreation, and enjoyment for residents and wayside parks as picnic areas or rest stops for the traveling public.
 - a. *State Parks.* To establish, maintain, and improve major state parks in those physiographic regions of the state which have desirable and statewide scenic, scientific, or historic significance and sufficient desirable lands for a complete development potential, and, where possible, a representative portion can be retained in a relatively undisturbed state. State parks will be developed in such a manner as to provide: (1) Facilities for vacation and weekend use by families; (2) Day-use facilities which will encourage family, group or individual participation; (3) A range of participating outdoor recreation activities commensurate with the resource potential of the area; (4) Full interpretation of significant historic, scientific, and natural features of the area; (5) Location and construction of facilities which are compatible with, enhance, or complement the natural and scenic features of the area; and (6) Organized camp facilities of a multiple-use nature to fill existing and foreseeable needs.
 - b. *State Recreation Areas.* To provide non-urban user-oriented outdoor recreation opportunity, primarily for day-use and secondarily for overnight use, by providing state recreation areas in accordance with identified regional needs, located in accordance with sound park management principles and time-distance considerations of the major use populations. State recreation areas will be located and developed in such a manner as to provide: (1) Opportunity for nonurban outdoor recreation within one hour's driving time

of major user populations, particularly urban groups, with emphasis on water based activities; (2) A range of participating outdoor recreation activities commensurate with the resource potential of the area and regional or transient demand; (3) Day-use facilities which will encourage family, group, or individual participation; (4) Facilities which will encourage overnight or weekend use for local or transient demand and needs; and, (5) Location and construction of facilities which are compatible with and enhance and/or complement the natural or scenic features of the area.

c. *State Historic Parks.* To develop a system of state historical parks which will provide a representative interpretation of the development of the state from prehistoric to modern times for the enjoyment of Nebraskans and visitors. The following policies will guide the establishment of state historical parks: (1) Only those sites which are of notable historical significance to Nebraska and of a size adequate to develop the full interpretive potential of the site will be considered in establishment of state historical parks; (2) Restoration of facilities and features and interpretation of the historic significance of the site shall be authentic and based on thorough, competent research; and (3) state historical parks may be equipped with limited day-use facilities when such facilities do not detract from or interfere with the primary purposes and values of the site.

d. *State Wayside Areas.*

(1) To provide areas appropriate in size and located at strategic intervals adjacent to main highways for safe and attractive picnic, overnight, and rest stops for travelers. Establishment and development of these sites shall be governed by the following policies.

(a) Location will be in accord with the general area identified in the 10-

Year State Park Plan prepared in 1961 and with standards identified in the Comprehensive Outdoor Recreation Plan;

(b) Sites will be located in such a manner as to provide safe approach and exit and not create traffic hazards to park or highway users;

(c) Emphasis will be given to development of day-use facilities designed to serve traveling families for short periods of time but administered and developed to permit overnight use of short duration, where appropriate;

(d) Interpretive or informative facilities shall be provided at those sites where appropriate for interpretation of significant historic, natural, or cultural features of the general area; and

(e) Development of the site shall be compatible with, enhance, and complement the natural and scenic features of the area.

(2) To particularly develop the full outdoor recreation potential for Nebraskans and nonresidents adjacent to and in the vicinity of Interstate 80 and to contribute to the economic development of the area by providing: (1) intensively-developed day-use and camping facilities for short term use at selected major interchanges; (2) day-use areas oriented to water-based outdoor recreation activities at selected interchanges, and (3) special use areas which are easily accessible from Interstate 80 and oriented to lakes or stream frontage along the Platte River for extensive outdoor recreation activities. Location and development of these sites will be of such standards as to enhance the natural beauty and scenic features of Interstate 80 and encourage the development of other

related service facilities by the private sector.

2. To enhance the quality of life and physical environment in municipalities of Nebraska by encouraging the development of adequate outdoor recreation opportunity by political subdivisions to meet primarily identified municipal or local needs through allocation of federal grants-in-aid from funds apportioned to the state under the Land and Water Conservation Fund Act of 1965 and the provision of state grants-in-aid for approved outdoor recreation projects in accordance with Sections 37-427 to 37-429 inclusive, Revised Statutes of Nebraska.

Other Policy Guidelines

The following general policy guidelines provide direction for the total outdoor recreation program in Nebraska within the legislative authority of the Nebraska Game and Parks Commission.

1. The private sector has made and will continue to make a substantial contribution to outdoor recreation. Development and operation of outdoor recreation sites and facilities by the private sector will be encouraged for those types of enterprises which can be operated profitably for public service or to serve the needs of highly specialized interest groups.

2. Recognizing that maintenance of a high quality outdoor environment is essential to the health and well being of citizens of Nebraska as well as to enjoyment of satisfactory outdoor recreation experiences, the Nebraska Game and Parks Commission shall support and encourage such programs that:

(1) Maintain and enhance scenic and natural beauty both in the urban and nonurban landscape;

(2) Emphasize development of outdoor recreation facilities which are compatible with and enhance the natural environment and beauty;

(3) Recognize legitimate limitations of

physical development of flood plain lands and encourage zoning to promote uses of these lands consistent with the degree of flood hazard involved; and that outdoor recreation, wildlife, and open space are desirable uses of these lands and may in some instances, represent the highest and best use;

- (4) Protect, maintain, improve, and develop the waters of the state for all beneficial uses, especially fish, wildlife, and outdoor recreation;
 - (5) Provide desirable public or private action for control and abatement of pollution.
3. Resident outdoor recreation needs will receive primary emphasis. However, opportunities for out-of-state users will be given full consideration in development of outdoor recreation resources.
 4. Present state-owned outdoor recreation lands and waters or other outdoor recreation lands in which the state has assisted financially in acquisition shall be preserved, unless it can be clearly demonstrated that a better use can be made of the resource by the people of Nebraska. In that case the loss shall be replaced by resources of equal value and utility to outdoor recreation.
 5. The demand for water based outdoor recreation is increasing rapidly. Water is a basic resource for outdoor recreation and the maintenance of a fishery and many forms of wildlife. The Commission shall support policies which provide for optimum recreational benefits and full and adequate consideration of all resource values in all water resource development projects.

Fish and Wildlife

The objective of fish and wildlife management, through the statutory authority of the

Game and Parks Commission, shall be to perpetuate and enhance the fish and wildlife resources of Nebraska for the recreational, esthetic, and scientific use, both consumptive and nonconsumptive, for Nebraskans and their visitors.

Principles recognized in developing general policy guidelines to accomplish this objective are:

- (1) A responsibility to preserve the opportunity for future generations to share in the benefits and enjoyment of fish and wildlife resources as an important component of a healthy environment;
- (2) That wildlife is a product of the land and a renewable natural resource subject to husbandry and stewardship through wise land management, deserving of serious and positive consideration by all levels of government and the private sector in land use;
- (3) That fish and wildlife, as renewable natural resources and products of the lands and waters, can be used to provide recreational harvests by sportsmen;
- (4) That game species of fish and wildlife, as well as other species, have nonconsumptive values for esthetic, recreational, and scientific use;
- (5) That maintenance of a healthy fish and wildlife environment and recreational uses of these resources have positive economic and social values for Nebraska and the nation.

Broad policies provide direction to the fish and wildlife program, under which functional operational guidelines may be developed. They include:

1. The first consideration shall be the welfare of the fish and wildlife resources in all management decisions.
 - (a) No species shall be managed so as to jeopardize its future population status or to place the species in danger of extirpation.
 - (b) Special consideration shall be given to protection and perpetuation of endangered species.



Wildlife management has but one goal—to perpetuate and enhance fish and wildlife resources for all

2. Every effort shall be made to retain and enhance existing habitat vital to the fish and wildlife resources.
 - (a) Priority shall be given to acquisition of land for critical habitats necessary for perpetuation of individual species or groups of species.
 - (b) Land and waters owned or controlled by the State of Nebraska and dedicated to fish and wildlife purposes shall be managed to provide maximum benefits of fish and wildlife.
 - (c) Programs shall be implemented to inform the public of the values of fish and wildlife resources and to prevent destruction or degradation of environments through activities such as pollution or indiscriminate use of pesticides and herbicides.
 - (d) Part of the research effort shall be aimed at defining the ecology of fish and wildlife populations to aid in the protection of habitat.
3. Consideration shall be given to all values involved in the use of the resources, whether economic, recreational, ecological, esthetic, scientific, educational, or cultural. All persons, including nonconsumptive users, shall have an opportunity to share in the use and enjoyment of fish and wildlife populations.
4. Opportunity for the harvest of game and fish species shall be as equitable as possible within the limits imposed by natural distribution of the individual species and the location of habitat.
 - (a) All species shall be utilized to the fullest extent possible without endangering the resource, and a sustained yield shall be secured at as high a level as possible consistent with the economy of private lands.
 - (b) All regulations shall support a sustained yield and be enforced to insure an equitable opportunity to harvest fish and game.
 - (c) Public information and educational programs shall encourage full use of the resource within existing laws and regulations.
 - (d) Acquisition programs to improve public-use opportunity shall include only those areas capable of making significant contributions to the need for additional public hunting and fishing opportunity.
 - (e) Lands and waters owned or controlled by the state and operated to provide public opportunity for hunting or fishing shall be managed so as to maximize these opportunities.
5. Co-ordination will be maintained with all other public agencies to insure consideration of fish and wildlife resources in land-use planning or other activities affecting fish and wildlife.

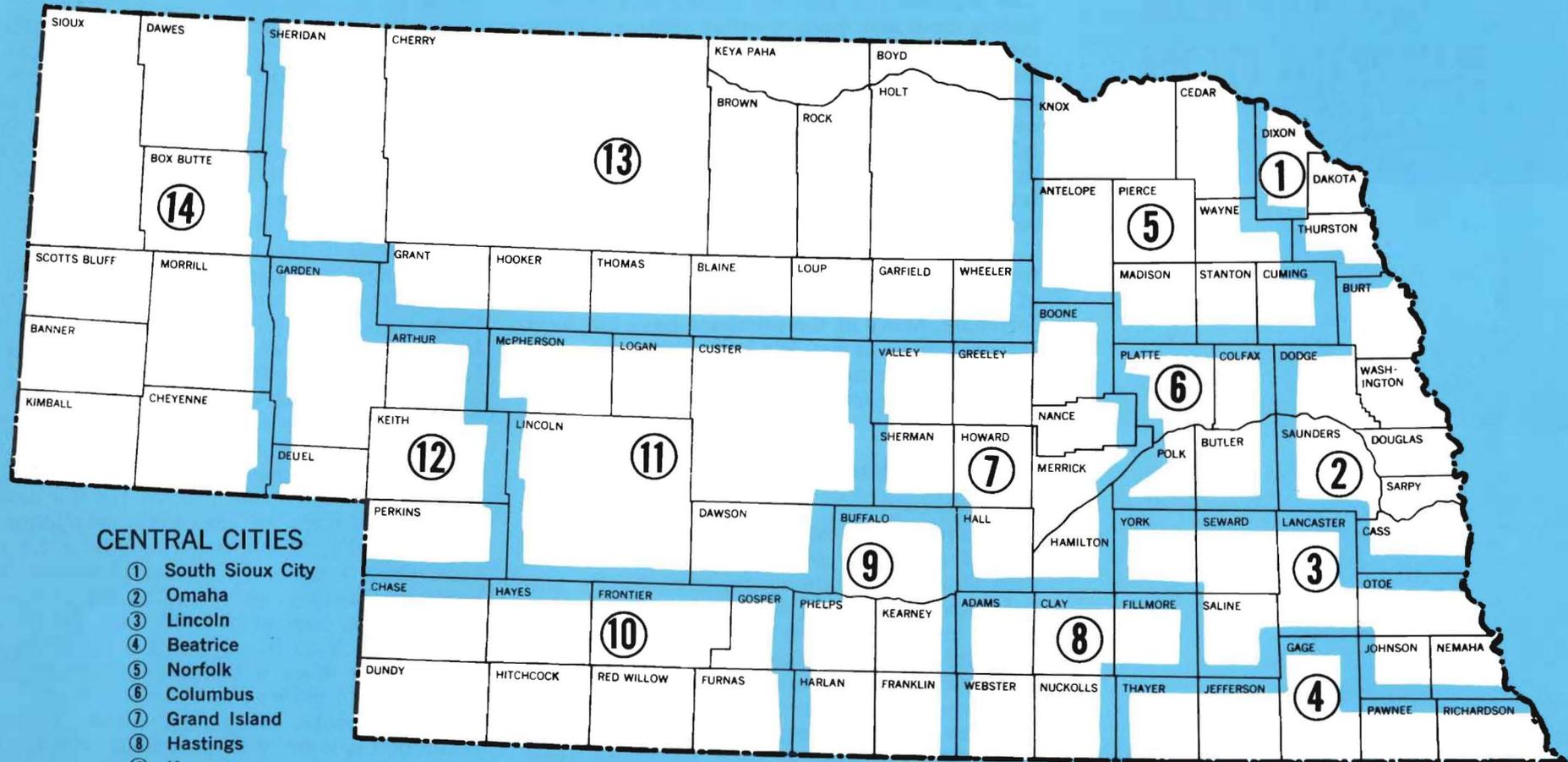
Planning Regions

Planning regions, called socio-economic areas here, are the building blocks for the outdoor recreation plan. Regional planning emphasizes a user-oriented concept for both urban and nonurban facilities.

Fourteen socio-economic areas were delineated. Each includes a central city and a large enough natural economic area to support an acceptable level of facilities, goods, and services. The central city must be large enough and diverse enough to provide the people of an area with all that they require in the course of daily living. The analysis of supply and demand and the determination of needs were based on these areas.

This system of socio-economic areas is viewed as flexible. Additional study will undoubtedly result in realignment of certain areas but it does provide a usable framework for planning.

SOCIO-ECONOMIC AREAS USED AS PLANNING REGIONS



CENTRAL CITIES

- ① South Sioux City
- ② Omaha
- ③ Lincoln
- ④ Beatrice
- ⑤ Norfolk
- ⑥ Columbus
- ⑦ Grand Island
- ⑧ Hastings
- ⑨ Kearney
- ⑩ McCook
- ⑪ North Platte
- ⑫ Ogallala
- ⑬ Valentine
- ⑭ Scottsbluff

DEMAND FOR OUTDOOR RECREATION

Demand for outdoor recreation is increasing at a rapid pace. Nationally, our population is expected to double that of 1960 by the turn of the century, but the demand for outdoor recreation is expected to triple.

What is causing the surge in national demand? Everything seems to be on the increase. The population is growing rapidly and concentrating more and more in urban centers. Family income is increasing and most people have more leisure time in which to spend their additional disposable income. We are a nation on wheels and more people are taking advantage of outlying recreation opportunities as a result of their increased mobility. All of these, and many other factors, contribute to growing demands on our recreation resources.

These changes are occurring in Nebraska, too, although not so spectacularly as in many of the more populous states. Perhaps we are fortunate. Many of the problems have not been thrust upon us as yet. We have some time, with thoughtful planning and action, to avoid the crisis faced by some of our sister states.

The Population

Nebraska has experienced a relatively slow rate of growth in comparison to the national rate. Only three planning regions (Omaha, Lincoln, and Scottsbluff) have shown a total increase in population for the period 1920 to 1960. Although the population in most of the areas has decreased or remained stable, individual cities and towns often increased. Thirty-five of 43 cities over 2,500 population had population increases from 1960 to 1966. Generally, rural populations have decreased while urban numbers increased.

A greater growth rate can be expected from 1966 to 2000. Estimates indicate Nebraska's population will grow 26 percent from 1966 to 1985. If past trends continue, about 70 percent of the 1980 population will be urban. The Omaha, Lincoln, and Scottsbluff SEAs are expected to contribute most of the net increase to 1985.

Distribution of the population is extremely irregular. In 1966, the 14 counties included in the Lincoln and Omaha SEAs had about 52 percent of the state population, while occupying less than 10 percent of the total land area. In contrast, the 14-county Valentine SEA has less than 4 percent of the population and about a fourth of the land area.

Both young and old comprise a greater portion of the state's population. These groups have considerable leisure time and their needs deserve attention. The median age rose from 20.9 in 1890 to 31.0 in 1950, dropping slightly to 30.2 in 1960. The age group from 15 to 34 has shown a constantly decreasing trend, while those over 35 have been increasing. The age group 65 and older has increased from 2.1 percent in 1890 to 11.6 percent in 1960.

Changes in occupational composition favor an increase in demand for outdoor recreation. Farm workers, a low demand group with the least leisure time, are being replaced in the work force by nonagricultural salary earners, a high demand group with the most leisure time.

Nebraskans are slightly above the national average in education. Sixty-five percent of the state's population has a 9th grade education or better, compared to 63 percent for the nation. Only 3.6 percent of the adult population is illiterate, while the national average is 8.3 percent. Only 5 states have lower illiteracy percentages. The average Nebraskan has 11.6 years of schooling, compared to 10.8 for the nation. Educational level has a positive effect on demand, since those with higher education tend to participate more in outdoor recreation.

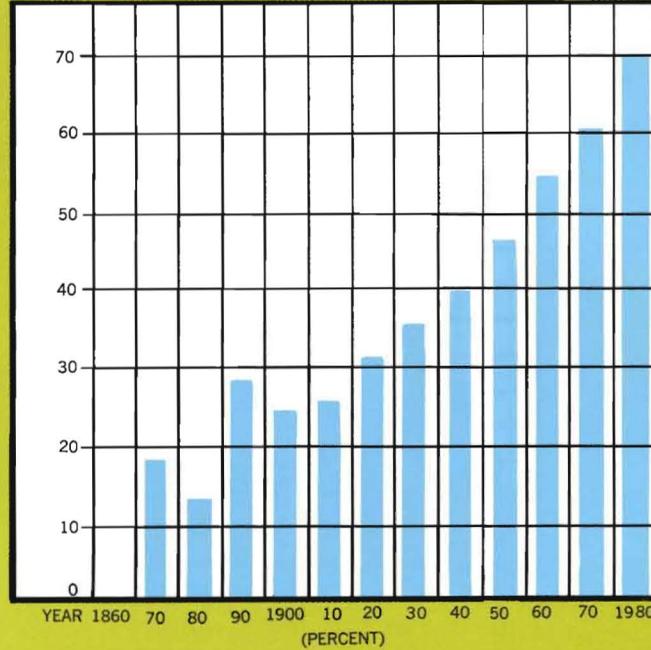
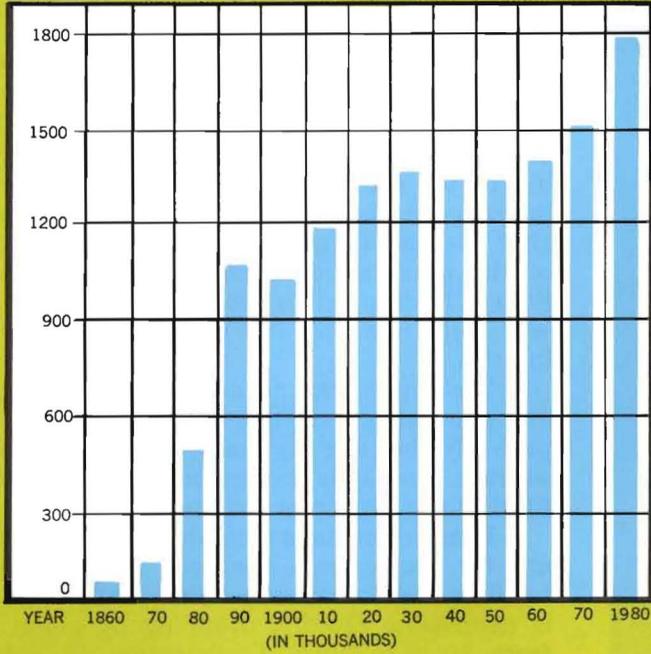
In Nebraska, the percentage of the population that is married is increasing, with a trend toward more, but smaller families. The result is a growing demand for family recreational facilities.

ECONOMIC GROWTH

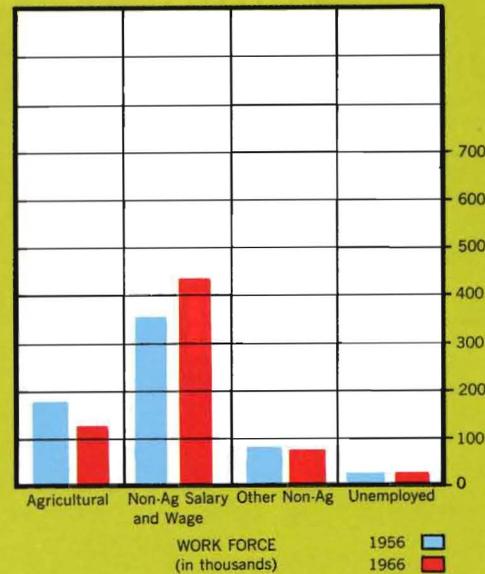
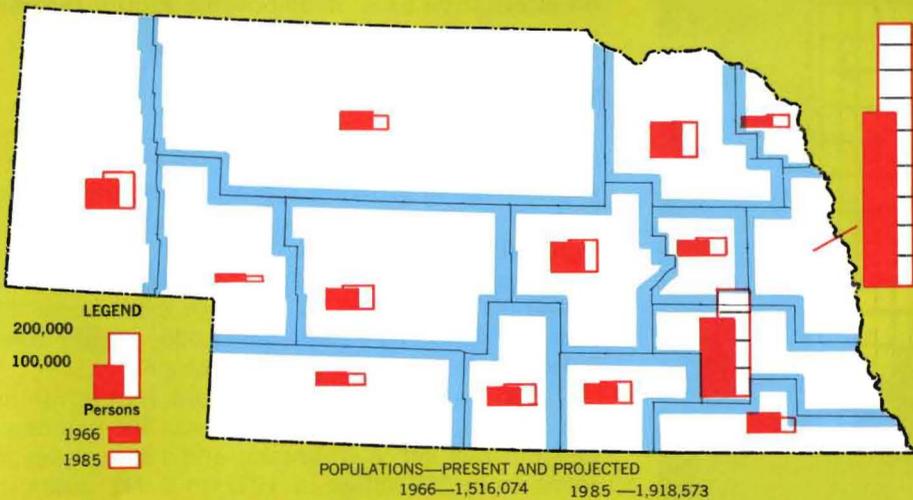
Nebraska's economy is primarily "agri-business" and will remain so for the foreseeable future. In terms of jobs, money, and people,

NEBRASKA'S POPULATION

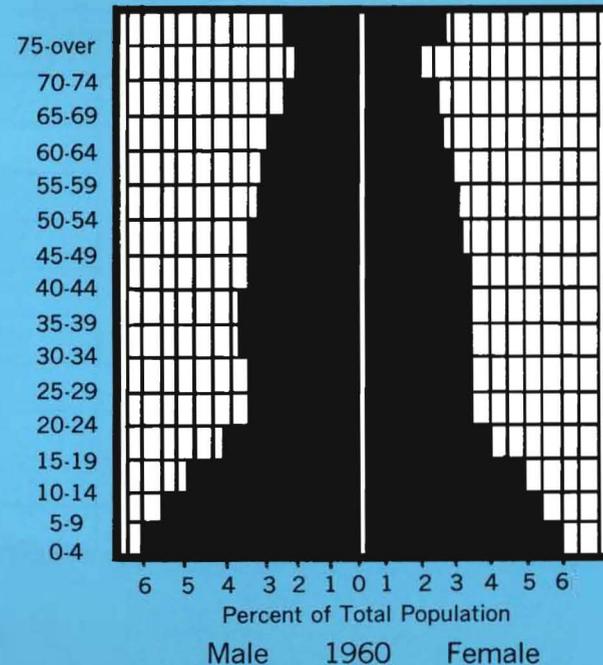
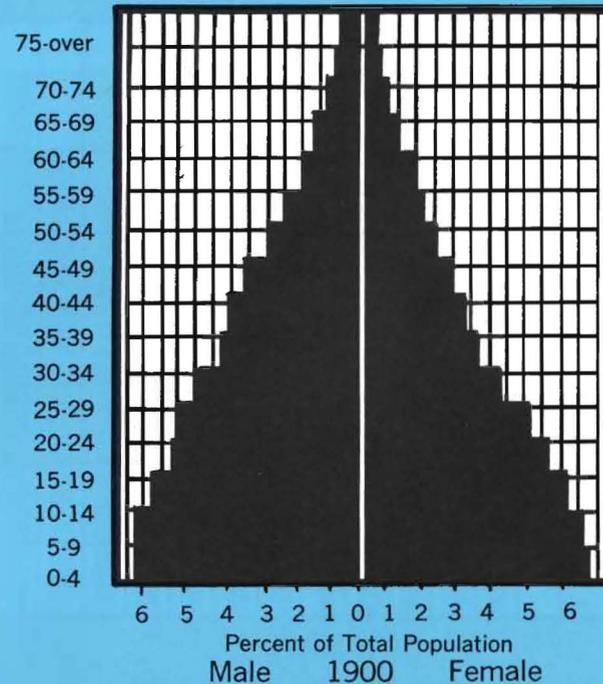
Trends projected for 1970-1980



Trends and projected trends of percent of Nebraska's population which is urban. Projections based on increase shown in 1940-1960 period, 1950 and 1960 percentages are based upon Bureau of Census' new definition of urban areas.



POPULATION CHARACTERISTICS



economic growth has been relatively slow compared to national averages. The total population of the state has been increasing, but slower than the national average.

Nebraska's gross product climbed from \$2.66 billion in 1957 to \$3.48 billion in 1967. The estimated gross product in 1976 will be \$6.46 billion. Gross product trends are comparable to the state's population trends, with the increase rate less than the national average. In 1947, Nebraska's gross product was 0.9 percent of the gross national product for the United States. It dropped to 0.8 percent in 1957 and will constitute only an estimated 0.6 percent in 1976.

Per capita income and disposable income are increasing, but the rate of increase will probably be slightly less than the national average. Per capita income increased 69 percent, \$1,818 to \$3,073, from 1957 to 1967.

Family income is a highly meaningful measure for recreational demand. The number of families with incomes less than \$3,000 per year is decreasing rapidly, dropping by about half from 1950 to 1960. Participation in outdoor recreation increases with income, and the increase is sharpest at about the \$3,000 per year mark. The effect of more family income is dampened by inflationary trends and their effect on alternative uses of disposable family income on nonessential or luxury items.

Mobility

Mobility of both resident and nonresident populations is growing rapidly. The automobile is by far the most important mode of travel, especially for purposes of outdoor recreation. Passenger car registration climbed from 503,281 to 641,000 from 1957 to 1967, an increase of 27 percent. Passenger cars per 1,000 people rose from 350 to 447 during this same period.

Air travel is becoming more important in the state's transportation picture. Six commercial airlines serve Nebraska and route mileage went from 777 miles in 1957 to 2,931 miles in 1967, an increase of 277 percent. Commercial

passengers increased from 392,000 in 1962 to over 662,000 in 1966.

Full impact of this growing mobility has not been felt—but it will. Populous eastern Nebraska will be drawn closer to the spacious lands of the north and west. Interstate 80 will help accomplish this, since east-west travel time will be reduced by as much as 45 minutes for each 100 miles. The recreation potential of central and western Nebraska will be revealed to residents and tourists alike. Other areas of the state, relatively unknown but possessing considerable potential for recreation and history, will also be discovered by the public.

Mobility will have its effect. Increased demand will result.

Projected Demand by Activities

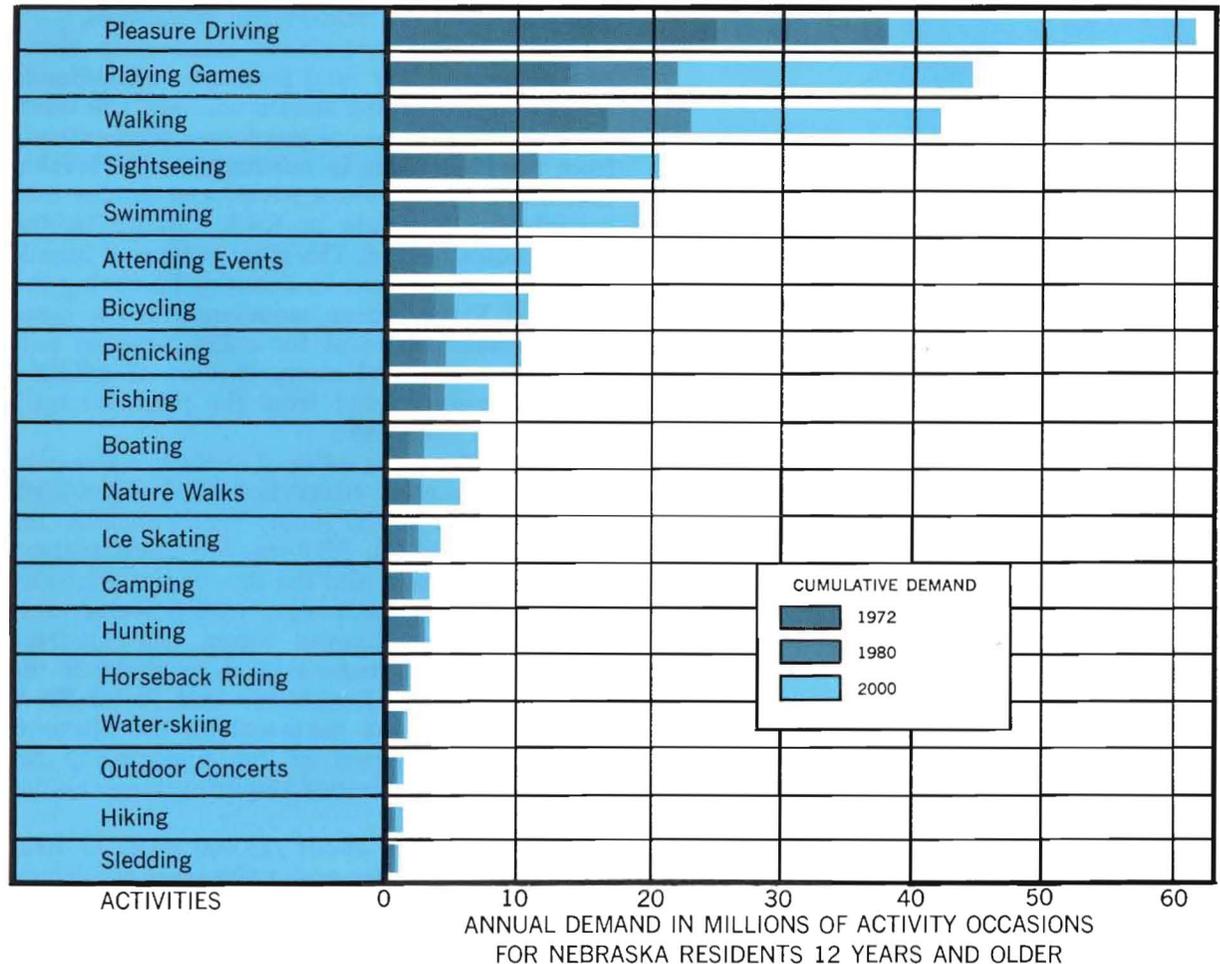
Projected activity occasions provide the foundation for determination of needs in relation to supply of outdoor recreation resources. Resident demand for each of 19 activities has been estimated for 1967, 1972, 1980, and 2000. Since Nebraska's economic and population characteristics closely parallel those of the north-central region, published participation rates, adjusted for latent demand, have been used.

Activity occasions for each of the 14 socioeconomic areas have been projected on the basis of participation rates of population groups delineated by place of residence. Demand is expressed as the estimated occasions of participation for each activity.

Total annual demand is expected to increase from 100 million activity occasions in 1967 to over 261 million by the turn of the century. An increase of 21 percent in all activities is expected by 1972, 50 percent by 1980, and nearly 160 percent before the year 2000.

Resident participation in each activity will grow at a greater rate than population, with the exception of horseback riding and hunting. Water-oriented activities, outdoor sports, camping, and hiking show the greatest increase.

Nonresident demand has not been included in the projections. Improved transportation systems, increased participation in hunting, traffic flow data, and use of state parks and recreation areas all indicate a rapidly increasing demand by nonresidents. Interstate 80 alone has the potential for serving one-half the American people living east of Omaha. The potential demand defies quantitative projection, but it will be substantial. Expression of demand by participation will depend on the facilities and opportunities available. The greatest nonresident demand will be for historical parks and interpretations, water-based activities, hunting, and wayside parks with overnight facilities.



SUPPLY OF OUTDOOR RECREATION RESOURCES

Natural Resources

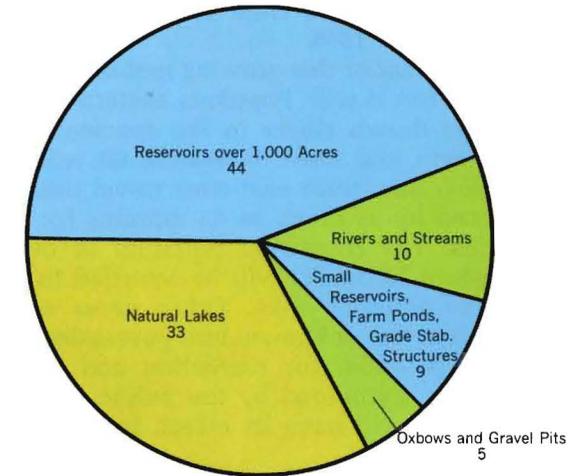
The quantity and quality of natural resources determines the potential for many forms of outdoor recreation. Land, water, vegetation, and wildlife, usually in combination, provide the base for these activities.

Farm areas comprise over 97 percent of the state and are about equally divided between croplands and pasture or grazing lands. Few areas remain untouched or unaltered by agricultural operations. Extensive areas of unbroken short-grass plains remain in some areas, particularly in Sioux County, while the vast Sand Hills of north-central Nebraska provide a landscape of unbroken mid-prairie grasslands.

Forests and woodlands claim only about two percent of the total land area. Woodlands occur primarily along stream courses. The western coniferous forest of ponderosa pine extends from the Pine Ridge in northwestern Nebraska, east along the Niobrara River, and grades into broadleaf woodlands in Rock County in the north-central region. The most extensive broadleaf woodlands occur in counties bordering the Missouri River. These woodlands are a basic and necessary element for many types of outdoor recreation and many species of wildlife, while providing relief from the predominantly agricultural landscape.

The 615 square miles of surface water contain approximately 40,000 bodies of water, with 3,350 over 10 acres. Major rivers include the Missouri, Niobrara, Elkhorn, the Loup system, Platte, Republican, and Big Blue rivers. Size and depth limit pleasure boating with powered craft on all but the Missouri River. An extensive multi-purpose reservoir system, primarily in the southwest on the Republican and Platte River systems and in the northeast on the Missouri River, provides most of the opportunity for water-oriented activities requiring large bodies of water.

The state has about 225,600 acres of fishing water. Reservoirs over 1,000 acres contribute over 75 percent of the fishing capacity. Over 55 percent of the total capacity occurs in the Val-



Percent of Fishing Capacity Provided by Various Types of Fishing Waters (Total Estimated Surface Area—225,600 Acres)

entine and Ogallala SEAs and is not readily available to fishermen of the more densely populated eastern Nebraska. Rivers and streams, farm ponds, grade stabilization structures, oxbows, and gravel pits provide most of the sport fishing opportunity in eastern Nebraska. Cold-water fishing is largely confined to western Nebraska, although a few trout streams occur in the northern areas. A few gravel pits support trout in eastern Nebraska.

Upland game birds which contribute to sport hunting include the ring-necked pheasant, bobwhite quail, prairie chicken, and sharp-tailed grouse. Of these, the pheasant has the widest distribution and is the most popular. Almost 1¹/₄ million cocks were harvested in 1966 by about 141,100 hunters. Prairie chickens and sharptails are found primarily in the Sand Hills of north-central Nebraska and in parts of the southwest. Bobwhite quail are most abundant in southeastern counties and have general distribution along the river systems throughout much of the eastern and southern portions of the state.

Small game mammals include cottontail rabbits, squirrels, and raccoons. Each species occurs throughout much of the state. However, the squirrel is limited to broadleaf woodlands.



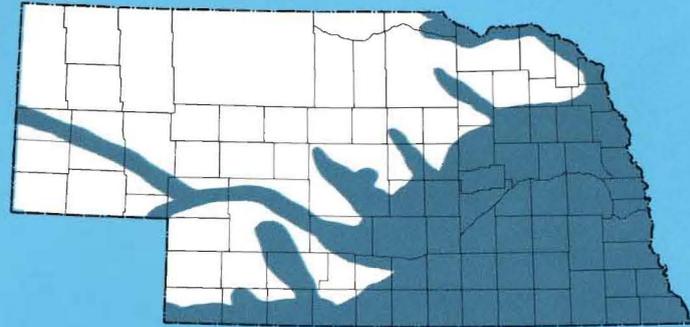
Fishing opportunities abound in some 225,600 acres of water, but over half is not readily available to populous east region anglers



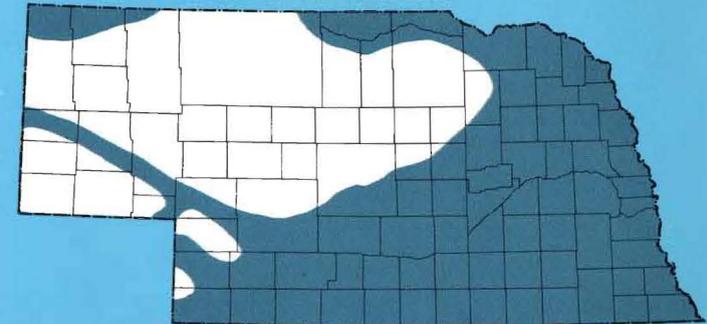
PHEASANT RANGE



PRAIRIE GROUSE RANGE



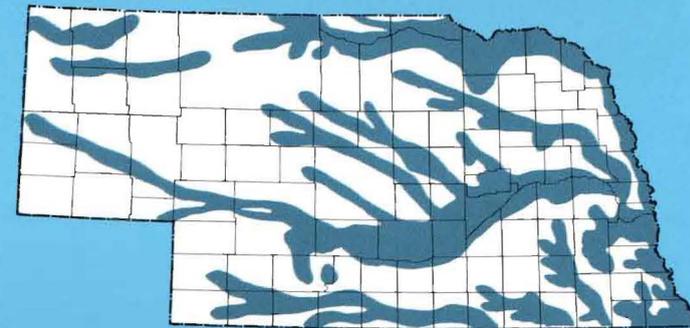
BOBWHITE QUAIL RANGE



RABBIT AND SQUIRREL RANGE



 RANGE AREA



WHITE TAIL DEER RANGE



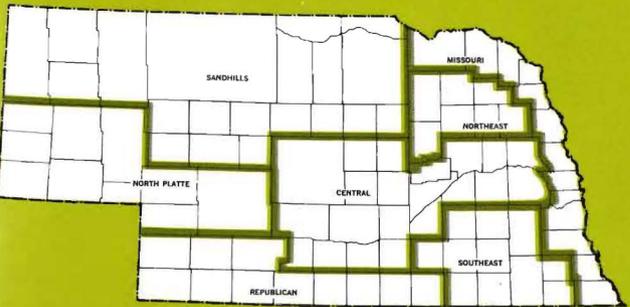
MULE DEER RANGE



ANTELOPE RANGE



WILD TURKEY RANGE



WATERFOWL REGIONS

Big-game species include mule and white-tailed deer, antelope, and wild turkey. Deer occur throughout the state and reach their highest densities along the stream courses and associated river breaks. The importance of and participation in deer hunting has been increasing steadily. In 1966, 17,765 deer were harvested by 24,870 rifle hunters and 2,946 archers. Antelope occur primarily in the Panhandle. Recently they were reintroduced in the Sand Hills, and in 1965 and 1966, the annual harvest exceeded 1,000 animals. Future participation and harvests should increase. Although wild turkeys were introduced as recently as 1959, they provided high quality hunting to almost 3,500 hunters in 1966.

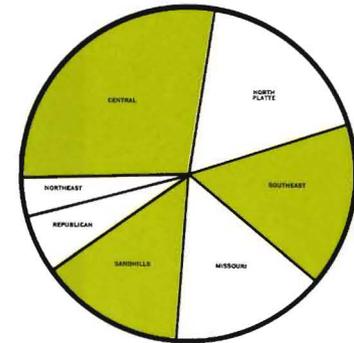
Waterfowl hunting has been a traditional outdoor recreation activity for large numbers of Nebraskans. However, recent continental declines in waterfowl populations have altered participation drastically. Unattractive seasons reduced the number of active waterfowl hunters from 64,100 in 1957 to an all-time low of 14,600 in 1962. Conditions have improved slightly since 1962. In 1966, there were 28,453 active waterfowl hunters. Streams and rivers, rain-water basins of south-central Nebraska, natural lakes of the Sand Hills, and farm ponds provide the available water area for waterfowl hunting. Access to primary harvest areas for public hunting is poor. Hunting-privilege leases and restriction of hunting rights preclude public hunting opportunity in much of the rain-basin area. An active acquisition program by the Bureau of Sport Fisheries and Wildlife and the Nebraska Game and Parks Commission has made over 6,000 acres of rain-basin marsh available to the waterfowl hunter.

Virtually all species of game must be produced and harvested on private lands. Access for hunting is a problem in public utilization of the game resources in many parts of the State.

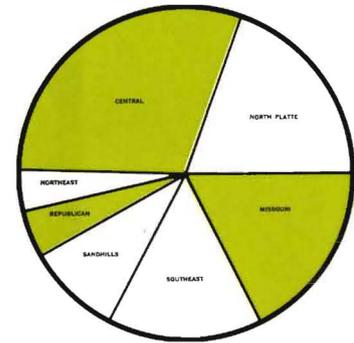
Public Lands

Inventories of public lands show that 715,588 acres or approximately 1.45 percent of the total state area is available for nonurban

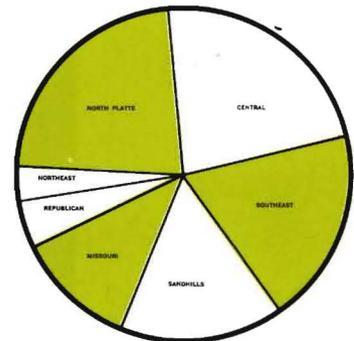
SUMMARY OF DUCK HARVEST BY REGIONS—1960 SEASON



PERCENT OF HUNTERS



PERCENT OF HUNTING DAYS FOR DUCKS



PERCENT OF TOTAL DUCKS BAGGED



While pheasant ranks as No. 1 game bird, many other species, such as grouse, provide action

recreation. About 75 percent of that is owned and managed by federal agencies and 25 percent is managed by the Nebraska Game and Parks Commission.

The Game Commission owns or leases 152 areas totaling 182,231 acres. Included are 5 major parks, 20 wayside parks, 6 historical parks, 53 recreation areas, and 66 special use areas.

Location of state parks is resource-oriented, and sites are highly limited. The size of three state parks is less than desirable to provide the quality outdoor recreation intended for these areas.

State recreation areas may be either resource or user-oriented and have general distribution throughout the state. Thirty-two percent are less than 100 acres in size. Most of the recreation areas have been oriented to water including lakes, rivers, sand-pit lakes, and reservoirs. About 93 percent of all areas include waters or provide access to bodies of water having value for recreation. Approximately 90 percent of the total acreage is leased by the Commission from federal agencies and quasi-public or other local organizations.

Nebraska is of particular historical importance during the periods of western expansion. Financial and legal tools for development of a historical park system were provided by the 1959 Legislature. Since that time the system has been expanded from one area to seven different sites, totaling 1,190 acres.

Acquisition and development of wayside areas has been accelerated during recent years. In September, 1967, 20 sites, ranging from 3 to 168 acres in size, were included in this category.

Special use areas are managed primarily for wildlife, hunting, or fishing. In September, 1967, 66 areas totaling 45,444 acres were included in this class. Thirty-five percent of the areas are less than 100 acres in size with 21.2 percent less than 40 acres. Forty-two of the areas contain some water and 13 have bodies of water in excess of 100 acres. Seven of those which do not contain water provide access to relatively large bodies of water capable of providing tradi-

tional types of water-oriented activities. Sixty-two percent of the lands included in state special use areas are under management agreements or leased from federal or quasi-public agencies.

Most public outdoor recreation areas of Nebraska are managed to provide basic activities which require little specialized equipment. Most of these activities are oriented to water. Warm-water fishing and picnicking are the leading activities. Fishing was ranked as one of the top three activities on 60.5 percent of the areas and picnicking on 48.7 percent. Participation in each activity was listed for 72 percent of the areas. Small game hunting, driving and sight-seeing, camping, waterfowl hunting, nature study, boating, and swimming were other leading activities listed in the order of relative participation as estimated by management personnel.

All communities over 200 people were inventoried to determine the number and acres of municipal recreation areas. Municipalities own or operate 868 outdoor recreation areas totaling about 13,000 acres. The most prevalent outdoor recreation facilities provided on village parks were playgrounds, game and sport areas, and picnic areas. The most significant facilities for those between 1,000 and 50,000 were playgrounds, picnic areas, playfields, and swimming pools. A wide range of facilities and activities were provided on developed areas in Omaha and Lincoln.

Community Class (Population)	Number Inventoried (Municipalities)	Number of Areas	Total Acres
Less than 1,000	304	393	1,580
1,000 - 5,000	89	217	3,883
5,000 - 50,000	23	150	2,393
Lincoln	—	37	2,420
Omaha	—	71	2,724
Totals		868	13,000

NEEDS FOR OUTDOOR RECREATION

Standards used to estimate land needs for user-oriented nonurban and urban outdoor recreation areas are expressed as acres of recreation lands by type per 1,000 population. They are particularly useful in delineating areas of primary needs and illustrating where emphasis should be placed in acquisition and development of outdoor recreation areas and facilities.

These standards, however, serve as a guide—not as a goal. Those developed for one region may not be entirely applicable to another. The character of specific sites may alter the acreage required. The ultimate amount of land that should be devoted to outdoor recreation, whether public or private, will largely depend upon land use capabilities and the highest and best use.

The concept of standards is not entirely applicable to those areas which are primarily resource-oriented, such as major state parks, historic parks, scientific sites, or critical wild-life areas. These sites will depend upon quality and their value to the people as a public resource. Thus, qualitative standards were established to describe the relative value of resource-oriented areas to the public.

⁽¹⁾Definitions of land classes:

Class I. High-Density Recreation Areas. Generally located near urban centers and user-oriented in design; diverse and varied recreation opportunities appropriate to terrain and location; mass accommodations provided.

Class II. General Outdoor Recreation Areas. The natural resource is utilized for the opportunity it provides, regardless of location; areas are readily accessible, equipped with a wide variety of man-made facilities which may vary from the simple to the elaborate; activities are generally of a localized nature and mass use is not generally a feature as in Class I.

Class III. Natural Environment Areas. Generally large areas which provide traditional outdoor recreation activities. The user is encouraged to utilize the area in its natural

Standards for estimating land needs for outdoor recreation

Land Class (1)	Planning Area	Standards	
I and II	Metropolitan (over 100,000)	10 acres/1,000	
	Cities of the first class (5,000 to 100,000)	15 acres/1,000	
	Cities of the second class (1,000 to 5,000)	20 acres/1,000	
	Villages (less than 1,000)	25 acres/1,000	
	Non-urban areas	1967	30 acres/1,000
		1972	35 acres/1,000
1980		40 acres/1,000	
2000		50 acres/1,000	
I	State Wayside Areas	One 3-5 acre park per 50-60 miles of major highway ⁽²⁾	
III	Non-urban areas	1967	30 acres/1,000
		1972	35 acres/1,000
		1980	40 acres/1,000
		2000	50 acres/1,000

state with a minimum of man-made developments for access and sanitation. Scattered use is more likely than concentrated use. The area may be used in conjunction with other resource uses.

(2) On the Interstate 80 system of the Platte valley, wayside areas should be about 25 to 30 miles apart and may range in size from 10 acres to about 200 acres.

Qualitative Standards for Class IV, V, and VI Lands
Class IV. Outstanding Natural Areas

This class will include only those areas which have remarkable natural wonder, high scenic splendor, or features of scientific importance. The primary value is the quality and uniqueness of the natural features. These areas should be managed to maintain an appropriate setting for sightseeing, enjoyment, and study, commensurate with preservation of the quality of the natural features.

Class V. Primitive Areas

This class will include extensive natural areas which have not been disturbed and are without mechanized transportation. The area must be large enough to provide a reasonable wilderness experience and have high inspirational, esthetic, scientific, and cultural assets.

Class VI. Historic and Cultural Sites

These sites must be associated with history, tradition, or cultural heritage of national, state, or local interest significant enough to merit preservation or restoration. Management should be oriented to restoration, preservation, and interpretation for sightseeing, enjoyment, and study of the historic and cultural features. Limited day-use facilities may be provided when such facilities do not detract from nor interfere with the primary purposes and values of the site.

Needs for nonurban recreation lands
(Class I, II and III)

Present deficiencies for public nonurban outdoor recreation lands in the Class I, II, and III are estimated at 34,176 acres. Deficiencies in outdoor recreation lands are expected to increase to 50,740 acres by 1972, to 78,413 acres

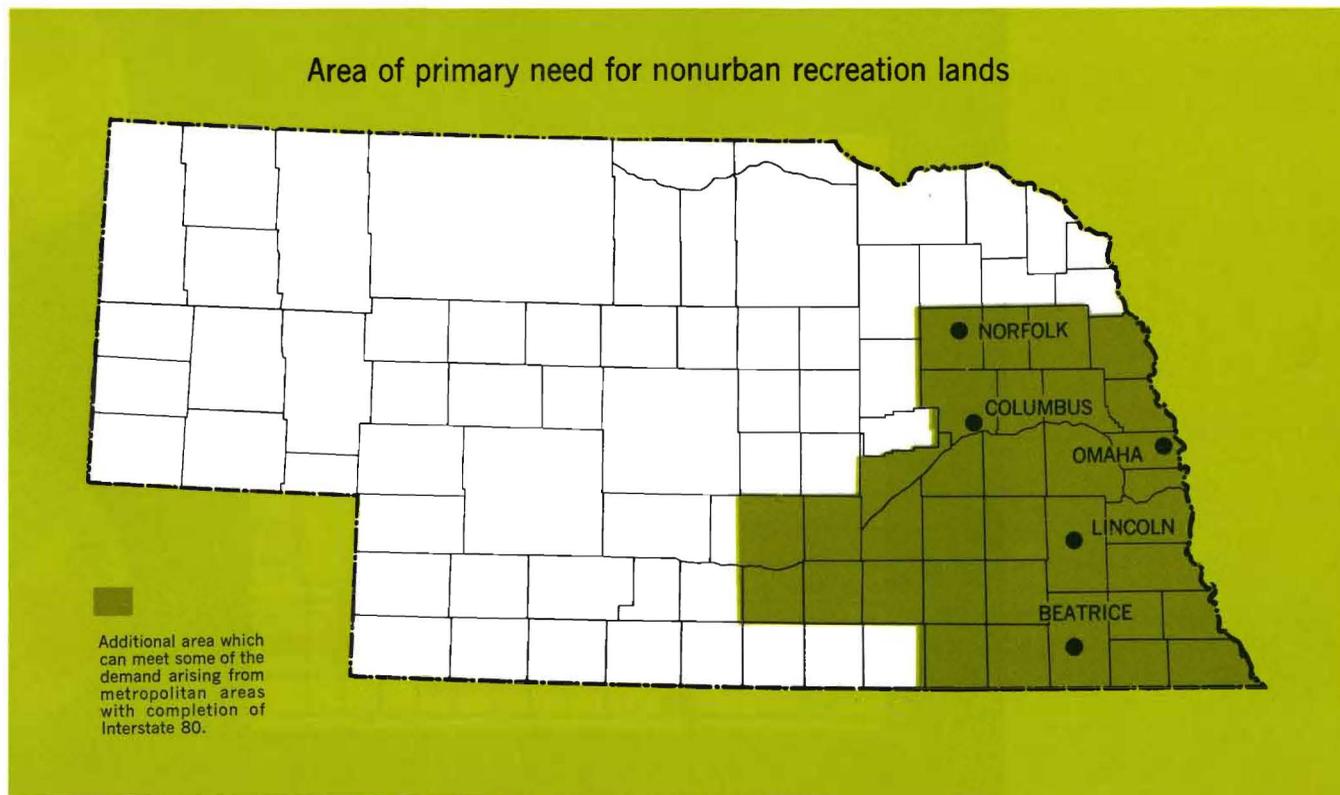
by 1980, and to 182,000 acres by 2000. Well over half of the present and projected deficiencies are associated with the Lincoln and Omaha socio-economic areas.

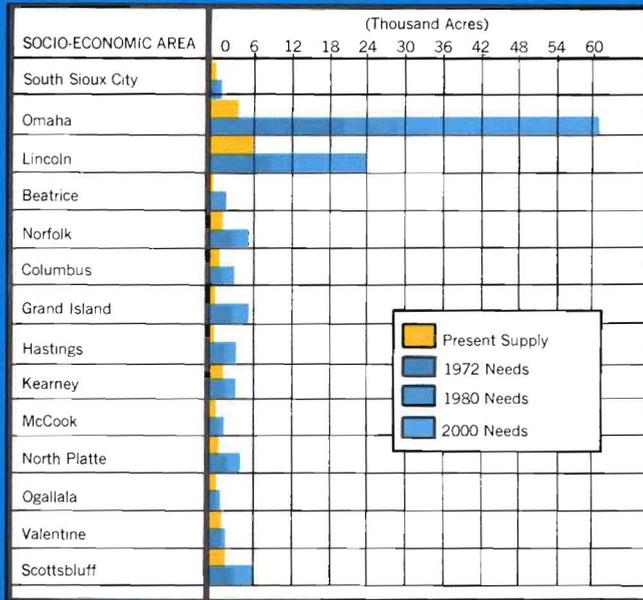
Land needs for resource-based major state parks are estimated at 33,000 acres. This includes lands necessary to complete a 40,000-acre Fort Robinson State Park complex in northwestern Nebraska, plus land required for expansion and completion of Ponca and Indian Cave state parks.

Area of primary need for nonurban recreation lands.

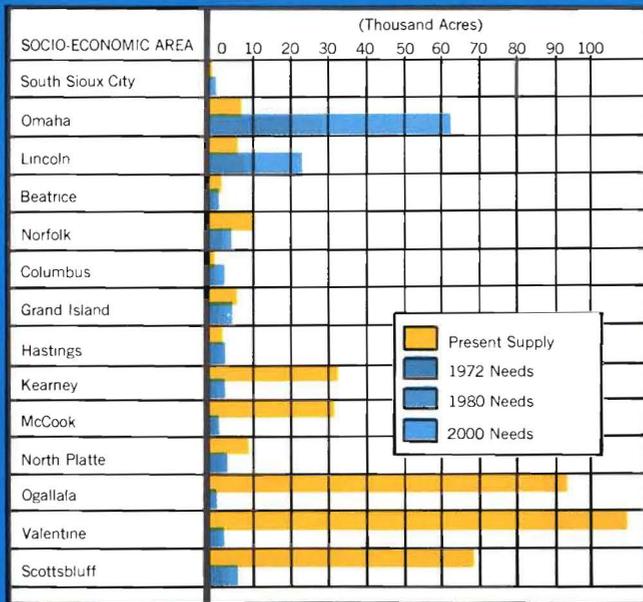
Municipal Recreation Lands

Minimum land needs for municipalities were based on standards in relation to lands inventoried for communities in each population class,





Class I and II nonurban land needs based on socio-economic area populations and nonurban land standards.



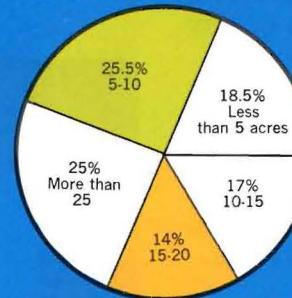
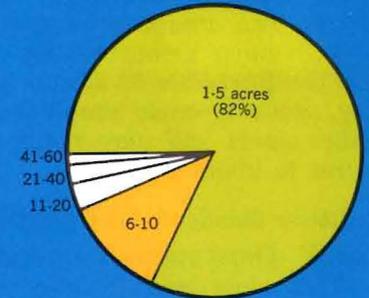
Class III nonurban recreation land needs based on socio-economic area populations and nonurban land standards.

Acres of recreation land per 1000 people by size of community

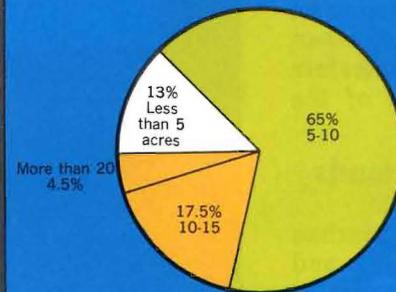
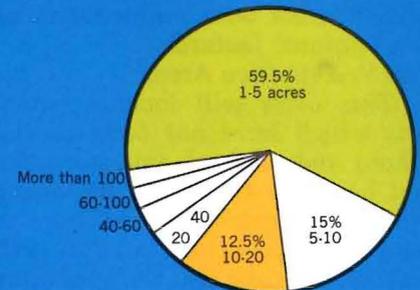


200-1,000 PEOPLE

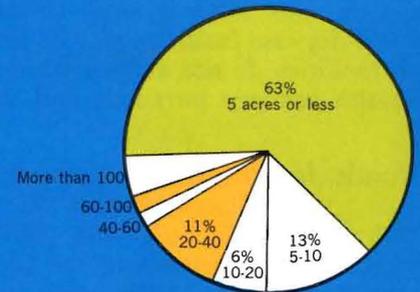
Size of municipal recreation areas by size of community



1,000-5,000 PEOPLE



OVER 5,000 PEOPLE



although precise needs could not be determined for each community. This procedure does provide a reasonable measure of the magnitude of recreation land needs for municipalities.

The following is a summary of existing municipal needs for additional recreation land for municipalities over 200 in population. Considering past population trends, needs for communities of less than 5,000 people will remain relatively stable through 1972. Needs of cities over 5,000 and metropolitan cities will increase by 1972 and show substantial increases by 1980. Purchase of land now to satisfy future needs is often necessary to preclude paying excessively high prices or to prevent pre-emption of desirable and needed lands for other purposes.

Population Class	No. of Units	Percent with sufficient lands for minimum standards	Total estimated deficiency (Acres)
200 - 1,000	258	13.6	1,608
1,000 - 5,000	86	25.6	1,355
5,000 - 100,000	23	16.7	1,789
Metropolitan	2	50.0	671
Total	369		5,423

Summary of 1967 estimated municipal needs for recreation lands for municipalities over 200 in population.

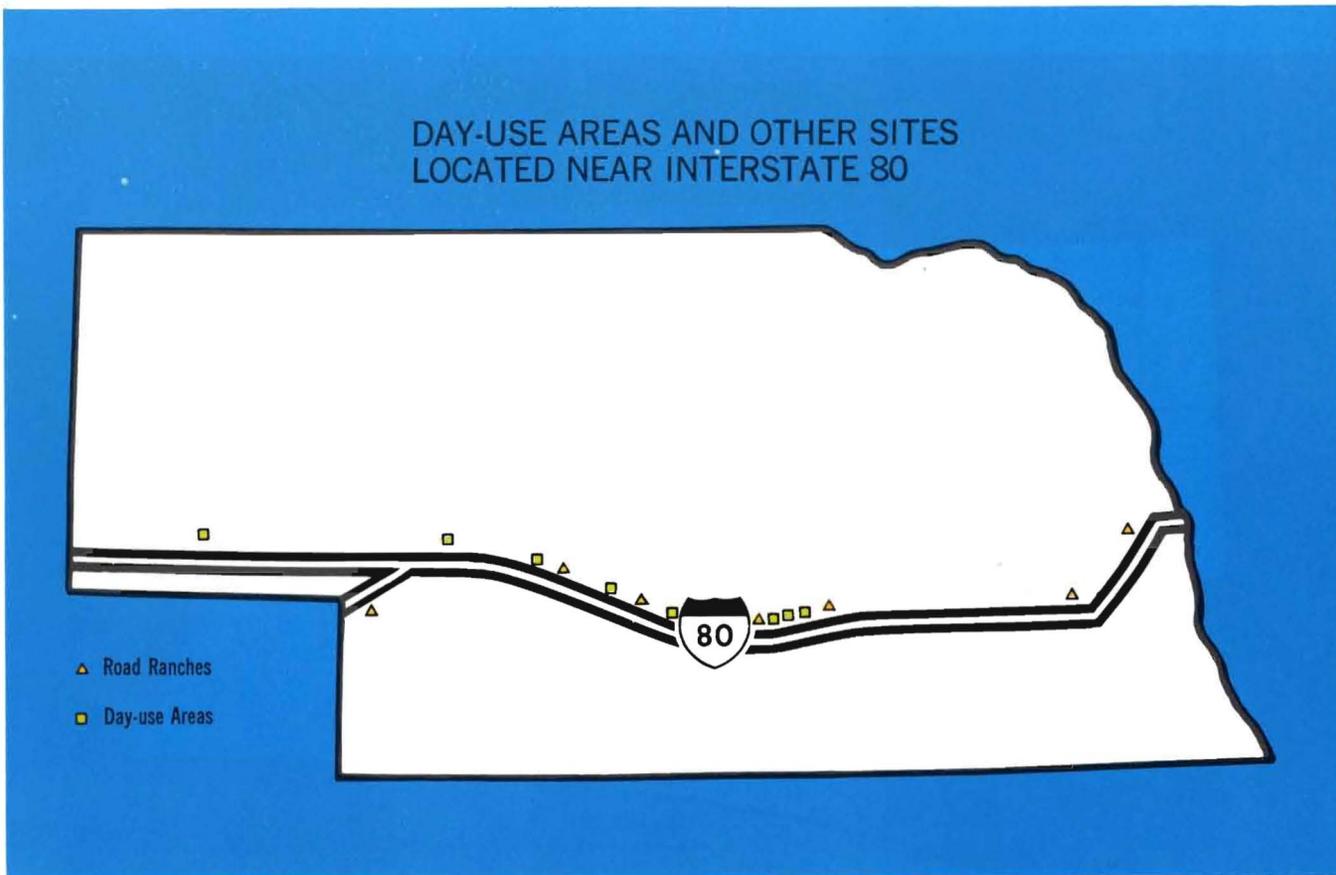
State Wayside Areas

These areas are designed and oriented to serve transient users, both resident and non-resident. Thus, needs for this special facility have been considered separately from other areas providing primarily day-use and overnight facilities for resident populations. Needs are considered under two broad categories: (1) Interstate 80, which is the show window of Nebraska and the major transcontinental route from the populous east to the vacationland west, and (2) wayside areas located on other major highways.

Interstate 80: Areas for acquisition and development have been considered in three broad categories: (1) major recreation areas or "road ranches", (2) day-use recreation areas, and (3) special-use areas.

Road Ranches are planned at the Grand Island, Gibbon, and Elm Creek interchanges. Tentative locations of four others include the Maxwell and Big Springs interchanges and two undetermined sites between Omaha and Grand Island, probably in Douglas and Lancaster counties. Each will be oriented to a lake or reservoir. Typical development will include facilities for picnicking, camping, swimming, fishing, interpretation and information, and the necessary supporting facilities.

Day-use areas will also be developed at interchanges and oriented to lakes created during highway construction. Typical development will include 15 to 20 picnic units, shelters, fish-



ing, and supporting facilities. Eight of these areas are planned at the following tentative locations: (1) Alda Interchange, Hall County; (2) Wood River Interchange, Hall County; (3) Shelton Interchange, Buffalo County; (4) Odessa Interchange, Buffalo County; (5) Gothenburg Interchange, Dawson County; (6) Hershey Interchange, Lincoln County; (7) one undetermined location between Hershey and Big Springs, and (8) one undetermined location in Cheyenne or Kimball County.

Special use areas may be located either adjacent to I-80, at interchanges, or within a few miles of the highway. Up to 3,000 acres may be acquired for this category. These will be oriented to lakes or frontage and accretion along the Platte River. Compared to the other types of areas, developments will be minimal

and directed to activities such as fishing, hunting, nature study, primitive camping, hiking and walking.

Other Wayside Areas: Needs for 48 of these areas have been identified previously in a 10-year capital improvement program for state parks. Twenty have been acquired. Estimated minimum land needs for the remaining are 420 acres. These sites will be developed for day-use and overnight areas which feature interpretive facilities (when appropriate), picnicking, and camp sites.

Historic and Cultural Sites

Development and interpretation of these sites is of inestimable value to the tourist program in Nebraska. As significant sites are identified, they should be acquired, preserved, restored, interpreted, and developed to insure future generations a physical link to their heritage. Emphasis should be placed on acquisition and development of those which present a representative cross-section of historic and prehistoric times.

The following areas are of sufficient importance to be identified and provide a cross-section of the state's development.

A. Prehistoric.

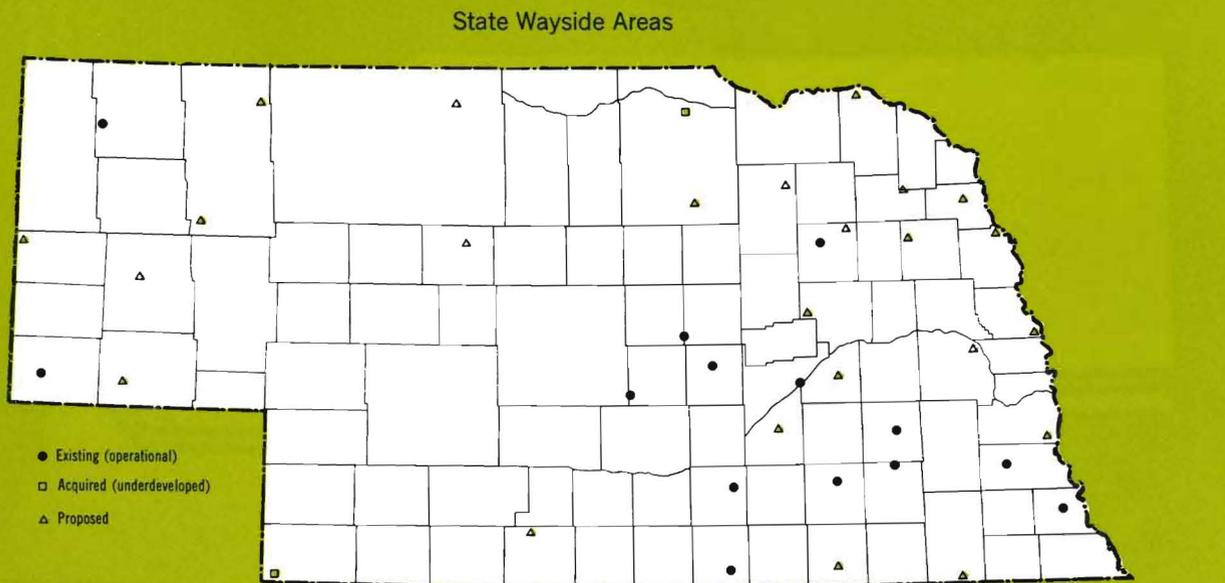
1. Nehawka Flint Quarries, Cass County
2. Signal Butte Prehistoric Indian Site, Scotts Bluff County
3. Leary Site Oneota Culture, Richardson County

B. Early fur trade and explorations.

1. Ft. Charles (not yet located), thought to be in Dakota County
2. Ft. Atkinson, Washington County

C. Interpretation of Plains Indian culture.

1. The most suitable site located thus far is the Pawnee Village east of Red Cloud in Webster County. The site which is ultimately developed should be a representative village or camp site, preferably a village, which depicts continuous or intermittent habitation for a considerable period of time. The sequence of cultural occupation should be illustrated.



2. Wright Site Protohistoric Pawnee Village, Nance County.
 3. Linwood Site — historic Pawnee Village located near Skull Creek, Butler County.
- D. Interpretation of the history of the Missouri River.
- This should be an interpretive installation which illustrates the geological development of the Missouri River, the Indian population, the fur trade, exploration, early river traffic, and present uses. The installation should be located in a natural river setting with good access. The area should be a logical visitation point along the Lewis and Clark Trail. In view of the environmental requirements and access, Nemaha County near Brownville would be the logical location.
- E. Expansion and westward migrations.
1. Completion of acquisition, restoration, and interpretation of Ash Hollow and Windlass Hill, Garden County.
 2. Acquisition and interpretation of a "satellite camp" of Fort Kearny, Kearney County.
 3. Acquisition, development, and interpretation of a massacre site in Hitchcock County or site of a battle between Indians and/or emigrant wagon trains and cavalry.
 4. Robidoux Pass, Scottsbluff County.
 5. Pony Express Stations — Gothenburg, Alkali, Diamond Springs, Mud Springs.
- F. Military-Settler phase.
1. Completion of restoration and interpretation of Fort Hartsuff, Valley County.
 2. Development and interpretation of Rock Creek Station in Jefferson County which has significance as a site along the Oregon Trail, a Pony Express station, Overland Stage and freighting station, and the site of the Hickok-McCanles fight.
 3. Restoration and interpretation of a Kin-kaid cabin.
 4. Haumont Sod House, Custer County. This is a two-story sod house in excellent condition which is unique rather than representative.

G. Industry.

1. Acquisition, restoration, and interpretation of Lime Kiln near Fairbury in Jefferson County which supplied Fort Kearny with lime for building construction.
2. Interpretation of potash industry in western Nebraska.
3. Past and present agricultural industry.

H. Cultural.

1. Development of a state historical park to illustrate and interpret the air age with emphasis on the retaliatory and deterrent capabilities of the Strategic Air Command and its preceding air arms. The opportunity exists to develop such a facility at Offutt Air Force Base, Omaha, in co-operation with the U. S. Air Force which will contribute various air frames and weaponry, as well as technical assistance in support of the project.
2. Development of a typical rural school in a proper outdoor setting in which day-use may also be provided.
3. Acquire, stabilize, and provide interpretation of octagonal brick house southeast of Nebraska City in Otoe County. Day-use area may be provided also.
4. Mobile unit to illustrate the cultural and historic development of Nebraska. This unit should be flexible and mobile enough to satisfy the requirements of all areas. It may be used at major state areas to supplement existing interpretive facilities or for maximum use periods at sites which have no interpretive facilities.



FACILITY AND PROGRAM NEEDS BY ACTIVITY

Picnicking

Picnicking is a traditional family activity in Nebraska both as a primary and a complementary activity. Peak season participation is expected to increase 17 percent by 1972, 40 percent by 1980, and 134 percent by the year 2000.

Gross quantitative needs have been calculated on the basis of peak-day capacity. An estimated 60 percent of the picnicking occasions occur on 14 peak days of the peak season. Each picnic unit can accommodate an average of eight persons per day. For the purpose of calculating land needs, it was estimated that seven tables can be located on each acre of land. Design load factors obtained from these assumptions were then applied to the peak season resident demand for each socio-economic area to obtain gross estimated needs for each socio-economic area. Deficiencies were obtained by the differ-

- (1) Additional picnicking facilities to satisfy local resident demand primarily in the urban areas. These needs should be satisfied through urban public developments and by private facilities. Nonurban user-oriented areas located near population centers can also serve a portion of these needs.
- (2) Picnicking facilities at nonurban recreation areas to serve visitors, as a complementary activity to others such as fishing, boating, or camping.
- (3) Picnicking facilities at areas designed primarily to service transients.

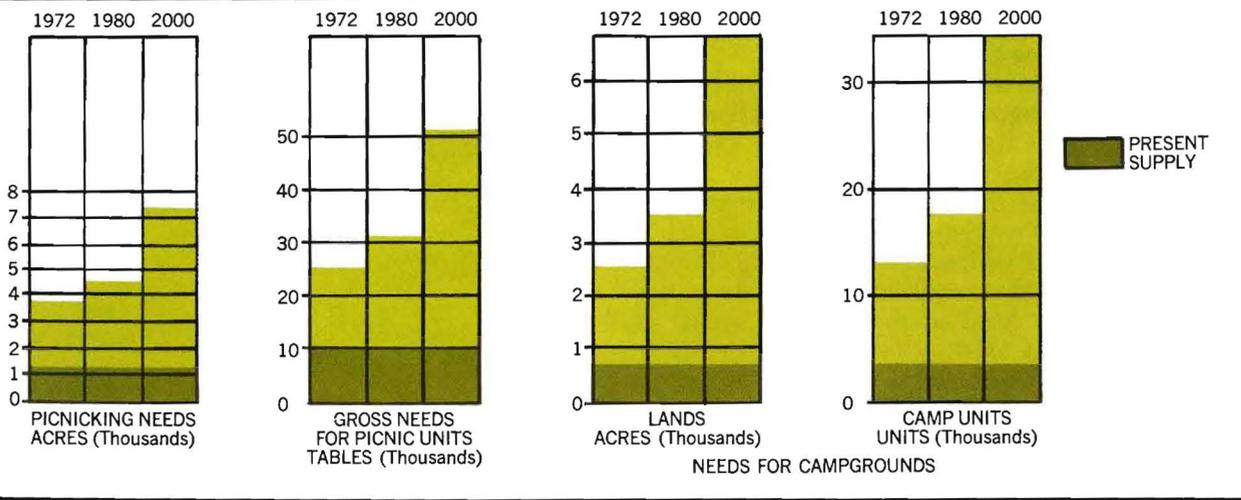
Camping

Demand for camping facilities by residents and nonresidents will rise rapidly. Resident demand during the peak season will increase an estimated 46 percent by 1972, 96 percent by 1980, and 308 percent by 2000. Approximately 68 percent of the resident demand by 1980 will originate in the Lincoln and Omaha areas.

Quantitative resident needs were calculated on the basis of facilities required to service peak-day demand. Some 60 percent of the camping occasions during the peak season occur on 14 peak days. Each camp unit will accommodate four persons per day, and five units can be located on each acre of developed campground. Deficiencies are based on the difference between estimated needs for the respective target years and the present capacity in each socio-economic area.

Deficiencies identified by these methods are somewhat inflated since primitive camp areas will and are satisfying a significant part of the total demand. Private enterprise can also provide a substantial portion of the camping needs, especially for transient campers.

Camping needs can be grouped as follows: (1) developed campgrounds near large urban centers to provide weekend camping; (2) developed campgrounds to service vacation as well as weekend campers; (3) primitive camp areas; (4) transient campgrounds, particularly



ence between estimated needs for target years and present capacity, both urban and nonurban.

Nebraska will need an additional 1,632 acres of developed picnic areas by 1972, 2,373 acres by 1980, and 5,419 acres by 2000. Over 90 percent of these deficiencies are associated with the Omaha and Lincoln SEAs. Primary needs for facilities include:



Popular activities of picnicking and camping continue to grow. By 1972, picnicking will increase by 17 percent and camping by 46 percent



Private landowner holds the key to hunting opportunity for sportsmen as well as to the game populations

along I-80 and other major highways (treated under State Wayside Areas); (5) group camps, and (6) day-camp facilities in and near urban areas.

Hunting

Private lands provide most of the hunting opportunity in Nebraska, since over 97 percent of the land is privately owned.

Game populations depend on the landowner's manipulation of the land and its plant life. Consequently, the potential for additional hunting opportunity is closely related to agricultural programs amenable to the production of game.

Increasing recognition has been given to wildlife as a product of the land in federal agricultural programs, particularly those directed to land conversion or retirement. Many of these affect large acreages at a given time. Thus, if habitat needs are considered during development of a program, the potential benefit to wildlife may be highly significant. Since wildlife is a product of the land and a public resource, every effort should be made to insure benefits to wildlife under these programs.

Exotic or introduced species have played an important role in providing hunting opportunities, particularly in ranges deficient in game birds. The ring-necked pheasant and Merriam's wild turkey are excellent examples. A prime illustration of range deficient in game birds is the unbroken short grass plains of western Nebraska. A particular effort should be made to find a species adapted to and capable of producing a huntable population in this area.

Problems of access to private lands for public hunting, involving landholder-sportsman relationships, are prevalent in the east near large metropolitan centers. Programs should be developed to inform the sportsman of landholder problems and the necessity for proper conduct and good sportsmanship while hunting on private lands. These programs should be oriented to both action and education. Organized sportsmen should assume the leadership.

Hunting opportunity is sorely needed in eastern Nebraska, particularly for waterfowl.

Development of public management units and access to streams and marshes which have substantial wildlife potential should be provided by easement or acquisition. These areas may also be used for many other outdoor activities in addition to hunting.

Hunting of mourning doves is prohibited by legislation. Exceptionally high populations occur in the state and the range extends into all geographic regions and most habitat types. If legislation should be enacted which allows dove hunting, opportunity for additional sport throughout the state can be increased significantly without jeopardizing the status of the resource.

Fishing

Demand for fishing will increase 6 percent by 1972, 20 percent by 1980, and 61 percent by 2000. Water needs to satisfy the demand in each socio-economic area is an estimate based on capacity of various types of water area for angler use in fisherman days and still provide a quality fishery under a reasonable level of management.

Standards (fisherman days) used to estimate fishing capacity for various waters

Reservoirs over 1,000 acres . . .	25
Reservoirs under 1,000 acres . .	40
Natural lakes	60
Farm ponds	25
Streams . . .	Varies from 25 to 500 per mile depending on class of stream.

Based on this method, the capacity is adequate or in excess of that needed in socio-economic areas in west-central Nebraska. Present deficiencies in other areas total 3,023,000 fisherman days and will increase to over 4,000,000 by 1980. The greatest deficiencies are associated with the Lincoln and Omaha areas.

Creation of new waters provides the greatest opportunity for meeting the demand. An additional 75,000 to 120,000 acres are needed to meet present demand. By 2000, this will increase to over 200,000 acres. Future development of multi-purpose reservoirs now on the drawing



Boating and water skiing attract more enthusiasts yearly. Water skiing demand is growing faster than any other activity, with a 59 percent gain expected by 1972



The old fishing hole cannot meet need. It'll take 75,000-120,000 acres of new water just to fill present demand

Gross needs for additional fishing capacity in fisherman days by socio-economic areas in Nebraska
(Demand, present capacity and deficiencies expressed as activity occasions)

	Demand				Present Capacity	Deficiencies			
	1967	1972	1980	2000		1967	1972	1980	2000
South Sioux City	103,290	104,753	111,522	131,317	51,140	52,150	53,613	60,382	80,177
Omaha	1,643,278	1,861,444	2,281,127	3,834,620	104,985	1,538,293	1,756,459	2,176,142	3,729,635
Lincoln	797,216	868,083	1,016,123	1,567,132	236,065	561,151	632,018	780,058	1,331,067
Beatrice	242,343	225,569	209,455	125,892	94,325	148,018	131,244	115,130	31,567
Norfolk	351,188	355,019	378,562	443,381	282,325	68,863	72,694	96,237	161,056
Columbus	192,175	198,432	219,154	289,656	66,735	125,440	131,697	152,419	222,921
Grand Island	339,730	347,429	376,535	464,753	127,335	212,395	220,094	249,200	337,418
Hastings	242,239	247,511	268,248	333,756	51,465	190,594	196,046	216,783	282,291
Kearney	207,336	213,972	234,973	306,630	377,360	—	—	—	—
McCook	143,744	138,284	143,052	123,445	289,790	—	—	—	—
North Platte	253,180	258,745	280,166	349,790	278,855	—	—	1,311	70,935
Ogallala	65,512	63,021	62,367	56,092	1,090,070	—	—	—	—
Valentine	169,779	92,586	147,848	93,128	1,568,025	—	—	—	—
Scottsbluff	328,735	342,020	383,029	541,995	202,405	126,330	139,615	180,624	339,590
Totals	5,079,745	5,316,868	6,112,161	8,661,587	4,821,060	3,023,234	3,333,480	4,028,286	6,586,657

boards of water resource development agencies can meet a substantial part of these needs if ultimately authorized by Congress.

Improved fisheries management of existing waters and watersheds and pollution abatement programs will also contribute to meeting some of the needs. Continued and intensive efforts should be directed to these areas.

The sport fishing potential of many fishable waters is not realized because of poor access. Access easements or purchase may be the only method available to open these waters for additional use. Particular emphasis should be placed on major stream courses in eastern Nebraska.

Five fish hatchery installations are presently maintained. With the increased tempo of lake

renovations and the number of water development projects in progress or planning stages, the demand for hatchery-reared fish will soon surpass the capacity of existing facilities. Additional facilities will be required.

Average hatchery production of warm water fish is 1.93 million fingerlings. The annual demand is 1.4 million for present management programs, leaving only 500,000 fingerlings annually for stocking new waters. This reserve capacity will not meet the potential demand created by new reservoir developments.

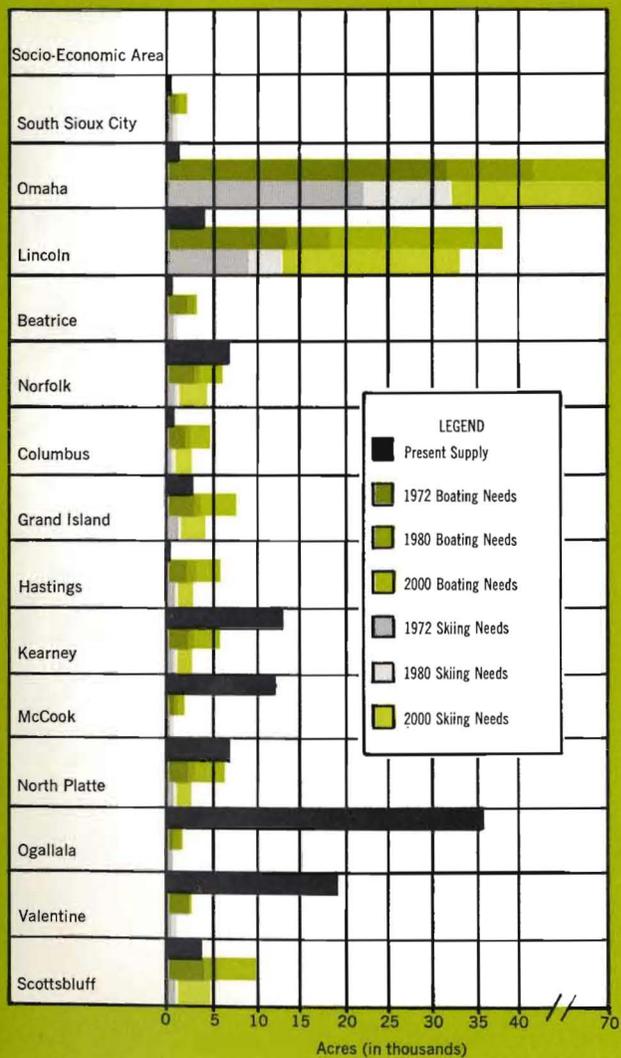
Average annual production of trout is 176,000 of which 170,000 are raised to catchable size and 6,000 are stocked as fingerlings. This represents the maximum production of catchable trout with present facilities. Development of additional put-and-take facilities and an average annual increase of 7 percent at Two Rivers Trout Lake will require additional capacity by 1972.

Boating and Water-skiing

Boating and water-skiing are rapidly gaining in popularity and participation will increase greatly over the next few years. Water-skiing demand, on a percentage basis, is expected to grow faster than for any other outdoor recreation activity. Peak season demand will climb by 59 percent by 1972, 127 percent by 1980, and 462 percent by the year 2000. Quantitative estimates of resident needs for water for boating and water-skiing were made using the design-load concept.

Reservoirs built for flood control purposes and to furnish water supplies for municipal, industrial, and agricultural uses can also meet recreation needs when they are properly developed and managed. A need for development of additional waters which can satisfy the desire for boating and water-skiing is particularly evident in eastern Nebraska. Completion of multi-purpose reservoirs, authorized or in planning stages, and small watershed programs should satisfy most of the needs for boating waters in eastern Nebraska. A much discussed reservoir on the Platte River between Omaha

Boating and water-skiing needs by socio-economic area
1972, 1980 and 2000 compared to present supply



and Lincoln would be located in a strategic place for recreational purposes. The impact of such a reservoir on outdoor recreation would be highly significant.

There are many potential sites for development of additional water-based recreational areas throughout the state which can be utilized to meet the needs of Nebraskans. Continued cooperative action on the part of federal, state, and local governmental units will be necessary in order to adequately provide for these recreational needs.

Outdoor Swimming

Needs for outdoor swimming facilities are considered under two separate categories, outdoor swimming pools and swimming beaches. It was assumed that about 15 percent of the total demand for swimming will be satisfied by swimming beaches and the remainder by swimming pools.

Overall demand for outdoor swimming in Nebraska is high and will increase in popularity in the future. On a peak season basis, outdoor swimming is one of the most popular activities. Demand for this activity in 1967 was estimated at over six million activity days. This demand is expected to more than triple by the year 2000 with over 20 million activity days per season.

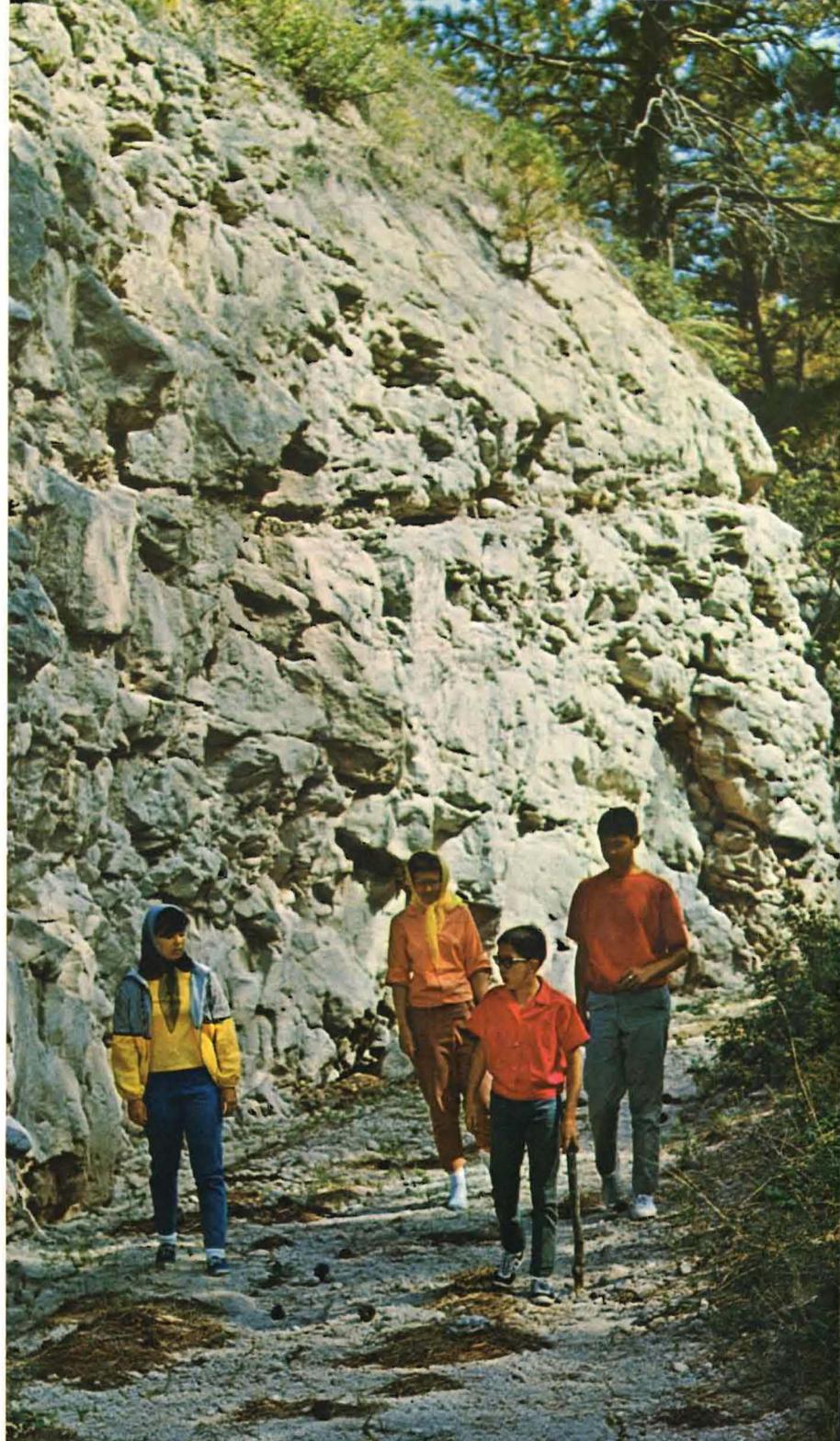
Needs for additional municipal swimming pools were determined from standards on population and population distribution. The standards used were:

- (1) Metropolitan — one municipal pool of about 7,500 sq. ft., or its equivalent, for each 10,000 population.
- (2) Cities of the 1st class — 7,500 sq. ft for each 10,000 population¹ or major fraction.
- (3) Cities of the 2nd class — one pool.
- (4) Village needs were determined on the basis of distribution with one pool per village in each area which does not have another swimming pool within 10 miles.

¹Based on serving 3 percent of the population at any given time with 25 sq. ft. of water surface allotted for each user.



Walking for pleasure is the second most popular outdoor activity with Nebraskans. While horseback riding is popular, the animal is still a necessary part of ranch life today





Cycling continues to gain fans, although there are no bicycle trails in Nebraska. There is also a glaring need for better swimming pool distribution. Demand for swimming areas will triple by 2000

Outdoor municipal pool needs by socio-economic area

Socio-Economic Area	Present Supply of municipal pools	Minimum additional municipal pools needed
South Sioux City.....	2	4
Omaha.....	23	36
Lincoln.....	17	12
Beatrice.....	8	1
Norfolk.....	20	4
Columbus.....	7	1
Grand Island.....	11	4
Hastings.....	9	3
Kearney.....	10	4
McCook.....	12	4
North Platte.....	7	8
Ogallala.....	7	1
Valentine.....	8	14
Scottsbluff.....	10	5
Total.....	151	101

The most glaring need is for a better distribution of pools, especially within the larger cities and between villages in the more sparsely populated areas. A good distribution of swimming pools is especially important because of the high proportion of youngsters who participate.

There are a variety of needs for outdoor swimming facilities in Nebraska. Additional municipal swimming pools are needed to service those people who presently do not have pools in their vicinity. Replacement of existing municipal swimming pools will be needed in the future since some pools are over 40 years old and rapidly deteriorating. Pools should be available on highly used areas such as state parks. Swimming beaches and facilities at major water-based recreational areas which are presently being used for swimming should be further developed.

Hiking, Nature Study, and Walking

Walking for pleasure is estimated to be the second most popular outdoor recreational activity. Although projections show that this activity will slip to third in popularity by the year 2000, participation will more than double. Walking for pleasure can take place almost anywhere but mostly at or near the place of residence. Imaginative subdivision developments which provide safe and attractive walkways within residential areas and between these areas and commercial facilities or recreation areas would enhance the activity substantially.

Hiking demand is expected to increase at a more rapid pace than walking for pleasure and nature walks, reflecting the apparent trend away from the more passive pursuits toward the more active and strenuous activities. Hiking occasions are expected to triple from the present 370,000 to about 1.3 million occasions by 2000.

Approximately 244 miles of hiking trails and 104 miles of nature trails will be needed by 1972. The primary need is in eastern Nebraska near the large urban centers. Location and development should reflect consideration of youth groups, such as the Boy Scouts.

Interpretation of plant and animal life should be provided at major wildlife management areas or other areas of significant natural phenomena. Illustrative of these opportunities is a potential overlook with interpretive facilities at Plattsmouth Waterfowl Management Area to view the large concentrations of geese. Observation points along I-80 with interpretation offer a unique experience in viewing the spectacular spring flights and concentrations of Sandhill cranes.

Horseback Riding

Use of horses is both a recreational and an occupational tool in Nebraska. Horses are still used by the ranchers in the vast cattle country of the Sand Hills and short-grass plains. On weekends the ranchers' vocation often becomes his avocation. Organized rodeos, impromptu gatherings for calf-roping, and cutting horse contests are both participant and spectator activi-

ties for many rural people of north-central and western Nebraska.

Resident demand is estimated to be over 1.2 million activity days per year. Demand among residents is expected to increase, but only at about the rate which population increases. Much of this demand originates from Nebraska's youth and most is presently being satisfied through private sources, particularly in the rural areas of the state.

The greatest need for developments to satisfy resident needs for horseback riding is found in the more heavily populated areas of eastern Nebraska. Full participation in the Lewis and Clark Trail system would satisfy some of these needs. Additional horseback riding facilities on or near major recreational areas should be developed through action by public agencies and commercial enterprise.

Perhaps the greatest opportunity to meet these needs lies in the private sector. Dude ranches, tourist farms, and commercial recreation enterprises could derive additional income by providing saddle horses and riding areas for a fee. Farms and ranches located near large population centers might also derive supplemental incomes in this manner.

Bicycling

Demand for bicycling will continue to grow at a steady rate with participation increasing from the present estimated 5 million activity occasions to over 7 million by 1980 and 11 million by the year 2000. At present there are no designated bicycle trails in Nebraska, although an extensive bikeway system is currently under development by the City of Omaha. Most of the present demand is being satisfied on city streets, highways, country roads, and public parks.

The most important need is to provide places for children and families to bicycle in or near their residential area. Recent urban development concepts incorporating a trail system for bicycling have much merit and deserve consideration in private and public planning efforts. These systems could reduce the inherent dangers where children have no place to ride except on busy streets and sidewalks.



With the strenuous pursuits gaining increased favor, Nebraska will need 244 miles of hiking trails by 1972



With high participation by youth, needs for ice skating should be met within or near municipalities

Driving for Pleasure and Sightseeing

Resident demand for both of these activities is expected to continue increasing as population, incomes and the amount of leisure time available for outdoor recreation rises. Nonresident demand for these activities, particularly sightseeing, will increase substantially with the completion of the major east to west superhighway, Interstate 80. Further increase in demand can be expected if a major north to south interstate route is developed in the next 10 to 20 years.

Scenic highways have been under study by the State Department of Roads and the Nebraska Game and Parks Commission. Landscaping of existing highways is needed in many areas. Scenic overlooks could be developed to provide better viewing points and to enhance photography opportunities. Effective billboard control is currently practiced on Interstate 80 and should be extended to other highways having scenic value.

Winter Sports

Ice skating, skiing, sledding, and tobogganing are the major outdoor winter sports. Practically no skiing facilities exist in the state and the potential for future development is limited by the lack of sustained periods of snow cover and natural slopes suitable for skiing. The major portion of skiing demand which originates in Nebraska must be satisfied outside of the state.

Ice skating is our most popular outdoor winter sport. The demand for ice skating totals over one million activity days. This demand is expected to increase by 44 percent during the next 5 years, 93 percent by 1980, and 297 percent before the turn of the century. Sledding and tobogganing demand is only about one-fourth of the ice skating demand (267,000 occasions in 1967) and is expected to increase in popularity at a lesser rate.

Based on a standard of one acre developed for ice skating for each 2,500 people over 12 years of age, an additional 301 acres for ice skating will be needed by 1972 and 359 acres by 1980.



*Sightseeing is always popular,
and scenic highways are under
study by two state departments*

Participation in games and sports will triple by 2000. Provision of specialized facilities rests with local governments, private sector



Since these are day-use activities with high participation by youth, the needs should be satisfied within or near municipalities.

Games and Sports

Participation in games and sports is expected to grow approximately 31 percent by 1972, 71 percent by 1980, and 226 percent by the year 2000. The present demand of about 14 million activity days will more than triple by the year 2000. Provision of specialized facilities for these activities rests almost entirely with local governments and the private sector. Demand and needs will be particularly evident in the urban areas.

Standards used as guidelines for development of golf courses under the Nebraska Comprehensive Outdoor Recreation Plan include:

- (1) Rural areas and cities less than 30,000 population. One golf hole per 1,000 county population (population within a 25-mile service radius may be substituted for the county).
- (2) Metropolitan areas. One golf hole per 2,000 people.

Sixteen additional golf courses with a total of 261 holes are needed to meet minimum identified standards. Primary needs for future developments to satisfy golfing demand are:

- (1) Development of new courses particularly in the eastern portion of the state to service primarily urban areas which do not have adequate public facilities.
- (2) Improvement of existing golf courses including conversion of sand green to grass green courses.

In many villages and smaller cities a considerable proportion of the demand for games and sports is satisfied by school-owned playgrounds and sport facilities.

The most evident need for specialized facilities is within the metropolitan areas and larger cities. Small cities and villages which do not provide these facilities, either at the municipal level or through their school system, should develop basic facilities for games and sports which



Needed neighborhood play areas should be located within quarter of a mile of homes to be served

Minimum criteria for playgrounds and playfields in municipalities.

	SMSA	1st Class Cities	2nd Class Cities	Villages
I. Playgrounds	One acre per 800 population	One acre per 800 population	One acre per 800 population	One acre per village
II. Playfields				
(1) Fields	One field per 20,000 population	One field per 10,000 population	One per City	One per village
(2) Acreage	One acre per 800 population	One acre per 800 population	One acre per 800 population minimum 5 acres	Five acres
(3) Special Areas				
a. Ballfields	One field per 6,000 population	One field per 6,000 population	One ball-field	One ball-field
b. Tennis Courts	One per 2,000 population	One per 2,000 population	One per 2,000 population	

although a section is normally set aside for use by children. The minimum size will depend upon the population serviced and activities planned. There should be a playfield within a half mile of every home, the distance depending upon population density and ease of access. In general, a playfield will meet the needs of the people living in a district served by four neighborhood playgrounds. Since the playfield provides many facilities used by junior and senior high school students, there are advantages in locating the playfield on or adjoining a high school site. Among the common playfield features are a children's playground, areas for field games and sports, and batteries of game courts.

Other games and sports facilities, such as rifle ranges, trap and skeet ranges, and pistol ranges should receive consideration in municipal planning efforts when local needs can be shown. The state should provide areas, particularly in eastern Nebraska, for both big-bore and small-bore rifle ranges and designate certain areas as hand-trap ranges.

Facilities for attending outdoor sporting events, concerts, and dramas will also need to be developed to satisfy the growing demand for these spectator activities. Most of these needs should continue to be provided at the local level.

Handicapped Needs

Special consideration should be given to providing outdoor recreation opportunities to Nebraska's physically and mentally handicapped persons. Several special needs can be served through increased participation in outdoor recreational activities. Recreational opportunities can help these people develop their physical and emotional potential as well as enriching their leisure time and helping them achieve added self-confidence, become more self-sufficient, and improve their physical co-ordination.

Available statistics indicate that approximately 10 percent of Nebraska's population may suffer from some sort of physical or mental handicap. An estimated 45,000 to 72,000 people suffer some degree of mental retardation. Of this latter group, about 60 percent are mildly

will serve the town population as well as the surrounding rural area.

Neighborhood playgrounds are designed primarily to serve the play needs of children 6 to 14 years old. Size varies according to the size of the city but normally are from three to seven acres. Playgrounds should be located within a quarter mile of the homes which they are to serve. Since the playground is used to a large extent by children of grade school age, a good location may be at or adjoining the elementary school site.

Well-developed playgrounds should provide an area for preschool children, an apparatus area, open spaces for informal play, fields and courts for a variety of games, shaded areas for quiet activities, and a shelter area.

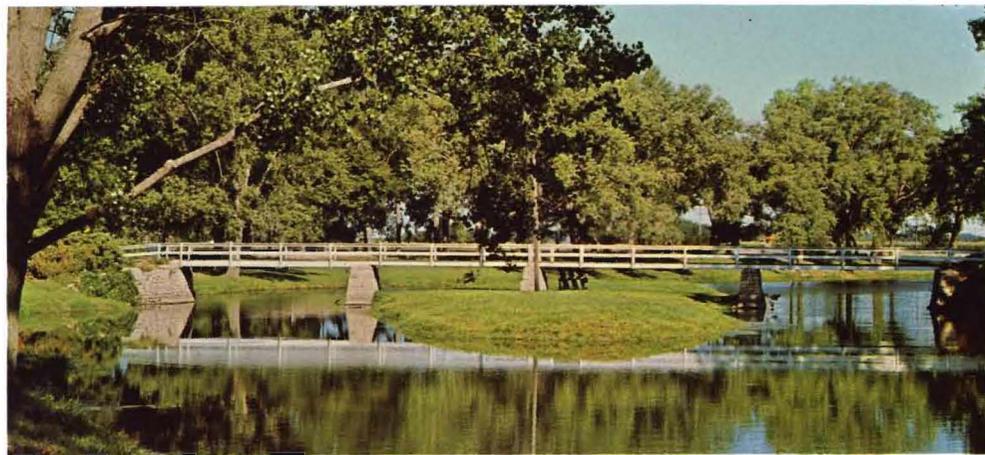
Playfields provide facilities for diversified recreation activities by young people and adults,



retarded and suffer only a few accompanying physical handicaps. The remaining 40 percent suffer from more severe mental retardation and usually accompanying physical handicaps as well.

Action on the part of all levels of government and by the private sector will be necessary if the needs of this important, though often neglected, segment of Nebraska's population are to be met sufficiently.

Special consideration should be given to providing various forms of outdoor recreation opportunity to meet particular needs of the physically, mentally handicapped



IMPLEMENTATION

DELINEATION OF RESPONSIBILITIES

Action by all levels of government and the private sector will be necessary if present and future needs for outdoor recreation are met. Responsibility for providing facilities should rest at the lowest level of government which is financially and legally capable of acquiring, developing, and maintaining outdoor recreation areas.

Federal agencies should have the responsibility of acquiring, developing, and maintaining needed recreation facilities on existing land owned and managed by these agencies and of acquiring and developing those areas of national significance which are within the policy framework of the various agencies.

The *state* shall have the responsibility of developing and maintaining those types of outdoor recreation areas and facilities which have national, statewide, or regional significance and which extend beyond the financial and organizational capabilities of counties or municipalities. Such areas and facilities may include, but are not limited to, major state parks, regional and state recreation areas, wayside parks, historical parks, public hunting areas, access sites to navigable and fishable waters, picnic areas, and natural areas.

Counties of the state have not assumed an active role in development and administration of outdoor recreation programs to satisfy regional or local demands. Consequently, this responsibility has been assumed largely by the state, as evidenced by many small recreation areas which primarily serve a local demand.

Counties should be urged to assume leadership in acquisition, development, and maintenance of parks, and outdoor recreation programs that would serve the needs of communities broader than a municipality but less than statewide or regional in scope. Outdoor recreation programs of counties should include but not be limited to regional or county parks and recreation areas offering a wide range of activities, historic areas of local significance, natural and

scenic areas, maintenance of access roads to recreation areas, and local leadership.

The role of *municipalities* is obvious. They must assume the responsibility of providing outdoor recreation facilities which satisfy primarily the needs of a given urban community. Provision of facilities to satisfy the needs of youth, senior citizens, or other non-mobile groups is of particular significance.

Provision of specialized outdoor recreation facilities by the *private sector* to the public is dependent upon profit returned to the operator. Thus, specific responsibilities cannot be assigned to private enterprise. Public agencies, however, do have a responsibility to those who provide facilities to the public as a business venture. The state or its political subdivisions should not be a competitor to private enterprise where private developments for public use can be provided profitably at a reasonable fee. Co-ordination of developments between public agencies and private groups is necessary to insure the best results in overall public benefits.

PROGRAM FOR IMPLEMENTATION

Nebraskans' desire for outdoor recreation opportunities continues to grow. The obvious needs for both acquisition and development of outdoor recreation areas are recognized by federal, state, and local officials who are at the same time faced with growing demands for all of the other public facilities and services—education, health and welfare, urban renewal, increased transportation facilities, and many others. Thus, recreation programs must compete for available funds and resources. Agencies providing public outdoor recreation opportunities should seek to provide maximum recreation benefits to the people through optimum use of available resources.

With the wide range of socio-economic conditions in Nebraska and the disparity of population distribution, a balance of outdoor recreation opportunities of metropolitan, urban, and rural populations will be difficult to

attain. It must be recognized that the greatest demand and need for both municipal and non-urban user-oriented outdoor recreation resources are generated in the metropolitan and larger urban centers.

The total outdoor recreation program within the state must be balanced between: (1) responsibilities, activities, and interaction of the federal, state, and political subdivisions of the state and the private sector; (2) metropolitan, urban, and rural segments in outdoor recreation opportunities for both nonurban and municipal facilities; (3) resource-oriented and user-oriented outdoor recreation resources; and (4) outdoor recreation facilities to satisfy the interests of various publics.

DEVELOPMENT OF PRIORITIES

Priority should be given to those projects which (1) are in accord with a comprehensive planning effort; (2) meet the urgent needs of urban populations; (3) can be financed only through public funds appropriated specifically for outdoor recreation; (4) give reasonable consideration to the needs of handicapped, aged, and disadvantaged groups; (5) benefit the general public; (6) use basic as opposed to elaborate construction; (7) encourage active participation; (8) meet acquisition needs in areas where there is a shortage of recreation lands; (9) meet existing needs; (10) meet prior commitments under previous planning programs.

The state will assign one of the priorities given below for all projects submitted for assistance under the Land and Water Conservation Fund Act of 1965 and follow the general concept in development of other programs in which it may be involved, constantly seeking to develop and maintain a balanced program to achieve the goals and objectives. After full consideration of the previous criteria, the priority assigned will reflect urgency and need.

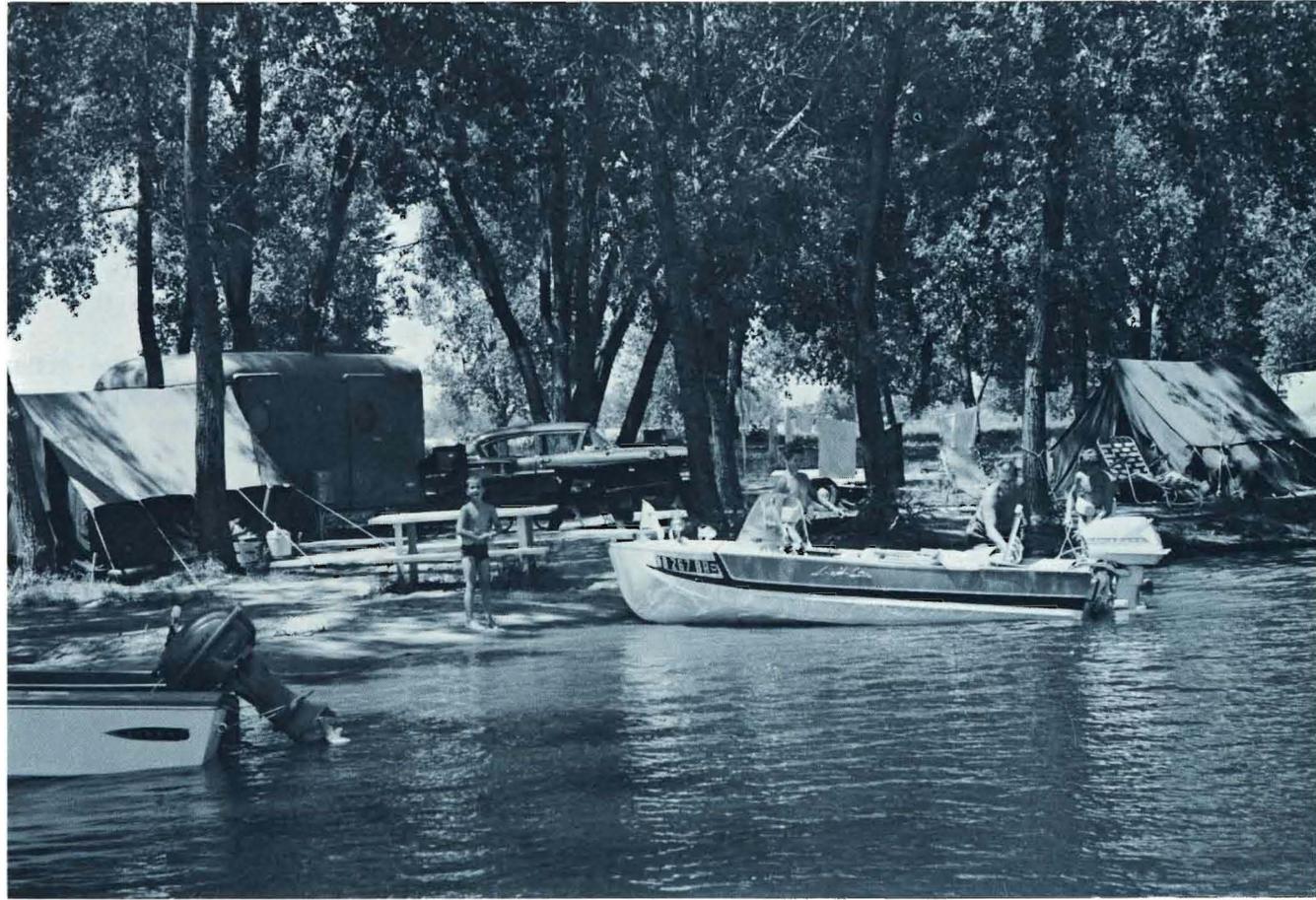
Priority A — Includes all projects for which action is needed immediately.

Priority B — Includes those projects on which action must be taken in the near future or

an opportunity to preserve a valuable resource will be lost or the needs of a broad segment of the public will not be met.

Priority C — Includes those projects on which action must be taken in the future to meet needs that exist now.

Priority D — Includes those projects for which, although immediate action is desirable, financing can be deferred for a period. Such projects would generally be designed to



Officials recognize need for more areas like this. However, recreation must compete for necessary funds

meet foreseeable future needs that do not fully exist at the time of submission of a proposal.

Capital Improvement Program

The outdoor recreation capital improvement program for Nebraska is presented in two sections — acquisition and development. Compilation of the planned acquisition and development programs were made through the co-operative efforts of federal, state, and local officials. All federal agencies with outdoor recreation responsibilities were contacted and asked to furnish information on their planned expenditures for outdoor recreation purposes during the next five years. Each Nebraska municipality having 1,000 or greater population was also asked to furnish their estimated expenditures for outdoor recreation lands and facilities over the coming five years. This information along with the estimates from the Game and Parks Commission's six-year capital improvement program forms the basis of the action program outlined here.

Successful implementation of the action program will depend, of course, upon congressional approval and appropriations for federal projects, legislative authorization and appropriation for state projects, and the ability of political subdivisions to finance local projects.

Acquisition

Land needs are essentially of two types: (1) lands needed to provide user-oriented opportunities for residents and nonresidents in or near population centers and travel routes, and (2) lands needed to effectively protect, preserve, and utilize natural or cultural resources for outdoor recreation, including scenic and historic sites, fish and wildlife lands, state parks, forest lands, river access sites, and natural environments.

Quite naturally, federal and state acquisition programs will be more heavily oriented to resource-based land acquisition than programs

of political subdivisions. The program as outlined should serve as a general guide, but it must remain flexible enough to take advantage of significant opportunity should areas having high outdoor recreation potential become available. This flexibility is particularly necessary for the state program since many of the lands having high recreation potential are those located near federal water development projects. Thus, state acquisition programs are greatly affected by the timing of these projects by Congress and the federal government.

Since the Game Commission does not have general authority to exercise eminent domain, most outdoor recreation lands must be acquired from willing sellers. Thus, the opportunity to act quickly is often the key to a successful acquisition project. Under these conditions, opportunism must play a role in the state program. Should significant opportunities occur, total acquisition may exceed that identified. Conversely, should the Commission be unable to negotiate for some planned acquisitions, total acquisition may be substantially less than identified.

The action program for the federal agencies reflects a composite of land acquisition estimates received from the U.S. Army Corps of Engineers, U.S. Forest Service, the National Park Service, the U.S. Bureau of Reclamation, and the U.S. Fish and Wildlife Service. Estimates do not include the cost of acquiring lands needed for federally-sponsored water development projects since the status of these projects is rather fluid. Major projects are: (1) acquisition of wetlands in south-central Nebraska for waterfowl production and public hunting; (2) acquisition of boat access sites along the Missouri River; (3) acquisition of additional forest lands, and (4) purchase of needed lands at Agate Springs Fossil Beds National Monument.

Lands needed for water resource development projects may be purchased during the next five years should Congress grant approval for the projects. The most likely developments are the Papillion Watershed in the Omaha SEA and the North Loup and Cedar divisions in the Grand Island and Valentine SEAs.



West Nebraska is water-rich, but multi-purpose reservoirs and small watershed programs should fill the obvious void in populous eastern portion

Summary in acres of five-year federal, state, and local recreation land acquisition planned by socio-economic area

Socio-Economic Area	Federal	State	Local	Total
South Sioux City.....	16	1,170	64	1,250
Omaha.....	152	2,143	1,567	3,862
Lincoln.....	1,683	3,420	627	5,730
Beatrice.....	2	3,609	240	3,851
Norfolk.....	0	2,012	146	2,158
Columbus.....	0	545	120	665
Grand Island.....	0	474	265	739
Hastings.....	4,100	2,487	238	6,825
Kearney.....	1,640	1,901	162	3,703
McCook.....	820	455	134	1,409
North Platte.....	0	4,291	83	4,374
Ogallala.....	0	1,400	50	1,450
Valentine.....	0	19,140	820	19,960
Scottsbluff.....	5,850	9,487	996	16,333
Total.....	14,263	52,826	5,512	72,601

Potential outdoor recreation lands and waters associated with planned water resource development projects or those which are being planned in eastern Nebraska will, if approved by Congress and activated, meet many of the needs identified for nonurban outdoor recreation lands and water. Thus, substantial acquisition projects for high density recreation lands have not been programmed by the state to meet all identified needs in those SEAs where future water resource development projects will provide these needs.

Included for acquisition by the state are lands necessary for (1) expansion of Fort Robinson, Chadron, Ponca, and Indian Cave state parks; (2) development of the "Chain of Lakes" concept of water-oriented areas along Interstate 80, designed to serve both resident and non-resident outdoor recreation needs; (3) additional lands needed to expand and further develop the following state recreation areas: Dead Timbers,

Hord Lake, Decatur, Louisville, Victoria Springs, and a proposed state recreation area near Columbus; (4) hunting and fishing lands having reasonable potential for production of game and fish and/or public fishing and hunting; (5) historic sites including Fort Charles, Fort Hartsuff, Rock Creek Station and Fort Kearny, and (6) other lands, including those providing access to rivers and streams as well as those needed to enhance outdoor recreation opportunities at federal water resource development projects.

Additional outdoor recreation lands are critically needed in some urban areas, particularly in the Omaha area. In those urban centers of expanding populations, action is needed to acquire sufficient recreation lands to meet existing and projected needs before available and desirable areas are preempted for other purposes. Considering all urban and town areas of the state, however, expenditures for acquisition will probably receive less emphasis than development projects because of the urgent need for facilities to serve urban residents. Although federal and state programs such as the Land and Water Conservation Fund and the Open Space Program will provide needed impetus to urban outdoor recreation programs, many of the acquisitions and developments must be effected by local political subdivisions.

Development

Federal, state, and local outdoor recreation programs are giving increased emphasis to development programs in Nebraska. Approximately 76 percent of the total estimated expenditures for the 5-year acquisition and capital improvement program have been allocated for development of recreation areas for public use, environmental improvement, and to meet identified facility needs for both existing recreation lands and those yet to be acquired. Nearly 70 percent of the planned 5-year capital expenditures for the Commission are for development of outdoor recreation areas.

The emphasis on expenditures for development of outdoor recreation resources reflects

the normally high ratio of development costs to acquisition costs in Nebraska and the pressing need, particularly for the state park system, to fully develop and bring many existing state areas up to desirable standards for full and satisfactory public use. This also reflects the needs and emphasis on development identified in the 10-Year State Park Plan for acquisition and development of outdoor recreation areas under the state park system.

The action program for federal agencies reflects a composite estimate of recreation developments planned by the Corps of Engineers, Forest Service, Fish and Wildlife Service, and National Park Service. Estimates do not include separable costs for recreation and fish and wildlife enhancement at water resource development projects planned by the Corps of Engineers, Bureau of Reclamation, and Soil Conservation Service. These are treated in broad terms under planned federal water resource developments.

Major federal projects included are: (1) expansion of recreation facilities at Lewis and Clark Lake; (2) development of 16 boat access sites along the Missouri River; (3) additional outdoor recreation developments at Valentine and Niobrara national wildlife refuges; and (4) additional recreation developments for the Nebraska National Forest in northwest Nebraska.

The state development program is designed to further develop presently owned lands and begin development of recreation and supporting facilities at newly-acquired areas throughout fiscal years 1969 to 1973. Major developments will be undertaken at: (1) Indian Cave, Fort Robinson, and Ponca state parks; (2) at state recreation areas throughout the state; (3) historic sites including an aerospace museum at Offutt Air Force Base, Arbor Lodge, Ash Hollow, Buffalo Bill's Ranch, Fort Atkinson, Fort Charles, Fort Hartsuff, Fort Kearny, and Rock Creek Station; (5) development of recreation facilities adjacent to and in the vicinity of Interstate 80 for both residents and nonresidents; (6) wayside areas along other major highways; and (7) minimum facilities needed for access and sanitation at fishing access sites or other areas

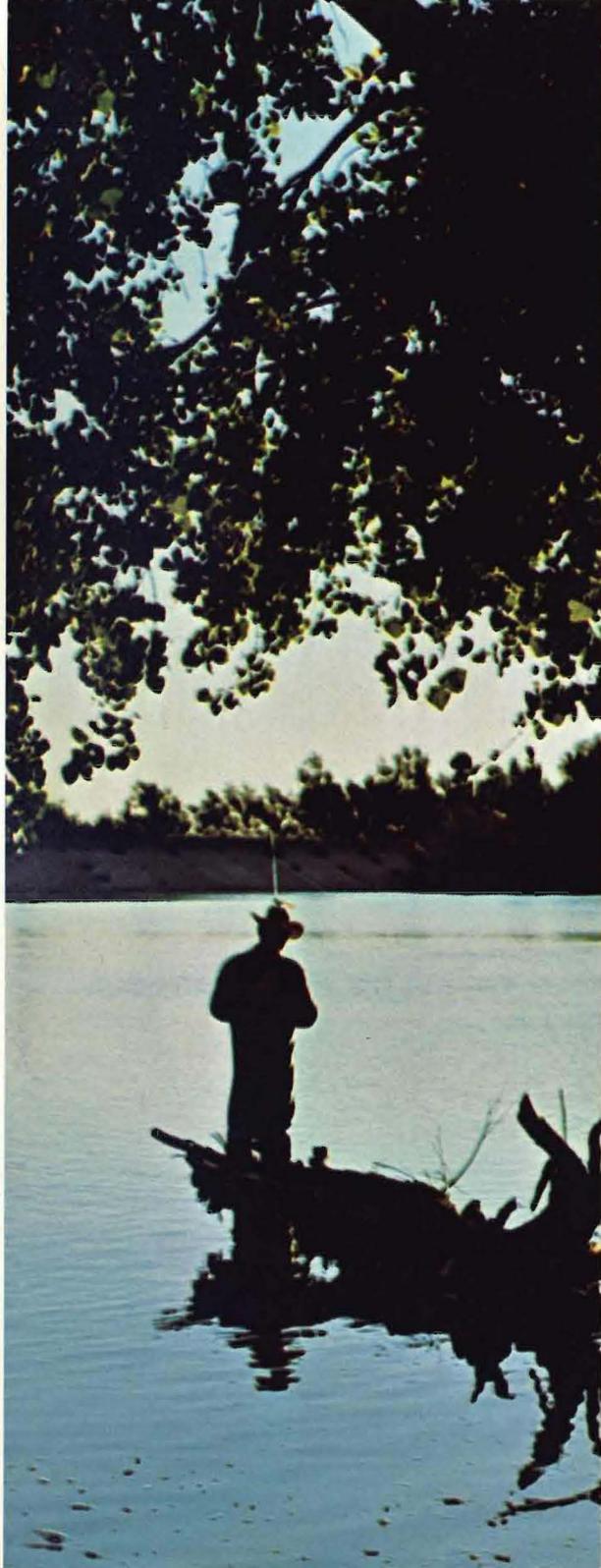
Summary of development portion of the Nebraska Game and Parks Commission proposed five-year capital improvement program.

Type of Development	FY 1969		FY 1970		FY 1971		FY 1972		FY 1973		Five-Year Total
Development of Major Area	Number of Areas	Estimated Cost	Areas	Cost	Areas	Cost	Areas	Cost	Areas	Cost	Total Cost
State Parks.....	3	264,000	4	775,000	5	700,000	4	702,000	4	700,000	3,141,000
State Recreation Areas.....	20	777,478	23	948,324	24	943,580	16	737,455	27	805,520	4,212,357
State Special Use Areas.....	45	150,796	59	154,687	84	353,606	78	331,855	72	251,050	1,241,994
State Historical Parks.....	6	358,500	6	499,000	6	454,000	5	494,000	6	424,000	2,229,500
State Wayside Areas.....	10	361,847	16	393,400	10	409,990	16	411,400	9	508,900	2,085,537
Other.....	12	133,950	10	192,030	11	403,225	12	265,960	10	273,340	1,268,505
Total.....	96	2,046,571	118	2,962,441	140	3,264,401	131	2,942,670	128	2,962,810	14,178,893

Development by Recreation Facilities											
Beaches.....	7	60,500	6	21,275	2	49,200	2	44,700	6	67,900	243,575
Public shooting areas.....	2	3,150	3	675	2	750	1	115	2	5,120	9,810
Swimming pools.....			1	150,000					1	200,000	350,000
Cabins, lodges, etc.....			1	38,000	1	176,000	1	192,000			406,000
Boat ramps and docks.....	11	23,910	9	12,615	11	36,170	10	33,340	17	151,995	258,030
Playfields.....	8	4,200	13	8,385	3	6,000	19	21,200	17	16,700	56,485
Picnic areas.....	33	61,903	32	51,842	32	86,576	38	121,313	48	93,895	415,529
Campgrounds.....	5	255,600	4	230,280	8	342,500	5	104,400	6	441,500	1,374,280
Trails.....	4	24,300			1	1,500	2	5,800			31,500
Miscellaneous at historical sites.....	6	197,700	6	174,000	7	577,000	6	607,500	6	291,000	1,847,200
Roads and parking lots.....	43	318,081	50	331,447	65	506,320	53	516,064	54	335,790	2,007,702
Buildings and structures.....	21	340,370	25	840,800	26	498,450	14	418,550	16	394,550	2,492,720
Utilities.....	23	181,838	32	387,600	31	140,465	34	241,425	34	225,890	1,177,218
Management development.....	28	191,860	29	302,220	21	482,550	31	291,273	24	309,790	1,577,693
Fencing.....	27	44,072	30	31,090	44	41,320	53	49,945	35	42,805	209,232
Toilets.....	26	267,992	27	292,167	28	249,250	29	211,230	40	234,815	1,255,454
Miscellaneous signs, etc.....	21	40,720	19	38,490	12	30,505	26	33,370	23	104,530	247,615
Trees and grass planting.....	35	29,925	45	48,545	40	38,225	54	48,265	34	24,030	188,990
Other landscaping.....	2	450	2	3,010	2	1,620	4	2,180	7	22,500	29,760
Total.....		2,046,571		2,962,441		3,264,401		2,942,670		2,962,810	14,178,893

Residents and visitors alike will benefit from the water-oriented recreational facilities designated for the "Chain of Lakes" areas adjacent to Interstate Highway 80





Recreation development portion of proposed five-year capital improvement program
by federal, state, and local agencies by socio-economic areas.

Socio-Economic Area	Federal	State	Local	Total
South Sioux City.....	\$ 785,000	\$ 768,500	\$ 317,000	\$ 1,870,500
Omaha.....	320,000	2,124,155	9,360,175	11,804,330
Lincoln.....	160,000	1,896,476	5,253,895	7,310,371
Beatrice.....	40,000	1,367,341	1,141,320	2,548,661
Norfolk.....	0	457,000	423,200	880,200
Columbus.....	0	212,800	396,550	609,350
Grand Island.....	0	805,140	973,950	1,779,090
Hastings.....	980,000	532,000	164,750	1,676,750
Kearney.....	0	763,905	890,000	1,653,905
McCook.....	0	909,172	506,640	1,415,812
North Platte.....	0	1,607,912	1,518,100	3,126,012
Ogallala.....	0	779,380	232,000	1,011,380
Valentine.....	1,788,000	583,112	301,000	2,672,112
Scottsbluff.....	2,146,500	1,722,952	1,130,950	5,000,402
TOTAL.....	\$ 5,239,500	\$14,178,893	\$22,732,110	\$42,150,503

oriented to extensive outdoor recreation activities such as hunting and fishing. Much of the total estimated development cost for the state program is allocated to substantially improving or developing supporting facilities such as roads, service and maintenance buildings, fencing, latrines, and fish and wildlife management developments.

Local programs for capital improvements were developed from five-year capital improvement programs submitted by political subdivisions, known applications for assistance under the Open Space, Land and Water Conservation Fund, or Small Watersheds programs and reasonable interpretation of additional needs that logically could and should be met during the planning period. This program should be viewed as highly flexible since it is entirely dependent upon financial capabilities of individual communities during any given year. Modifications of the schedule, however, should be in relation to satisfying identified needs.

PLANNED FEDERAL WATER RESOURCES DEVELOPMENTS

Many future outdoor recreation developments in Nebraska are tied to new water resource development projects sponsored by the U.S. Army Corps of Engineers, Bureau of Reclamation, and the Small Watershed Program of the Soil Conservation Service. Since funding of these projects is extremely difficult to predict, new water resource development projects have not been included in the acquisition or development summaries for federal, state, or local agencies. Since separable recreation and fish and wildlife costs are not known on all of the proposed water developments, cost estimates have not been included for any of these projects. Development of these proposed reservoirs would have a substantial impact upon Nebraska's outdoor recreation program. Over 170,000 surface acres of water would become available for outdoor recreationists if all of these projects were completed. This would more than double the present supply of 106,089 surface acres of major reservoirs now available for outdoor recreation.

SOURCES OF FINANCING

Adequate financing will be the key to the action program. It is a relatively ambitious program compared to the past history of acquisition and development of outdoor recreation areas here. All potential financial resources, including several federal grant-in-aid programs, must be brought to bear if adequate funding is to be realized.

The degree to which estimated funds are realized will depend upon future appropriations by all levels of government involved.

Relation of Action Program to Needs

Outdoor recreation needs have been detailed. Primary needs and related action proposals are summarized below:

1. Needs for urban outdoor recreation lands and facilities were evidenced in every socio-

Summary of proposed water resource development projects in Nebraska.

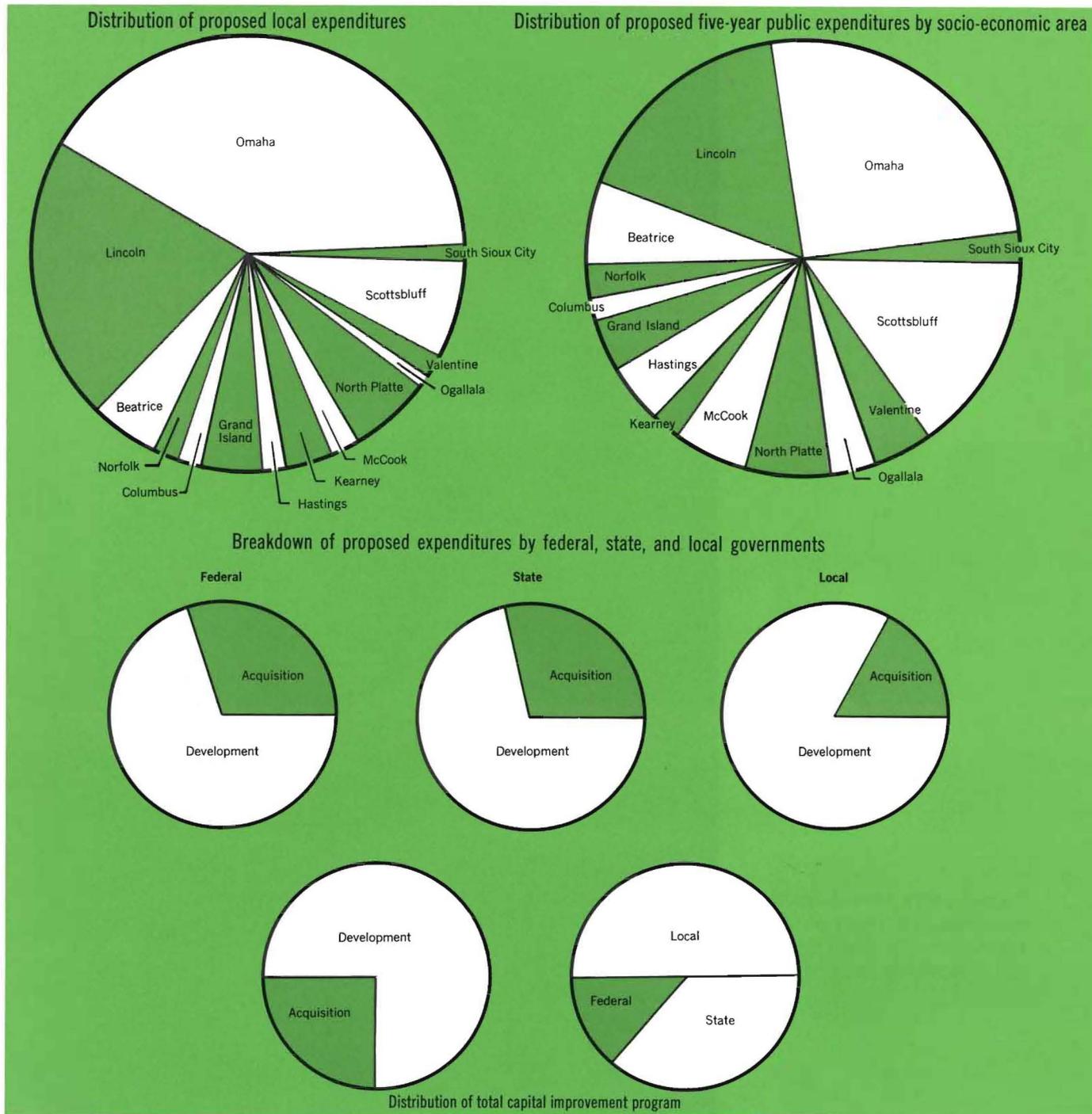
Watershed Developments Bureau of Reclamation	Surface Acres of Water
Pender	7,750
*Beaver Crossing	7,813
Surprise	4,100
Seward View	4,500
Shestak	4,300
Monterey	7,300
St. Clair	9,600
*Spalding	3,570
*Davis Creek	2,700
*Angus	5,080
*Mid-State (23 sites)	24,000
*Calamus	4,650
*Norden	6,300
Sub-total	91,663
U. S. Army Corps of Engineers	
Papillion (21 sites)	4,434
Lower Platte	64,000
Skull Creek	450
Sub-total	68,884
Soil Conservation Service	
P.L. 566 Watershed	
Structures (438 sites)	12,211
TOTAL	172,758

economic area. It is apparent that all existing urban recreation needs for each municipality cannot be met within the next five-year period. However, a significant proportion, can be satisfied. Planned developments in Nebraska towns and cities will also help increase the capacity of existing recreation lands to serve the needs of the urban population.

2. Nonurban outdoor recreation land needs are greatest in the eastern part of the state near the metropolitan areas of Omaha and Lincoln. However, unmet needs for high intensity use areas are present in each socio-economic area. Planned purchase of Class I and II lands during the next 5 years will alleviate over 42 percent of the anticipated needs in this category by 1972. However, the bulk of the need for high intensity outdoor recreation use areas will have to be satisfied by completion of water resource development projects which are presently in various stages of planning. For example, completion of the Papillion Watershed would add eight major reservoirs with over 3,500 acres of Class I lands to the Omaha SEA inventory.

Class III land acquisitions outlined in the five-year capital improvement program will meet the nonurban outdoor recreation land needs for 1972 in all the socio-economic areas except the Omaha and Columbus SEAs. Development of the proposed Lower Platte Reservoir would provide approximately 64,000 surface acres of water and up to 50,000 acres of land for outdoor recreation use. It would adequately satisfy projected 1972 nonurban land needs for the Omaha socio-economic area. Completion of the proposed Skull Creek Reservoir, development of a proposed major state recreation area, and inclusion of the Platte River Islands into a national recreation area would satisfy the outdoor recreation land needs in the Columbus socio-economic area.

3. All outdoor recreation needs cannot be satisfied simply by providing recreation opportunities near population centers. Many recreation experiences can be enjoyed only through full utilization of natural resources where they occur. Thus, the action program also includes



Sunset years provide golden opportunity to enjoy outdoor recreation—if the facilities are reasonably near at hand



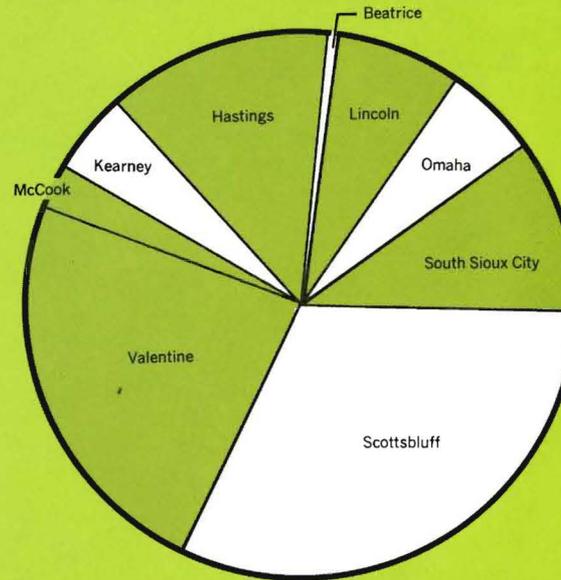
purchase and development of fish and wildlife, natural, scenic and historic sites in those areas where the resource potential is present. Provision of high quality outdoor recreation experiences, preservation of natural, scenic and historic sites, and enhancement of Nebraska's environment is guided as much by location of the resources as by proximity to population centers.

4. Development of road ranches and day-use areas in the Platte Valley Parkway along Interstate 80 will provide for the outdoor recreation needs of a majority of travelers through Nebraska. Acquisition and development of 24 other wayside areas throughout the state during this period will serve a substantial portion of the unmet short-term outdoor recreation needs of transients.

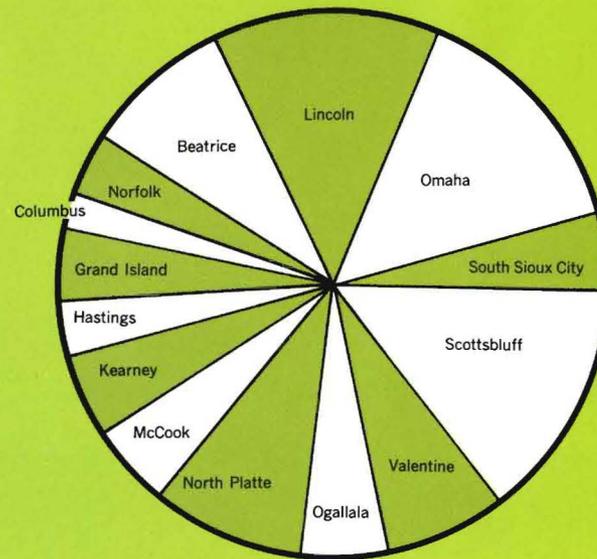
SPECIAL PROBLEMS

Nebraska has been fortunate during the past several years in having an aroused public and farsighted legislature who have recognized the need for and supported an aggressive outdoor recreation program. Basic legislation has been developed which permits an active and realistic program in virtually all fields of outdoor recreation. Financing, the most essential prerequisite of a sound program, has been strengthened significantly during recent years. State authority for management of virtually all fields of outdoor recreation has been centralized in one agency, the Nebraska Game and Parks Commission. Thus, the problems of co-ordination involving various recreational uses and interests are greatly simplified.

Special problems which may prevent or delay implementation of an adequate program for acquisition and development of outdoor recreation areas revolve about three basic issues: (1) problems directly or indirectly related to acquisition of recreation lands by the Nebraska Game and Parks Commission; (2) financing, and (3) lack of adequate organization at the local level, particularly counties, to carry out a comprehensive and dynamic program.



Distribution of proposed federal expenditures



Distribution of proposed state expenditures

Summary

A balanced program of acquisition and development of outdoor recreation lands and facilities combined with farsighted legislation, responsible public administration, and energetic promotion of private outdoor recreation programs can do much to alleviate the recreation deficiencies in Nebraska and help to establish a high quality environment in the state.

This, then, is the situation in Nebraska and what can be done about it. But, a plan is only a plan until it is implemented. Funds are a key factor. The needs are known, but it takes funds to meet those needs. It also takes a willingness on the part of all levels of government and a concerned citizenry to tackle the job ahead. Only with a united effort can the growing demands for all forms of outdoor recreation be met.



Water plays a vitally-important role in outdoor recreation. Many future projects, tied to developments planned by a trio of federal agencies, would create double the present acreage of major reservoirs

