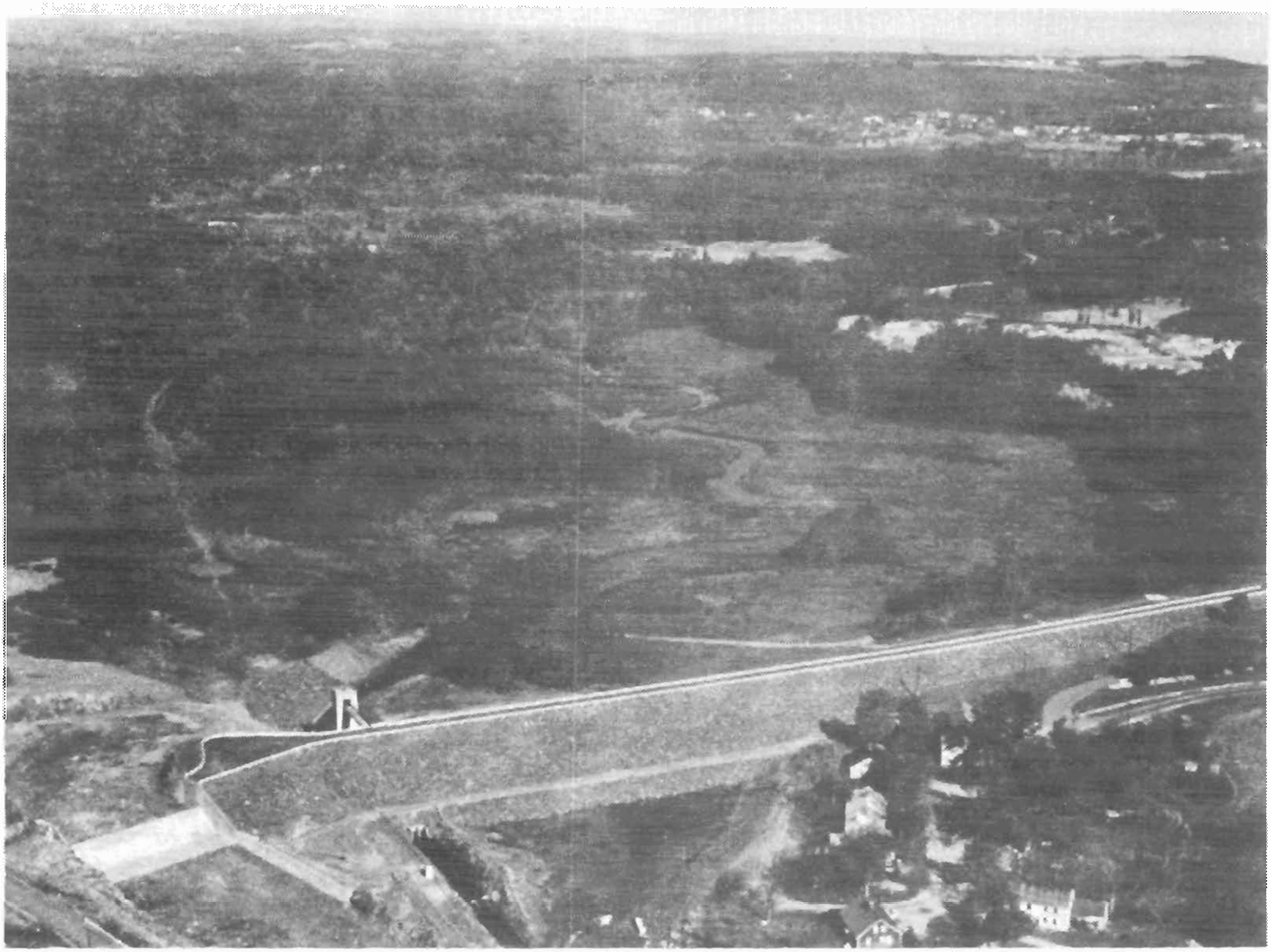
HODGES VILLAGE DAM OXFORD, MASS.

MASTER PLAN
FOR RECREATION RESOURCES DEVELOPMENT



DESIGN MEMORANDUM

MARCH 1976

DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION
CORPS OF ENGINEERS
WALTHAM, MASSACHUSETTS

HODGES VILLAGE DAM AND RESERVOIR

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PREFACE

We live in an age where expansion into untouched areas and mobility of vast amounts of people are taking place with ease and with little thought, except for the need to earn a salary or leave the congestion if only for a short time. Our recreational facilities have accommodated people, most of whom use them wisely. There are people, however, who, because of thoughtlessness, carelessness, or spite, will not heed the cautions of their peers.

Wallace Stegner, environmentalist, has written:

> Something will have gone out of us as people if we ever let the remaining wilderness be destroyed; if we permit the last virgin forests to be turned into comic books and plastic cigarette cases; if we drive the few remaining members of the wild species into zoos or to extinction; if we pollute the last clean air and dirty the last clean streams and push our paved roads through the last of the silence, so that never again will Americans be free in their own country from the noise, the exhausts, the stinks of human and automotive waste, and so that never again can we have the chance to see ourselves single, separate, vertical, and individual in the world, part of the environment of trees and rocks and soil, brother to the other animals, part of the natural world and competent to belong to it.

SUMMARY

The Hodges Village Dam and Reservoir is a multi-purpose facility constructed by the U.S. Army Corps of Engineers, New England Division, for the purposes of flood control, recreation, and wildlife enchancement. The Commonwealth of Massachusetts leases all of the Stumpy Pond and Conlin Hill areas and parts of the Greenbriar and Rocky Hill areas for land and wildlife management. The Town of Oxford leases the remaining portions of the Greenbriar and Rocky Hill areas for recreational purposes.

The Hodges Village Reservoir, now partially developed for recreation and wildlife management, can be more fully developed to provide a more desirable and useful recreational area. Coordination and cooperation between governmental agencies is mandatory.

Phase I development planning at Hodges Village consists of the construction of fireplaces at Rocky Hill, an amphitheatre, toilet facilities, and a tennis court capable of being used as an ice skating rink at Greenbriar. Directional and informational signs are planned throughout the reservoir. Maintenance items include regrading specific roads, selectively thinning trees, and installing trash receptacles.

Phase II construction at Rocky Hill consists of installing bleachers and a water bubbler at the ballfield. At Greenbriar,

a new ballfield, a new picnic area, a new parking area, and a new water bubbler are planned. Maintenance improvements will consist of grading specific areas and selectively thinning trees.

Phase III construction at Rocky Hill will be a function of available funds. At Greenbriar, a paved walkway to the amphitheatre, pedestrian lights, and tennis court flood lights are planned.

At Conlin Hill, Stumpy Pond, and Hodges Village, Phase I development plans generally consist of regrading roads, installing signs, and the construction of new cross-drainage. Future improvements planned consist of installing picnic tables, benches, trash receptacles, and fencing.

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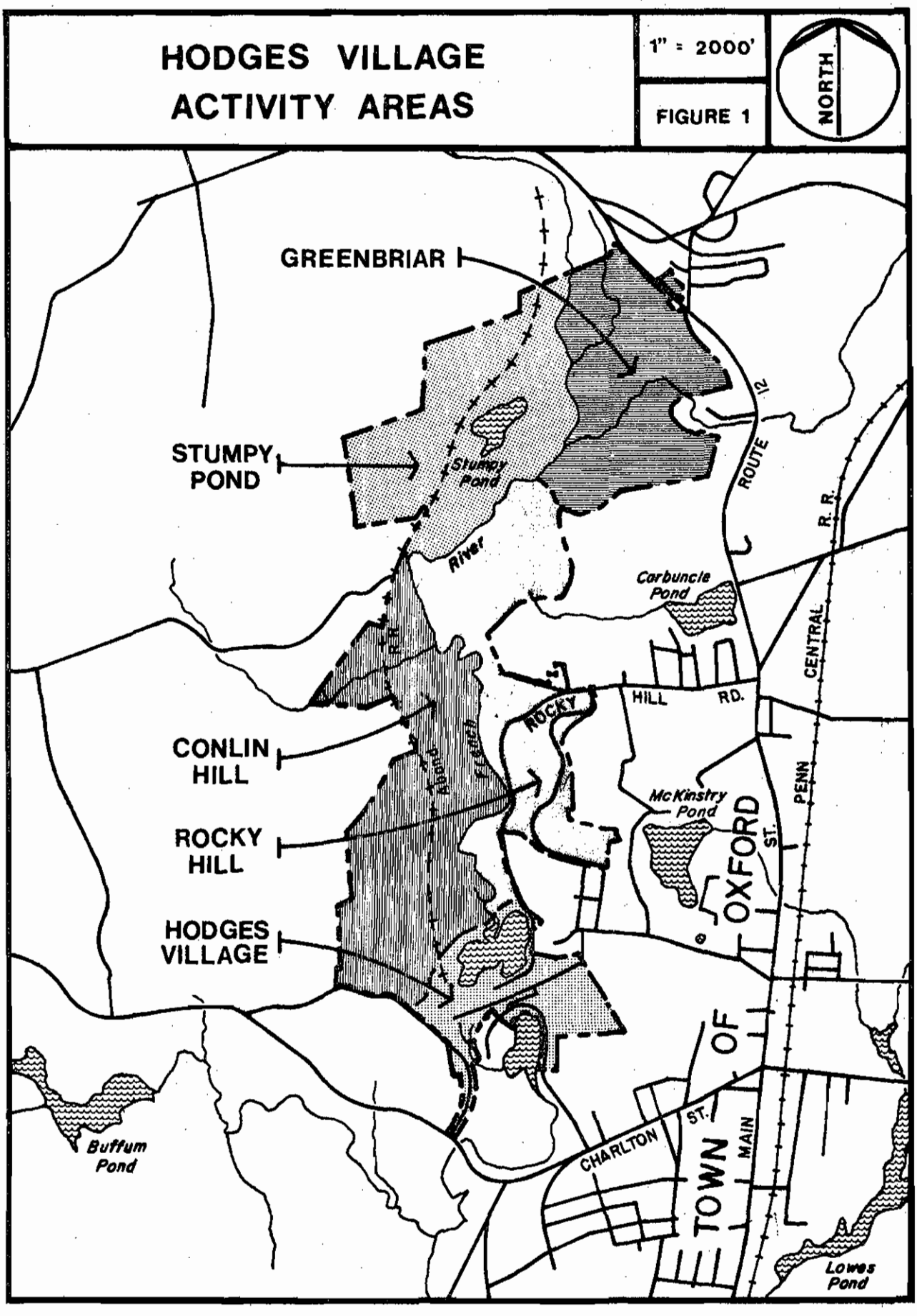

HODGES VILLAGE
ACTIVITY AREAS
1" = 2000'
FIGURE 1
NORTH
GREENBRIAR
STUMPY POND
CONLIN HILL
ROCKY HILL
HODGES VILLAGE
Stumpy Pond
River
Carbuncle Pond
McKinstry Pond
Buffum Pond
Lowes Pond
ROUTE 12
R.R.
CENTRAL
PENN
ROCKY
HILL
RD.
ST.
OXFORD
TOWN OF
CHARLTON
MAIN
ST.

I. INTRODUCTION

1. Project Authorization

The Hodges Village Dam was authorized by Public Law 77-228, as part of the Thames River Basin flood control system consisting of six Corps operated reservoirs and one local protection project. The development and use of reservoirs for recreation and water conservation purposes was authorized by Public Law 78-534, as amended.

2. Project Purpose

The Hodges Village Dam was completed in October, 1959, at a cost of $4,425,000 in response to the national program to develop and improve existing natural water resources in the interest of flood control, water conservation, and recreational development.

The operation of Hodges Village Dam provides flood protection primarily to Webster, Massachusetts, and to small towns downstream along the French River to Putnam, Connecticut. Optimum flood control protection is realized by close coordination between the Hodges Village and Buffumville Dams. The project offers recreational opportunities compatible with the primary function of flood control. It is estimated that a cumulative amount of over $2,862,000 in flood damages have been prevented by the Hodges Village and Buffumville Dams.

3. Purpose of Master Plan

The Hodges Village Master Plan provides a comprehensive and coordinated guideline for development, management, and use of

recreational resources of lands and waters owned in fee by the United States Government and within the flowage easement as determined by topography.

These recreation uses must be commensurable with the authorized project purpose and planned to achieve the maximum public benefits from the use of the project resources. The Master Plan is intended to be sufficiently flexible to allow for changes in public attitudes, interests, and demands and the changing urbanization and environmental modifications to the original project design.

4. Prior Pertinent Design Memoranda

Number		Date Issued	Date Approved
1	Spillway Design Flood and General Hydrology	12 June 1956	6 July 1956
2	Relocations	16 November 1956	26 December 1956
3	General Design	15 June 1956	30 July 1956
3	(Supplement No. 1) Detailed Design	February 1957	
4	Part I Real Estate	4 September 1956	1 November 1956
4	Part II Real Estate	2 February 1957	15 March 1957
5	Geology and Soils	February 1957	
6	Reservoir Management	CANCELLED	
7	Concrete Aggregates	5 April 1957	

5. Application of Public Laws

a. Public Law 78-534, as amended, authorizes the Secretary of War (now Secretary of Defense) to construct, maintain, and operate public park and recreational facilities in reservoir areas and to grant such leases on land or facilities to non-federal bodies as is reasonable and consistent with the major purpose of the dam and reservoir.

b. Public Law 85-624 directs federal agencies to co-ordinate the use of impounded bodies of water with the U.S. Fish and Wildlife Service and directs state wildlife resource agencies to determine the extent of damage caused to wildlife. It also charges governmental bodies to promote the development and improvement of such resources by the preparation of wildlife resource plans and reports, to provide assistance in the development, protection, rearing, and stocking of all species of wildlife, to assist in controlling losses from disease, and to minimize damages from overabundance by providing public hunting and fishing areas, including easements over public lands thereto. It further authorizes the modification of, or addition to, projects not completed by March 10, 1934, the date of the Fish and Wildlife Coordination Act, in order to acquire lands to accommodate the means and measures for the conservation of wildlife resources as integral parts of the project.

c. Under Public Law 89-72, where a project has been completed as of July 9, 1965, and non-federal bodies agree to administer project land and water areas for recreation, fish, and wildlife enhancement purposes and to bear the cost of operation, maintenance, and replacement of existing facilities serving those purposes, such facilities and appropriate project lands may be leased to non-federal public bodies. The law specifically states that it is not to be construed as preventing or discouraging post-authorization development by non-federal public bodies so long as agreement is made with the head of the federal agency having jurisdiction over the project.

d. Public Law 89-90 authorizes the establishment of the National Water Resources Commission which has the authority to set forth planning standards and water quality criteria and to maintain a continuing study of regional or river basin plans and programs in relation to national water resource requirements.

6. Scope of Master Plan

The scope of the Master Plan includes an evaluation of the existing uses of the project lands and waters for public recreational purposes and their relationship to other recreational opportunities available in the surrounding areas. The Plan recommends improvements to the project lands and waters based upon anticipated additional recreational demands.

II. PROJECT DESCRIPTION

1. Location

Hodges Village Dam is located in the south-central Massachusetts Town of Oxford along the French River in the upper Thames River Basin. This basin begins with the Thames River tidal estuary in New London, Connecticut, and extends northward through the eastern third of Connecticut. At Norwich, the river divides into two smaller rivers, the Quinebaug and the Yantic. The Quinebaug sub-basin drains over 50 percent of the Thames basin and covers predominantly its eastern half. Part of this sub-basin, formed by the French River and the upper Quinebaug, extends into the southeastern corner of Hampden County and the southwestern corner of Worcester County, Massachusetts.

Hodges Village Dam is on the French River 15 miles above its confluence with the Quinebaug, 0.9 miles west-northwest of the center of Oxford and about 5 miles north of the center of Webster, Massachusetts. The entire flood encroachment area above the dam is in the Town of Oxford.

Interstate Route 90 (Massachusetts Turnpike) interchanges in the town of Auburn with Interstate Route 290, which connects to U.S. Route 20 and serves the northerly part of the Town of Oxford. State Routes 12 and 56 provide direct access to the project site.

2. Project Data

a. Basin Hydrologic and Climate Survey

The Hodges Village Dam and Reservoir area has a variable climate characterized by frequent, but short, periods of heavy precipitation. The average annual precipitation is approximately 45 inches. This is about 2 inches less than in Webster, Massachusetts, about 5 miles south of the dam and about 11 inches less than in Worcester, Massachusetts, about 10 miles northeast of the dam. It is, however, twice the precipitation recorded at Putnam, Connecticut, about 14 miles south.

Storms over the watershed are of four general types:

1. extratropical continental storms which move across the basin under the influence of the prevailing westerly winds
2. extratropical maritime storms which originate over the ocean and move northward along the eastern coast of the United States
3. storms of tropical origin, sometimes of hurricane magnitude and intensity, and
4. thunderstorms produced by local convective action or by more general frontal movements.

Historically, tropical storms have been the most severe and have occurred during late summer and early autumn.

The average annual temperature is about 48°F. The southern part of the watershed has a generally milder climate than the northern part due to the moderating influence of Long Island Sound. The average monthly temperatures range from about 70°F in July and August to 24°F in January and February. Extremes of above 100°F and below -10°F have been recorded.

b. Reservoir Length, Shoreline, and General Character

If filled to the spillway crest elevation of 501 feet msl (mean sea level), the reservoir's water surface would cover 740 acres with a maximum depth of 36 feet and extend upstream 3 miles along the French River. The reservoir would have a flood storage capacity of 13,250 acre-feet, equivalent to 8.0 inches of runoff from a 31.1 square mile drainage area.

The drainage area above the dam area includes more than 25 storage reservoirs, ponds, and millponds.

c. Project Structures (Operational)

The dam consists of an earth and rockfill embankment with a concrete ogee spillway section. The rolled fill earth embankment section of the dam is 2,050 feet in length with a maximum height of 55 feet. The top of the dam is at elevation 520 feet msl where a paved access road has been constructed.

The 125-foot long concrete ogee spillway situated at the west end of the dam has a crest elevation of 501.0 feet msl.

The outlet works consist of two 5 feet x 6 feet rectangular conduits having inverts at elevation 465.5 feet msl. Flow in each conduit is controlled by an independently operated slide gate. The approach channel is excavated in rock and has a bottom width of 10 feet.

Included in the project are four earth dikes which are necessary for closing saddles in the reservoir perimeter. The dikes have a total length of 2,600 feet and a maximum elevation of 520.0 feet msl.

3. Reservoir Operation

The Hodges Village and the Buffumville Dams operate together and are governed by conditions in both the Little and French Rivers. Information on river conditions is received through a reporting network established in cooperation with the National Weather Service, the U.S.G.S. (United States Geological Survey), and local authorities. Because of rapid runoff in the basin, the emphasis is on the river stage recording stations, especially at damage centers downstream. During nonflood periods, reports are received weekly. During storms, reports are received every 24 hours or, during severe storms, as often as every 3 hours.

a. Normal Operation

During normal conditions, both gates remain halfway open. No low flow regulations are conducted at the Hodges

Village Dam since there are no water users in Webster or between Webster and the dam that require a specified minimum flow.

The summer outflow at Hodges Village ranges from 14 to 46 cfs (cubic feet per second) during periods without severe rainstorms.

b. Minor Flood Control Operations

No regulation of the Hodges Village gates is required during minor floods provided that the downstream safe capacity of the French River is not exceeded. That safe capacity is approximately 500 cfs just downstream of the Hodges Village Dam. However, the overall governing capacity is the discharge of the French River at the primary control point downstream from the dam at Webster. This should not exceed 1,000 cfs.

c. Major Flood Control Operations

Regulation of large floods is conducted in three phases:

Phase I - Appraisal of Storm and Initial Regulation of Flow - Whenever the projected rainfall in a storm forecast is 2 inches or more, regulation at the dam begins immediately. Gate No. 1 is closed entirely, and the opening in Gate No. 2 is reduced to 0.1 foot. The same procedure is followed, regardless of weather conditions, if the Hodges Village reservoir pool stage is 5 feet or higher.

The U.S.G.S. stream gauging station in Webster (primary control point) also serves as an indicator for regulation. When the water level reaches 6.5 feet on the gauge, the dam outlets at the Hodges Village Dam are closed as described above, whether a storm is forecast or not. The Reservoir Control Center maintains close contact with the dams and is kept aware of conditions.

Phase II - Regulation During the Flood - During this phase, the outflow from the dam is regulated as described above until the gauge at Webster, which is periodically checked, indicates that the flood peak has passed. At the same time, hydrologic and hydraulic data are collected at regular intervals from project managers, local observers, and weather stations in the basin. The project manager at Hodges Village checks a gauging station a short distance downstream from the dam in addition to the Telemark gauging station at Webster.

Phase III - Emptying the Reservoir - After a storm has abated and the river stage at Webster is falling, emptying of the reservoir may begin. The Hodges Village project manager proportions releases to recover full flood storage capacity as rapidly as is possible, making certain that the safe channel capacity of 1,000 cfs at Webster is not exceeded.

4. Visitation

The resources of Hodges Village Reservoir provide various day use areas for the Oxford-Charlton area. Over the past ten

years, visitation has steadily increased from 12,000 people per year in 1965 to 63,000 in 1975. People come to Hodges Village Reservoir year-round to participate in such leisure activities as ball playing, camping, fishing, hunting, motorcycling, picnicking, sightseeing, snow mobiling, and various equestrian activities. Data collected by the Corps of Engineers personnel, including volume of attendance for the various activities, is illustrated in Exhibit A. The data indicates a trend upward toward more active recreation. Attendance figures vary in response to several factors, including weather and water conditions and active use of the flood control facility.

With the ever increasing public demand for outdoor recreational activities, any area that retains its natural qualities while providing the resources for a variety of recreational uses can be expected to be in constant demand. Being located in close proximity to growing populations makes the area all the more attractive to the local community, especially in times of increasing cost of transportation. Hodges Village Reservoir can be expected to receive increasing use from members of the local community.

III. OPERATING PROJECTS - STATUS

1. Project Development and Operation Chronology

Construction of Hodges Village Dam was initiated in March, 1958, and completed in December, 1959. The total original cost of the project was $4,425,000.

Remedial work to the downstream slope of the dam was performed in the summer of 1968. This included rockfill, subdrains, and road construction. The cost of the remedial work was $42,075.

2. State Government

On November 1, 1962, the Commonwealth of Massachusetts, Department of Fisheries, Wildlife and Recreational Vehicles, Division of Fisheries and Wildlife, (formerly the Department of Natural Resources, Division of Fisheries and Game), received a 25-year license to maintain and manage 676 acres of the reservoir for fish and wildlife purposes.

All management activities are carried out under the supervision of the central wildlife district manager.

No revenues are derived by the Division of Fisheries and Wildlife in operation of the Hodges Village Reservoir.

Approximately $2,500 is allocated annually for stocking and maintenance pruposes.

3. Local Government

On December 1, 1963, the Town of Oxford assumed responsibility for the operation, maintenance, and management of two sites having a combined area of 109 acres. It obtained a 25-year lease for park and recreation purposes at the Greenbriar and Rocky Hill areas which are discussed in Sections VI., VIII., and IX.

Management activities are carried out under the supervision of the Town of Oxford Recreation Commission. There are no entrance or user revenues derived by the Town. Annual expenditures allocated average approximately $2,500 per year without capitol improvements.

4. Private Investment

In January, 1968, the Massachusetts Electric Company received a utility easement from the Corps (on the former Boston and Albany railroad right of way) for electric power and communication facilities transmission purposes.

Private recreational expenditures at Hodges Village Reservoir have consisted of the establishment and marking of snowmobile trails by the Oxford Snowdusters Snowmobile Club.

IV. CONSTRUCTION PROJECTS

No project developments other than routine maintenance are underway and none other than those proposed in this Master Plan are scheduled for the immediate future.

V. RECREATIONAL AND ENVIRONMENTAL RESOURCES OF THE PROJECT AREA

1. Geologic

The bedrock underlying the reservoir is chiefly granite rock and phyllite. North of the dam, the French River flows through a valley with a narrow flood plain. Ravines separate flat areas and have small ponds and wetlands. In and below the

reservoir area the valley widens. This area is overlain with ice-contact stratified drift and alluvium. These coarse-grained materials are good sources of gravel and were actively mined in two pit locations within the project area and continue to be mined on lands immediately adjacent to the project area.

The soil in the parts of the French River valley underlain by ice-contact stratified drift is well-drained but nutrient deficient. The alluvium is well-drained, except in the swamp deposits and small wetlands scattered throughout the region.

2. Archaeologic

There are no known archaeological features located within the reservoir or in close enough proximity to the site to affect its popularity or use.

3. Historical

A potential historical asset is the circa 1838 Hodges Village that abuts the embankment east of the spillway. Other assets are the former Old Howarth Road along the east bank of the French River and the former Old Charlton Road crossing through the center of the reservoir east to west.

4. Ecologic Resources

The native ecosystems of the area were not significantly affected by the construction of the dam since no permanent pool was established. Any rise in the water table associated with

the construction of the dam has been insignificant. The most noticeable change since completion of the dam has been damage to trees in the marsh near the north end of the reservoir due to permanent flooding.

The periodic upstream inundation caused by flood control operations has not caused significant changes to existing ecosystems due to the nature of the vegetation and soil and to the duration of flooding. About half of the retention area is swamp or marsh, and the vegetation in these areas is extremely tolerant to inundation. These wetlands are the lowest areas in the reservoir and, therefore, are subject to the most frequent and prolonged inundation.

The type of vegetation on higher ground is more susceptible to flood damage; however, few trees have been killed by flooding. The higher areas, though subject to inundation, are flooded less frequently and for shorter durations than the low lying areas, and the soils in these areas of the reservoir are coarse which allows them to drain quickly.

Oxygen starvation of plant roots is the major cause of tree mortality. Since the longest durations of high water occur in late winter or early spring, most trees are able to survive in the reservoir area because they are still in their winter dormancy.

Impounded flood waters are released as soon as river flood levels begin to recede. Thus, flood waters are impounded for the shortest possible time with the least possible damage to vegetation.

The diverse types of vegetation in the reservoir area comprise a number of various habitat forms that support a diverse array of associated wildlife species. To date, the Hodges Village Dam has had no major detrimental effects on wildlife. Spring and early summer flooding have a somewhat critical effect on local fauna. This is the breeding and young-tending season and, therefore, is the time that animals are most susceptible to unnatural changes in their environment. For example, an unnatural change in water level could affect the breeding success of the marsh and swamp ecosystems. The resultant decline in emerging insect population could have an adverse effect on insectivorous bird species. A more obvious danger is that very young animals may be unable to escape rising flood waters.

The silt which settles in the reservoir after flood storage operations is critically harmful to fish populations during spawning time. If egg masses are covered with a silt layer, the rate of survival among fingerlings can be expected to be impaired. Thus, a strand in the food web is affected and aquatic productivity is decreased.

The French River and its associated ponds are classified as warm water fisheries. Fish species such as perch, bass, and pickerel are native to this area.

No specified vector or insect problem or diseases exist in the area which are not common to a northern hardwood forest.

5. Environment and Scenic Qualities

a. Topography

The terrain surrounding the reservoir can be generally described as hilly with moderate relief. Elevations in the vicinity of the reservoir range from about 470 feet msl in the streambed at the base of Hodges Village Dam to about 840 feet msl on Taft Hill, south of Oxford, overlooking the Hodges Village Reservoir. North of the reservoir, the French River flows through a generally narrow valley flanked by high, steep-sided hills. Within and below the reservoir, the valley widens and is partially lined with terraces. When filled to capacity, the reservoir would inundate two ponds and large areas of marsh and swamp.

The French River is formed by the confluence of several small brooks in Leicester, Massachusetts. The River's watershed above the dam has an area of 31.1 square miles, with a total fall of 618 feet along its total length of 28 miles. Within the reservoir, the average gradient is about 8 feet per

mile. This grade is gentler than the river's average grade because of the swampy lowland nature of the reservoir.

b. Vegetation

The Hodges Village reservoir area supports a variety of plant communities. The upland woods are found on the small, often steep-sided, hills that have a well-drained sandy soil. These woods are comprised of mainly white pine, white, red, and scrub oak, with some gray, silver, and black birch, and quaking aspen. Large numbers of pitch pine grow on the driest sites. The upland woods have a closed canopy with small to medium sized trees indicating relatively recent regeneration from agriculture.

The wetlands are more varied in physical characteristics and in plant species composition. Red maples predominate in tree swamps and are accompanied by meadowsweet, black alder, speckled alder, and other shrubs. Stream banks are populated with black willow, red maple, gray birch, and redosier dogwood. Major species of the marsh vegetation are cattail and tussock sedge. Redosier dogwood predominates in the shrub swamp.

The meadows and shrubby meadows contain dry sandy soil. Vegetation consists mainly of little bluestem, asters, goldenrod, milkweed, meadowsweet, staghorn sumac, blackberries, sweetfern, small white pine, and quaking aspen. There are sufficient forms of vegetation indigenous to the area to develop a nature trail.

c. Land Uses

The determining factor for the selection of land uses in the Hodges Village reservoir area is the compatibility of those uses with the land's primary purpose as a floodwater retention basin. This criterion limits the intensity of use to which the land can be subjected.

The main use of the land presently is that of a minimally maintained natural area. Passive recreation activities presently occur throughout the site with two active recreation areas on the easterly side of the French River.

Gravel pit operations are being conducted at two locations abutting the Hodges Village Reservoir. These sites are discussed in Section VI., 9.

The Massachusetts Division of Fisheries and Wildlife currently stocks game birds and fish at Hodges Village and oversees hunting and fishing activities therein under the terms of a land management lease. There is no active forest management program or land leased for agricultural purposes at the reservoir area. The Corps does have a park ranger assigned to several projects in the Thames River Basin; however, forestry management is reviewed by the Corps of Engineers foresters.

d. Visual

The overall visual character of the reservoir area is mainly that of a second growth mixed hardwood forest of the type

typical to southern Massachusetts. The peak time of scenic quality for this area is during the fall foliage season.

The low rolling tree-covered hills and hollows provide a source of visual aesthetic appeal, but this type of landscape interferes with long vistas. The spillway overlook of the Hodges Village Dam is the only high point on the site that provides a clear view. From here, the view to the south is of Hodges Village and the lower pond. To the north, the view is of the shrub swamp and marsh area. The Greenbriar area provides a motoring vista on Route 12.

6. Recreation

a. General

Although the primary use of the reservoir area is for flood water retention, the Corps of Engineers' policy of managing land for multiple use has allowed several types of recreation to develop on the site. The entire reservoir, except for facilities associated with the direct operation of the dam, is open to the public free of charge. Due to the unlimited number of access points, it has been somewhat difficult to monitor all recreational activities. The most troublesome aspects of managing public land for recreation are preventing abuse and resolving conflicts in use.

b. Athletic Fields

The Town of Oxford leases two parcels of land from the Corps to maintain two recreational sites at the reservoir, one

at Greenbriar and the other at Rocky Hill. These are the only existing athletic facilities at the reservoir.

c. Picnic Areas

In addition to the two athletic fields, the Town of Oxford maintains a picnic area at the Rocky Hill site which is located on a tree-covered mound above the reservoir flood level. This recreation facility suffers from vandalism and littering, a condition aggravated by the dense growth obscuring the Rocky Hill recreation site from the roadway and surrounding areas.

The Corps operates a picnic area adjacent to the dam. This is a better maintained area due to its close proximity to the main Corps administration and maintenance buildings.

d. Hunting and Fishing

The Massachusetts Division of Fisheries and Wildlife has a 25-year lease for 676 acres which it manages for hunting, fishing, and other forms of recreation. The Division annually releases approximately 500 pheasants and 100-150 hare at the reservoir. The wildlife management area presently consists of all lands within the fee ownership of the United States, with the exceptions of the Town of Oxford's recreational areas and the dam, supporting buildings, and the picnic areas which are controlled and maintained by the Corps. The stocked species draw most of the hunters to the reservoir since the natural

wildlife population, except for waterfowl, does not provide much game.

Warm water fishing is available in the French River and the associated ponds within the project. (Stocked trout are the primary game fish in the upland streams and brooks above the project.)

e. Trails

The reservoir has approximately 9 miles of trails, old haul roads, former town roads, abandoned railroad beds, and utility easements which are used for hiking, hunting, and recreational vehicles, primarily snowmobiles. These roads and trails wind through the woodlands and skirt along the wetlands of the reservoir with no systematic arrangement. Two narrow bridges cross the French River to allow for the passage of pedestrians and small recreational vehicles.

f. Other

The Town of Oxford supervises other outdoor activities at the project such as flea markets and horse shows. These activities are conducted in a field at the Greenbriar recreation area.

VI. FACTORS INFLUENCING AND CONSTRAINING RESOURCE DEVELOPMENT AND MANAGEMENT

1. General

The 1,107-acre Hodges Village Reservoir area has the potential to provide numerous natural and developed recreational

opportunities for not only the Town of Oxford but also the surrounding communities, especially when considered in combination with the resources at Buffumville Dam.

The Thames River watershed is becoming a recreational backyard for the densely populated areas of central Connecticut and Massachusetts and western Rhode Island. The Town of Oxford will feel the pressures of urban development with the opening of State Route 52 and may experience an increase in the demands for recreational usage upon the reservoir as it changes from a rural to suburban community.

2. Demographic

The Town of Oxford remains largely rural, with a large proportion of land in woodland and agriculture. Two woolen mills are the Town's only manufacturing industries with 26 construction firms and 42 wholesale and retail establishments comprising 74 percent of the Town's businesses. The Town is encouraging the introduction of new industry by developing an industrial park.

During the decade 1960 to 1970, the population increased 11.5 percent from 9,282 to 10,345. The majority of the Town's inhabitants reside east of the Hodges Village Reservoir.

3. Topography and Geology

The steep cuts and hillsides containing the reservoir area limit the potential for recreational development. Extensive

wetlands and level areas immediately along the river are generally within the flood plain except on isolated knolls.

The local geology, as previously discussed, does not seriously influence or constrain development of the project area as it relates to either bedrock depth or to the location and design of leaching fields.

4. Accessibility

The site is accessible via Interstate Highway 90 (Massachusetts Turnpike) in Auburn which connects to U.S. Route 20 to serve State Routes 12, 21, and 52, all of which are east of the Hodges Village Dam. State Route 52 will, in the future, provide direct limited access from U.S. Route 20 to Oxford. State Route 12 (Main Street) serves local traffic and borders the site on the north and east. Direct access is provided from Main Street by Rocky Hill Road, Church Street, and Charlton Street. On the west, State Route 21 through Charlton serves Old Charlton Road, Charlton Road, Old Southbridge Road, and Dudley Road to provide local access to the site.

5. Area of Influence

Outdoor recreation areas in Massachusetts and the New England states have experienced increasing use in the past 25 years due primarily to rising metropolitan populations and increased mobility. An increased awareness of and desire to

relate to and understand nature and an increase of less-organized leisure activities have contributed to this rise. According to the U.S. Census Bureau data, the population within a one-hour drive of the site increased to well over 3,000,000 in 1970.

Close proximity to urban areas is an important feature due to the continually rising price of gasoline.

6. Related Recreational-Historical Areas

Numerous recreational areas and facilities are located near the site. These include Buffumville Lake State Reservation, Douglas State Forest, Spencer State Forest, and Wells State Park.

New England is rich in historical sites and events which form the foundation of our country. Locally, the Town of Oxford was the only new settlement in Worcester County during the late 17th century with the arrival of 30 French Huguenot families in 1689 along the northerly area of the French River in a section known as "Old Common." This was the Town's center until as late as 1873. The more historical sites within the Town are the Town Cemetery, Clara Barton's birthplace, the Johnson Massacre Site, the Indian Burial Grounds, and the historical churches.

Many other recreational areas exist throughout the Thames River Basin-Pioneer Valley region. Public demands for all forms of outdoor recreation are high and will rise in the future.

7. Reservoir Plan of Operation

A park system for high density public use would have a considerable impact on the course of future dam operations. The practice of stocking pheasant and hare by the Massachusetts Division of Fisheries and Wildlife, in addition to wildlife conservation and wildlife management, is compatible with the active recreation planned by the Town of Oxford at the Greenbriar and Rocky Hill recreational facilities.

8. Siting of Roads, Cemetery and Utility Relocation, and Facilities for Mineral Extraction

a. The roadway systems within the dam and reservoir area owned by the Corps or leased to either the Town of Oxford or the Commonwealth of Massachusetts provide broken circulation of vehicular movement, thus limiting access through most of the western half of the project.

b. The operation and maintenance of the North and St. Roche Cemeteries adjacent to the project will have no effect on recreational use of the area.

c. An abutting open gravel pit operation on private land detracts from the potential of the reservoir area as a true conservation area. Upon completion of the quarrying activity, large-scale reclamation and stabilization would be beneficial in addition to reforestation of the area.

9. Type, Location, and Extent of Earth Borrow

There have been two open-pit gravel mining operations adjacent to the reservoir area since the dam was constructed. The Town of Oxford owns and excavates land on the east side of the river just above the dam, with operations on private land with some land under flood easement. The Scavone Sand and Gravel Company owns 72 acres of land on the west side of the French River for part of which the Corps of Engineers has a flowage easement. The Corps has no jurisdiction over the operation of any of the gravel pits, however.

These mining operations do have unavoidable adverse effects on the reservoir area that create aesthetic, vegetative, erosion, and siltation problems, in addition to higher noise and dust pollution levels.

10. Water Quality

The Oxford Water Company, which supplies water to the Town of Oxford, operates a well field within the reservoir in the productive stratified drift. The gravel-packed wells yield a half million gallons of high-quality water per day. There is an additional potential yield of over one million gallons per day for the Town or other users. The aquifier which the Town taps is the largest along the French River in the vicinity of the reservoir and is, therefore, a valuable resource.

The Corps of Engineers tests the water quality of the French River surface water quality biweekly in the winter and weekly in the summer. The water quality of this section of the river is improving and meets the standards established by the Commonwealth of Massachusetts for major interstate waters for a Class B watercourse. Water of this class is suitable for bathing and recreational purposes. With appropriate treatment, it is acceptable as a public water supply. It is also excellent fish and wildlife habitat.

11. Adaptability of Spillway and Other Project Structures for Public Use

Facilities at the Hodges Village Dam include an administration and utility building, public rest rooms, a caretaker's building and garage, and a storage building. The administration building serves as an information center for the project complex. The spillway, outlet works, dikes, and the dam are not suitable for or capable of being used for any type of public use.

12. Anticipated Attendance

The most difficult aspects of managing public land for recreation are preventing abuse and resolving conflicts in use. At Hodges Village Reservoir, the facilities used most intensively are the Town of Oxford's Little League ballfield and picnic area at Rocky Hill and the playing fields at Greenbriar.

However, the entire reservoir, except for facilities associated with the operation of the dam, is open to the public free of charge and is used by hunters, fishermen, and by recreational vehicles. Thus, it has been somewhat difficult to monitor recreational activities. The only restriction to public access in the reservoir is the closing of low-lying roads when flooding is imminent.

Over 50,000 visitors come to Hodges Village project area every year. In general, the facilities do not appear overused. On a knoll north of the Administration Building above the reservoir, the picnic tables are located under large pine trees with no understory shrubbery. The reservoir trails and old haul roads which intertwine the reservoir are being used for various forms of recreational activity. Two pedestrian and recreational vehicle access bridges cross the French River, one at the Greenbriar recreation area and the other at Hodges Village Dam.

a. Hunting

The reservoir area has some good habitat in the wetlands and shrubbery meadows for the natural wildlife population, but does not provide much game for hunters. Most upland hunting is for stocked pheasant and hare.

b. Trail Bikes

Trail bike riding is popular because of the extensive trail system, of which several trails have been designated for

trail bikes. However, some riders have not kept to the trails, making use of the fields and the dikes where they are not allowed. This activity has the potential for destruction of vegetation and soil and for annoyance to wildlife and to pedestrain park users. Trail bikes and snowmobiles constitute a large percentage of the current users of the reservoir area, and use is expected to increase.

c. Picnicking

Two picnic sites with adequate parking have been established within the project area, one at the Hodges Village administration area and one at Rocky Hill. It is anticipated that picnicking visitation will continue to increase, particularly as facilities at Rocky Hill are improved as discussed elsewhere in this Master Plan.

d. Snowmobiling

The designation of snowmobile trails and cooperation of the Oxford Snowdusters Snowmobile Club has been significant in accommodating this very popular activity. It is expected that snowmobiling visitation will continue to increase.

e. Town Activities

Various seasonal town activities besides baseball and Little League will include tennis, ice skating, and open air theatre activities. Additional events include equestrian activities and an annual horse show.

13. Application of Public Law 89-72 and Cost Sharing Requirements

Under Public Law 89-72, Section 4, where a project has been completed as of July 9, 1965, and non-federal bodies agree to administer project land and water areas for recreation and fish and wildlife enhancement purposes and to bear the cost of operation, maintenance, and replacement of existing facilities serving those purposes, such facilities and appropriate project lands may be leased to non-federal public bodies. Presently, the Commonwealth of Massachusetts has a lease covering the major portion of the reservoir land which it uses for the stocking of fish and game and for wildlife habitat improvement and research.

Any future planning and development of recreation facilities based upon a four-season conservation and recreation area must be undertaken on a 50-50 cost-sharing basis between the Federal Government and a non-Federal interest such as the state or Town of Oxford.

14. Environmental and Ecological Features

Optimal wildlife habitat is located at Hodges Village Reservoir which is fed by the French River. Since the vegetation in the area is very diverse, the wildlife using the habitat is corresponsingly diverse. The differences in habitat will delineate various species and their uses of the local environment. For example, the marsh supports small mammals such as

muskrat, mole, and mice and birds such as small herons, rails, and wetland songbirds. The shallow waters along the French River at Hodges Village attract such surface feeders as black ducks, wood ducks, and mallards.

Pheasants and hare are released annually at the site. Hodges Village receives about 500 pheasants and 100 to 150 hare. A wildlife management area is located on the west side of the French River north of the Hodges Village Dam. It extends along the abandoned railroad bed to about 1,500 feet south of the intersection of the power line easement and the French River. Raccoon, cottontail rabbit, grouse, and perhaps some quail can be expected in this area.

Temporary wetlands are important to the life cycles and habits of many species of wildlife, waterfowl, and fish. They promote insect production and diversity of vegetation which, in turn, supply food for a variety of fish and birds. Modification of these areas adversely affects the entire food chain of wildlife species from aquatic invertebrates to spawning fish. The reduced available aquatic and wetland habitat at the dam leads to reduced numbers of aquatic and wetland animals.

Any unnatural change in water level could affect the breeding success of the marsh and swamp ecosystems. The absence of a permanent pool at Hodges Village is beneficial to wildlife

because it has allowed perpetuation of highly productive marshes and shrub swamps.

The effect of flood storage on the area is somewhat critical during the spring and early summer breeding. During May and June, marsh-nesting birds are rearing young and their energy expenditures are high. At this particular time, insectivorous birds are highly dependent on a steady insect population in marshes within the reservoir. Emerging aquatic insects are consumed by many birds as well as by mammals and reptiles.

VII. COORDINATION WITH OTHER AGENCIES

1. Federal Agencies

Federal agencies contacted have included the United States Department of Agriculture, Soil Conservation Service; Southern Worcester County Conservation District; Department of the Interior, Bureau of Outdoor Recreation.

2. State Agencies

The Commonwealth of Massachusetts' agencies contacted for input into the Master Plan include, within the Office of Environmental Affairs, the Department of Conservation Services; the Department of Fisheries, Wildlife and Recreational Vehicles, Division of Fisheries and Wildlife; the Department of Environmental Management, Division of Forests and Parks; the Department of Community Affairs; and the Department of Public Health.

Hodges Village Reservoir is leased in part to the Department of Fisheries, Wildlife and Recreation Vehicles, Division of Fisheries and Wildlife. Although few existing facilities were constructed by the Corps of Engineers, all future development will be carried out by the Division of Fisheries and Wildlife in conjunction with the Corps of Engineers on a cost-sharing basis.

Close coordination has been maintained with the Division of Fisheries and Wildlife to develop fish and wildlife stocking programs.

The existing leases to the Massachusetts Department of Fisheries, Wildlife and Recreational Vehicles, Division of Fisheries and Wildlife, should be phased out as early as practical and replaced with a license in order to plan and program public land use for development and retain these same lands for fish and wildlife purposes. Since the Division of Fisheries and Wildlife has a very limited budget, other non-federal agencies may have to be solicited to share in the development of the overall Hodges Village Reservoir area.

3. Regional

The Central Massachusetts Regional Planning Commission was contacted to coordinate regional Master Plans entitled, "Regional Open and Recreation Plan" and "Regional Study Development Plan (A Future Spatial Policy Guide)." In addition, population

trends, transportation, land use, and development trends and patterns were reviewed and coordinated with the Commission.

The Planning Commission study indicates growth patterns placing greater pressure along the northern and eastern borders of the reservoir.

4. Local

The Town of Oxford Preliminary Master Plan was consulted to assure coordination with present and future recreation and conservation policies. Close coordination has been maintained with town officials of the Recreation, Conservation, and Bi-centennial Commissions for local citizen participation. The Town of Oxford operates two recreational sites within the reservoir area.

5. Private Groups

The Oxford Snowdusters Snowmobile Club, in conjuction with the Corps, is mapping and maintaining trails throughout the area and supervises all snowmobilers who use these trails.

These regulations include staying on marked trails, destruction of trees, littering and harassment of other sportsmen and wildlife.

VIII. PHYSICAL PLAN OF DEVELOPMENT

1. Zoning of All Project Lands and Waters

All project lands within the Hodges Village Reservoir are available to the public for general recreational use with the

exception of a very small area retained by the Corps for operation and maintenance of the dam. Existing land use within the reservoir by the Corps, State, and Town has been devoted primarily to restricted types of recreational activities such as picnicking, hunting, snowmobiling, and organized sports.

The reservoir comprises 874 acres owned in fee and 264 acres of lesser interest zoned for the following land uses:

> 89 acres for project operation and maintenance, excluding normal pool is zoned Project Operations.
>
> 109 acres containing two parcels of land, namely, Rocky Hill and Greenbriar recreational areas, leased to the Town of Oxford for recreation purposes is zoned Operations: Recreation-Intensive Use.
>
> 676 acres licensed to the Commonwealth of Massachusetts, Office of Environmental Affairs, and the Department of Fisheries, Wildlife and Recreational Vehicles, Division of Fisheries and Wildlife, is zoned Operations: Recreation-Low Density Use.

a. Recreation Sites and Areas

The selection of areas for public use development has been determined through field reconnaissance, analysis of topographic plans, meetings, conferences, and consultation with federal and state agencies, the Central Massachusetts Regional Planning Commission, and the Town of Oxford. Geology, environmental habitat, accessibility by existing roads and trails, proximity to urban centers, existing and future use, and future urban development of the greater Worcester region have all received consideration.

Public recreational areas should maintain stride with the public's increased demands and needs for a variety of activities. An expansion of the recreational programs offered may be necessary to accomplish this. In general, persons inhabiting the region have specific four-season recreational desires which can be satisfied within the project area. The provision of facilities for a variety of recreational four-season interest should be considered to meet present and future public demands. In addition, all planned uses should be compatible with the authorized project purpose of flood control and individual recreational activities.

In planning for four-season day use, recreational facilities development should be compatible with the level of ability of the local environment to support intensive use. Development must not be planned to satisfy recreational demands which would be greater than the area could reasonably accommodate.

b. Fish and Wildlife Conservation and Management

The fish and wildlife conservation and management program is being handled under the direction of the Massachusetts Division of Fisheries and Wildlife at the Stumpy Pond, Conlin Hill, and part of the Rocky Hill areas of the reservoir. At present, some of the current use of the project is compatible with wildlife management while some is not. The Town-managed

facilities east of the French River occupy a small portion of the reservoir; but, with the exception of the well field, they are already under heavy human influence.

As the population of south-central Massachusetts grows, the Town of Oxford will gradually develop and place greater stress on wildlife preservation. The anticipated completion of State Route 52 will have a definite impact on accelerating the development of Oxford, particularly east of the French River. Eventually, wildlife species will face the choice of either adapting from a rural to a suburban habitat or vanishing from the locale.

c. Natural Ecological Areas

The areas leased to the state provide a natural wildlife habitat. The diversificiation of habitat is very attractive to many species of wildlife while most of the wetlands are not well suited for heavy recreational use. Therefore, all lands not used for picnicking, playing fields, and trails will continue to be set aside for conservation of wildlife habitat.

d. Historical Sites

Oxford is the birthplace of Clara Barton who founded the American Red Cross Society in 1881. Her home is located on Clara Barton Road, just north of the project. Its proximity offers an inducement to visitors to make use of the project facilities.

Hodges Village, immediately below the dam, has little historical significance today. Present historical interest is centered on the period 1770 to 1800. However, within 25 years, Hodges Village may become historically significant due to its isolated location and the documentation of village development since 1838 when the Norwich and Worcester Railroad was built. Hodges Village could become a good example of pre-Civil War architecture and town development.

e. Additional Land Requirements

The competing land requirements for outdoor recreation by the Town of Oxford and the Commonwealth of Massachusetts, due to expanding population pressures, place hardships on each. The Greenbriar and Rocky Hill sites should fulfill the Town's present needs. The Stumpy Pond and Conlin Hill areas should suit the needs of the Massachusetts Department of Fisheries, Wildlife and Recreational Vehicles, Division of Fisheries and Wildlife.

Major roads within the reservoir should form a complete circulation pattern by connecting the few gaps remaining in the existing roadways and trails. This should ensure a suburban park system for the future. Access should be limited to Greenbriar, Rocky Hill Road, Hodges Village Dam, Old Charlton Road, and the old railroad bed to Clara Barton Road. The remaining access points should be closed permanently. They are:

the gravel pit off Old Howarth Road on the west side of the site, the haul road from Route 12, and the access road from the high school.

2. Project Structures

No development has been proposed at the project operations dam site. Routine maintenance and flood control operations will continue. Potential for recreation development is restricted at the site due to safety considerations.

3. Recreation Sites and Areas

The reservoir is subdivided into five land use areas: Greenbriar, Rocky Hill, Hodges Village, Conlin Hill, and Stumpy Pond. Management responsibilities are roughly divided into two areas by the Town of Oxford, two by the Commonwealth of Massachusetts, and one by the Corps.

Interwoven throughout these areas are a combination of trails, haul roads, an old railroad right of way, roadways, and old streets that are being used as a trail system for snowmobiles and trail bikes.

a. Greenbriar

The Greenbriar recreational facility, on land leased to the Town of Oxford, is being developed for active sports. This facility expansion program is scheduled to contain two baseball fields, three tennis courts, picnic tables, an outdoor

amphitheatre, rest rooms, and parking areas. The Town has received a grant of $15,000 from the Massachusetts Bicentennial Commission to add to their funds of an identical sum slated for further development. The Corps will match the aforementioned $30,000 total and other additional sums designated for recreational development. Of specific importance to both residents and visitors is the well field and pumping station owned by the Oxford Water Company abutting the recreation area.

b. Rocky Hill

The Rocky Hill area is maintained by the Town for active and passive recreation and contains one baseball field and a picnic area. The area also contains an area for wildlife management maintained by the Massachusetts Department of Fisheries, Wildlife and Recreational Vehicles, Division of Fisheries and Wildlife.

At the present time, there are no future development plans by the Town for this facility. A vandalism problem has discouraged plans for enlarging the area, but upgrading and improvement of existing facilities should be included in the plans for immediate action.

c. Hodges Village

The dam site and its immediate vicinity are managed by the Corps for flood control purposes. Facilities include a

picnic area, Project Manager's office, and rest rooms. Since this area is the direct responsibility of the Corps, vandalism is minimal and the area is well maintained.

Upgrading and improvement of existing recreational facilities and development of a vehicle access road at the dam for project maintenance and rustic fencing are planned. This development will also improve public access to the reservoir.

d. Conlin Hill

Conlin Hill remains in an undeveloped and natural condition maintained by the Massachusetts Division of Fisheries and Wildlife. Generally, development and improvement will be discouraged with the exception of limited upgrading consisting of rustic fencing. There is a gravel pit operation abutting this area as described previously. Natural habitat and conservation areas will be reserved.

e. Stumpy Pond

Stumpy Pond is maintained in an undeveloped and natural condition by the Massachusetts Department of Fisheries, Wildlife and Recreational Vehicles, Division of Fisheries and Wildlife. Generally, development and improvement will be discouraged with the exception of limited upgrading consisting of rustic fencing.

4. Schedule of Development

In general, additional recreational facilities must be cost shared with non-federal interests in order to complete development of the following areas.

The schedule for development has been determined based upon need and economic reality and, generally, will be as follows:

a. Greenbriar Recreation Area

Proposed expansion and modification of facilities will start in fiscal year 1976 by the Town of Oxford with plans to develop an outdoor amphitheatre, tennis courts, skating rink, and rest rooms. These improvements will be cost-shared with the Town under a formal contract as offered by this Master Plan.

b. Rocky Hill Recreation Area

The construction of fireplaces is scheduled. Although no other specific developments are presently proposed for this site, any future improvements will be cost-shared with the Town under a formal contract as offered by this Master Plan.

c. Hodges Village

The upgrading and improvement of existing facilities at public use access areas are planned to be accomplished in the following descending order of priority: access roadway at dam, recreational vehicle barriers, and graphics and overlook improvements.

d. Conlin Hill and Stumpy Pond

Few tangible improvements are contemplated within this natural wildlife management area. Except for minimal service roadway and trail improvements, future improvements will include reforestation of gravel pit areas and development of a vehicle circulation pattern.

5. Cost Esimates

As indicated in Section XVI., Cost Estimates have been prepared for the Master Plan proposals. Initial and future developments are listed for each of the five areas of the Hodges Village Reservoir.

Greenbriar recreation area initial development includes three tennis courts, a skating rink, outdoor amphitheatre, rest rooms, interpretive panels, signs, landscaping, selective clearing, rustic fencing, drainage, roadway and site improvements. The cost estimate for this work is approximately $176,000, one-half of which would be borne by the Town of Oxford and the other half by the Corps of Engineers under a cost-sharing agreement. Future construction to be undertaken when funding is available would total approxiamtely $502,000 to be cost shared by the Corps and the Town of Oxford. Total costs for this phase of the Master Plan proposal is estimated at $678,000.

Rocky Hill recreation area initial upgrading includes signs, interpretive panels, selective clearing, site improvements,

and picnic facilities. The cost estimate would be approximately $25,000 and cost shared by the Town of Oxford and the Corps of Engineers. The estimate of future improvements would be approximately $76,000. Total estimated costs for this phase of the Master Plan would be approximately $101,000.

Hodges Village Dam area initial development and improvements include roadway improvements, interpretive panels, and signs. Costs would be borne by the Corps of Engineers and would be $24,000 for the initial phase and $28,000 for future phases, for an approximate total cost of $52,000.

Conlin Hill area initial improvements include roadway and drainage improvements, rustic fencing, and signs. Costs of facilities would be shared by the Massachusetts Department of Fisheries, Wildlife and Recreational Vehicles, Division of Fisheries and Wildlife, and the Corps of Engineers and would be $13,000 for the initial phase and $25,000 for future phases with a total estimated cost of $38,000.

Stumpy Pond area initial improvements include roadway improvements, signs, and rustic fencing for an estimated cost of $8,000. Future improvements would be approximately $17,000 for a total estimated cost of $25,000 to be cost shared equally by the Corps of Engineers and the Department of Fisheries, Wildlife and Recreational Vehicles, Division of Fisheries and Wildlife.

IX. FACILITY LOAD AND OTHER DESIGN CRITERIA

1. Siting

All future recreational development should be planned, scheduled, designed, and located with consideration given to environmental and aesthetic qualities, types of use, amount of visitation, and the ability of the area to assimilate activities with due consideration given to overuse, incompatibility, and congestion. All structures should be designed to harmonize with the environment.

2. Water Systems

Hodges Village has water supplied by the Oxford Water Company to the Town of Oxford from ground water sources. Greenbriar and Rocky Hill are presently not served by a water system but can be connected to the Town system.

3. Waste Collection and Treatment Systems

Waste water treatment at all recreation sites containing rest room facilities will be by septic tanks and leaching fields.

Existing sanitary facilities within the project area are of the water-borne sewage type with flush toilets in all rest rooms. New sanitary facilities will also be of this type. These facilities will be approved by the Massachusetts Department of Public Health and the U.S. Environmental Protection Agency to assure compliance with Executive Order No. 11288, 21 July 1966, Section 4, General Standards.

At the present time, there is no danger of pollution of the project waters from abutting land owners. Surveillance will continue to be maintained to prevent pollution.

4. Roads

All existing roads throughout the project consist of a combination of trails, undeveloped haul roads, abandoned railroad beds, former town roads, and existing town roads. Selected roads within the reservoir are planned to be improved to serve as unpaved secondary park access roadways and to meet all State, Town, or Corps requirements. No new roads are planned at any of the recreation sites, although improvements to existing roads are scheduled at the Hodges Village area and within the parcels presently leased by the Commonwealth of Massachusetts.

5. Parking Areas

Existing parking is generally sufficient but undefined and, in several cases, will be modified and improved by installing barriers.

6. Shelters, Rest Rooms, and Other Buildings

Rest rooms have been provided for public use at Hodges Village Dam and have been planned at Greenbriar. An additional rest room may be constructed at Rocky Hill if future use warrants.

7. Overlook Structures

Three overlooks exist within the reservoir area. They are as follows:

a. Greenbriar overlook on State Route 12 provides a scenic automobile overlook of this recreational site. Although a natural overlook exists, due to safety factors, no provision is planned for the creation of parking or stopping facilities.

b. The existing Old Howarth Road overlook is at the west side of the Hodges Village Dam complex. A gravel parking area is provided.

c. The Hodges Village Dam provides an overlook with paved parking facilities and trash receptacles. The most scenic views are at Hodges Village Dam where the Corps has provided picnic tables, park benches, fireplaces, rest rooms, and visitor information at the Project Manager's office.

8. Picnic Units

Adequate picnic facilities are not presently available at all areas. Picnic tables and trash receptacles are provided at Rocky Hill, and additional units exist at Hodges Village. Stumpy Pond and Conlin Hill do not have picnic facilities. Fireplaces are presently available only at Hodges Village.

Fireplaces at Rocky Hill were completely vandalized and no longer exist. New fireplaces are proposed and will be of a more substantial construction.

9. Camping

Infrequent short-term camping activities occur within the reservoir. Generally, camping is limited to local boy scout,

campfire girl, or girl scout weekend trips on an informal basis with permission from the Corps of Engineers.

There are no support facilities for camping available. Sanitary facilities, consisting of temporary slit trenches, and potable water must be provided by the campers.

10. Playground Facilities for Children

Structured playground facilities for children are not available within the reservoir area. Within the large expanses of open land there are sufficient free or unorganized play areas available.

11. Bridges, Storm Drainage Structures Other Than for Roads, Etc.

There are two small bridges within the reservoir. A bridge across the French River on the Old Charlton Road was razed, and its reconstruction is not anticipated at this time because the proposed land use would be incompatible with that of a conservation or wildlife reserve.

12. Electrical Distribution and Security Lighting

Electrical power from local sources is supplied to limited areas of the Greenbriar, Rocky Hill, and Hodges Village Dam sites. No lighting exists in the Stumpy Pond and Conlin Hill areas.

13. Trails

The reservoir service roads, as well as the abandoned Boston and Albany Railroad bed, former Town roads, and haul

roads are used by service vehicles, construction and gravel equipment, snowmobiles, trailbikes, fishermen, hunters, hikers, picnickers, and walkers. The smaller haul road and snowmobile, bike, equestrian, and hiking trails are used by all except motor vehicles. The use of these trails and roads by all forms of public service and recreation vehicles requires coordination to insure adequate protection to wildlife and to minimize conflicts in usage.

The Oxford Snowdusters Snowmobile Club has established trails throughout the reservoir area in cooperation with the Corps of Engineers. One priority program is to maintain trail and roadway use within a controllable level by limiting the number of access points and coordinating with local organizations.

14. Site Improvements

This Master Plan has created five distinct site improvement areas for future development within the Hodges Village Reservoir.

To complete a circulation pattern within all areas, roadway improvements, including the filling in of low spots and the elimination of low wet areas within the upland areas, should be employed.

At the active recreational sites, a domestic water supply should be provided. The source should be either the Oxford Water Company or new ground water wells.

Landscaping to insure wildlife survival should include planting materials for wildlife food supplies. This improvement should employ the practice of hydroseeding with woody plant materials. Ornamental landscaping to improve visual quality should be limited to central access points and to the administration area at the dam.

15. Signs

The area of Hodges Village Dam under the management of the Corps of Engineers presently lacks a well-coordinated graphic system of directional and informational signs. No signs are posted on State Routes 12 and 52 to illustrate where information may be found or what facilities are available.

Access areas should be properly identified and available recreational activities should be posted in such a way that motorists will know where picnic areas, various types of trails, etc. are located in accordance with the Corps of Engineers' sign manual. A series of standardized symbols should be employed which will designate what and where recreational facilities are available. These symbols should be designed so that they will be universally understood by all and still be as simple as possible. Each activity should be designated by a silhouette or outline on the sign. Signs should be large enough to be seen at a reasonable distance and small enough so that they will not be an obstruction or an intrusion on the environment.

All areas operated, maintained, and leased by the Corps will thus be sufficiently identified and the emphasis put upon making people welcome to use the area's facilities.

This entire sign program will be a significant and simple improvement over the existing system.

16. Interpretive Exhibits

Exhibits in the form of tourist information panels and improved graphic handouts about Hodges Village Dam should be prepared. Informational panels should contain information on land use and recreational activities illustrating such activities as fishing, picnicking, snowmobiling, and hiking and located at each of the four main access points.

17. Waste Disposal

Trash cans and rest rooms with flush toilets are provided or will be constructed at Greenbriar and Hodges Village. Additional trash receptacles should be located at Rocky Hill and Greenbriar. Trash receptacles at Stumpy Pond and Conlin Hill should be placed at key trail intersections only.

18. Visitor Safety Controls and Convenience Features

In addition to the usual picnic and sanitary facilities provided, adequate safety controls such as protective fencing, barricades, guardrails, stairways, and railings have been planned at areas necessary to control access of trail bikes, snowmobiles, and other motor vehicles.

19. Facilities for the Elderly and Handicapped

Facilities suited primarily for elderly use or the handicapped are generally not available at the reservoir. Picnic sites at the Hodges Village Dam are suitable for the elderly or handicapped. The remainder of the reservoir remains in a generally natural condition and suitable only for the more active senior citizens. Future facilities will be designed to accommodate elderly or handicapped people.

X. SPECIAL PROBLEMS

1. Natural Resource Preservation

Due to the absolute constraint upon development imposed by flood control operations, Hodges Village provides an opportunity to preserve undeveloped land in a rapidly urbanizing area. The presence of a large, contiguous, undevelopable area in an urbanizing region is conducive to the development of several types of recreation. Multiple purpose resource management has become accepted by all public agencies as a necessary response to the need for obtaining optimum use of public land. The reservoir has natural resource and recreational values that would be wasted if it were managed solely for flood control.

Since most of the wetlands are not well suited to heavy recreational use but are valuable to local ecosystems, the lands lying at the lower elevations that are subject to flooding first

should be protected from development. Trails through and around these areas will be maintained to allow visitors to enjoy these lands in recognition of their scenic wildlife habitat and local ecosystem value.

Ample access to lesser environmentally sensitive lands will be provided in higher elevations of the reservoir.

2. Fish and Wildlife Resources

The Hodges Village Reservoir contains a diverse assortment of vegetation types. These various habitats, in turn, support a variety of native wildlife. The Massachusetts Department of Fisheries, Wildlife and Recreational Vehicles, Division of Fisheries and Wildlife's, Wildlife Management Program at Hodges Village Reservoir consists of stocking pheasants and hare. This program does not significantly affect the ecology of the area since these animals generally do not become established. It does, however, help to satisfy the demand for hunting. Publicly-owned land has become more important in this respect as posting of private land has increased. Hunters from urban areas often prefer to hunt on public land instead of searching for unposted land or contacting landowners for permission to enter their property.

3. Archaeological and Historical Resources

There are no known significant archaeological and little present historical resources within the project area, but there

is future historical importance in the immediate vicinity of the project as previously discussed.

4. Fee System and Collection

Presently, all recreational facilities are open and free to the public. There are no plans to initiate a fee system at Hodges Village Reservoir.

5. Special Land and Water Uses

a. Private Land Development

Development pressure on private land adjacent to the site should be expected to increase in the future as Route 52 becomes connected to the existing Worcester highway network. The area around Hodges Village Reservoir is zoned for residential development. Development is most likely to occur in the area to the east and north of the reservoir area according to a map of natural constraints to development found in the preliminary Oxford Master Plan, "Design for Progress." The areas to the west and south have development constraints imposed by steep slopes and poor soil conditions. Residential development around the reservoir will increase the demand for and use of the recreation facilities at Hodges Village Reservoir.

b. Town Well Field

The Town well field is located in the northeast portion of the reservoir area. It does create a visual disturbance to

the surrounding natural areas. Operation of the well field requires that no development take place within 400 feet of the well sites so that an unpolluted natural aquifer recharge area can be maintained.

XI. PROJECT RESOURCE MANAGEMENT

1. Operational Concepts and Policies

The authorized purpose of the Hodges Village Dam is for the control of flooding in the Thames River Basin, primarily to give protection to Webster, Massachusetts, during flooding of the French River. Management for recreation at the reservoir is a secondary priority that should remain compatible with the primary function of flood control. Within this context, management objectives for recreation are:

a. To encourage sustained public use up to the maximum attainable carrying capacity, consistent with aesthetic and ecological values.

b. To avoid or minimize use conflicts while developing resources.

c. To be aware of and responsive to user needs and desires.

2. Staffing and Organization

A two-man staff consisting of a Project Manager and Assistant Project Manager is normally provided at the Hodges Village Dam to perform the continual operation and maintenance duties that

are required. A temporary employee is usually hired in the summer to aid and assist the Project Manager.

In addition, a Corps of Engineers ranger from the Thames River Basin office at Buffumville Lake makes regular patrols of the reservoir area to assist public visitors and enforce the rules and regulations in Title 36. The ranger has a natural resources background and will assist the Basin Manager in the preparation and implementation of Appendices B and D to this Master Plan.

In addition to overseeing the operation of the dam, the field personnel supervise the use of lands and waters of the project, investigate and report on compliance with the terms of the leases and permits, protect and maintain government property, and enforce high standards of public health and safety. The field personnel are provided with a field manual outlining their responsibilities and duties.

3. Administration and Maintenance

Overall administration of the recreation and conservation program at Hodges Village Reservoir will be carried out jointly through the Corps of Engineers, New England Division, and field personnel at Hodges Village Dam. Division personnel are concerned mainly with the determination of the nature and extent of development; the preparation of site layouts and construction

requirements; the initiation, coordination, and reconciliation of activities relative to policies and regulations; public relations with other interests; and management, leases, licenses, and permits.

The Project Manager is responsible for maintenance of the dam and related facilities. The Town of Oxford leases 109 acres for recreational use and is responsible for administration and maintenance of these areas, subject to the Corps' approval. The Massachusetts Department of Fisheries, Wildlife and Recreational Vehicles, Division of Fisheries and Wildlife, is licensed to stock hare and pheasant on 676 acres of the reservoir and is responsible for the enforcement of hunting and fishing regulations.

4. Law Enforcement

All laws and regulations concerning proper use of the project resources are enforced by the local police, fish and game conservation officers, and Corps of Engineers Rangers, with the cooperation of the Project Manager.

5. Safety

Safety programs are discussed in Section XV.

6. Concession Activities

There are no concessions operating at Hodges Village Reservoir.

7. Visitor Interpretation and Education

Information pamphlets for Hodges Village Dam and other Corps projects are available at the Project Manager's office.

Rustic signs are located at appropriate places throughout the reservoir area to provide information and orientation to the visitor.

XII. FOREST MANAGEMENT

A forest management plan will be prepared by the Thames River Basin office as Appendix B to this Master Plan. A forest management program will be adopted that stresses the following objectives:

1. To maintain a dynamic forest community for recreational use and development.
2. To provide diverse woodland cover essential for wildlife habitat.
3. To preserve and retain vigorous vegetation cover to prevent and control soil erosion.
4. To provide a pleasing forest setting for aesthetic enjoyment.
5. To ensure utilization of forest products obtained while accomplishing the above goals.

These objectives can be met with a program that stresses tree maintenance and arboriculture near actively used recreation sites and dam facilities. Cutting and planting in these areas will be directed towards increasing their attractiveness and promoting visitor safety.

In the undeveloped areas of the reservoir, cutting may be used to remove diseased trees, for maintaining and creating openings in mature timber stands for wildlife, and regenerating healthy standards of timber for the future.

XIII. FIRE PROTECTION

Forest cover exists on both sides of the river in the reservoir area. The danger of forest fires is ever-present, and public recreational use tends to increase this hazard. Fires are permitted only where fireplaces are provided. All fires must be extinguished before visitors leave the area.

Fire protection and suppression services of the Town of Oxford are available. Roads and trails throughout the project area will be maintained in a manner adequate to permit access to fire fighting equipment.

Fire and emergency plans and programs are posted and are revised annually. All fire equipment is maintained and inspected periodically by project personnel.

The Project Manager is on the alert for fires during periods of forest fire danger. He is familiar with all sources of water and to its availability during the dry season.

XIV. FISH AND WILDLIFE MANAGEMENT

Management of the fish and wildlife resources at Hodges Village Reservoir is under the jurisdiction of the Massachusetts

Department of Fisheries, Wildlife and Recreational Vehicles, Division of Fisheries and Wildlife. The present management program consists of releasing approximately 500 pheasant and 100 to 150 hare and stocking of trout in limited stream areas.

XV. PROJECT SAFETY

The Project Manager at Hodges Village Dam is responsible for developing plans and programs designed to implement and enforce safety regulations and requirements. A hazard-free environment for both Corps personnel and the visiting public is essential.

Project personnel are required to identify hazards and unsafe conditions that occur in all areas of their operation. Once identified, they take steps to prevent, reduce, or control such hazards.

Project personnel are trained in safety regulations and in the use of safety equipment. Markers, signs, or guardrails are provided at appropriate locations throughout the area. Negative signs and warnings have been held to a minimum so that the public may enjoy the greatest freedom without unnecessary restraint.

Access roads are closed to the public during flood control operations.

Hunters are controlled by the Massachusetts fish and game laws which generally prohibit activities which would damage

vegetation or government property or which would threaten the safety of hunters or other project users.

The rules and regulations of the project are reasonable and, if obeyed, help to protect the natural environmental and aesthetic values of the reservoir as well as the people who use it. A more detailed discussion of project safety is contained in the Appendix.

XVI. COST ESTIMATES

Included in the following tables are the estimated cost of Master Plan proposals as previously outlined. These are summarized according to item, quantity, unit cost, initial cost, future cost, and total quantity cost. The phasing has been described in more detail in Section VIII., 5. Contingencies, E & D (Engineering and Design), and S & A (Supervision and Administration) have also been included in the total cost estimate. For recreational development proposed at Hodges Village Reservoir, the Federal, State, and Town costs of the cost-sharing arrangement have been listed. Total development costs are estimated at $678,000 at Greenbriar, $105,000 at Rocky Hill, $52,000 at Hodges Village Dam, $38,000 for the Conlin Hill Area, and $25,000 for the Stumpy Pond area.

No other development costs are anticipated. No additional land will be needed for recreational proposals.

GREENBRIAR RECREATION AREA

Item	Unit	Unit Cost	Initial Qty.	Initial Cost	Future Qty.	Future Cost	Total Qty.	Total Cost
Tennis Court	Each	$12,000	3	$ 36,000	3	$ 36,000	6	$ 72,000
Skating Rink	Each	6,000	1	6,000	1	6,000	2	12,000
Rest Rooms	L.S.	30,000	1	30,000	1	30,000	2	60,000
Site Improvements	L.S.	5,000	1	5,000			1	5,000
Road Improvements	L.S.	10,000	1	10,000	2	20,000	3	30,000
Interpretive Panels	Each	1,500	1	1,500	1	1,500	2	3,000
Signs	Each	400	20	8,000	10	4,000	30	12,000
Panel Shelters	Each	3,000	1	3,000	1	3,000	2	6,000
Other Improvements	Each	1,000	1	1,000	1	1,000	2	2,000
Drinking Water System	L.S.	20,000			1	20,000	1	20,000
Picnic Tables	Each	100			10	1,000	10	1,000
Park Benches	Each	50			10	500	10	500
Fireplaces	Each	200			4	800	4	800
Trash Receptacles	Each	25	20	500	20	500	40	1,000
Baseball Field	L.S.	50,000			1	50,000	1	50,000
Amphitheatre	L.S.	15,000	1	15,000			1	15,000
Rustic Fencing	L.F.	10	200	2,000	2,000	20,000	2,200	22,000
Paved Walks	S.Y.	4			1,000	4,000	1,000	4,000
Parking Improvements	S.Y.	5			8,000	40,000	8,000	40,000
Fill, Topsoil, Seeding	S.Y.	5			10,000	50,000	10,000	50,000
Landscaping	L.S.	10,000	1	10,000	1	10,000	2	20,000
Drainage Improvements	L.S.	5,000	1	5,000	1	5,000	2	10,000
Vista Clearing	L.S.	1,000	1	1,000	1	1,000	2	2,000
Lighting	Each	20,000			2	40,000	2	40,000
Tennis Lighting	Each	6,000			6	36,000	6	36,000
SUB-TOTAL				$134,000		$380,300		$514,300
Contingencies				13,000		38,000		51,000
Construction Cost				147,000		418,300		565,300
E. & D. and S. & A.				29,000		83,700		112,700
TOTAL COST				$176,000		$502,000		$678,000
Federal Cost				$ 88,000		$251,000		$339,000
Non-Federal Cost				$ 88,000		$251,000		$339,000

ROCKY HILL RECREATION AREA

Item	Unit	Unit Cost	Initial Qty.	Initial Cost	Future Qty.	Future Cost	Total Qty.	Total Cost
Site Improvements	Each	$ 1,000	1	$ 1,000		$	1	$ 1,000
Drinking Water System	L.S.	6,000			1	6,000	1	6,000
Rest Rooms	Each	30,000			1	30,000	1	30,000
Signs	Each	400	10	4,000	10	4,000	20	8,000
Picnic Tables	Each	100	20	2,000	10	1,000	30	3,000
Park Benches	Each	50	10	500	10	500	20	1,000
Trash Receptacles	Each	25	10	250	30	750	40	1,000
Parking Improvements	L.S.	3,000			1	3,000	1	3,000
Topsoil & Seeding	L.S.	2,000			1	2,000	1	2,000
Interpretive Panels	Each	1,500	1	1,500	1	1,500	2	3,000
Panel Shelter	Each	3,000	1	3,000	1	3,000	2	6,000
Vista Clearing	L.S.	1,000	1	1,000	1	1,000	2	2,000
Fireplaces	Each	200	5	1,000	5	1,000	10	2,000
Landscaping	L.S.	5,000			1	5,000	1	5,000
Bleachers	L.S.	5,000	1	5,000			1	5,000
SUB-TOTAL				$ 19,250		$ 58,750		$ 78,000
Contingencies				1,900		5,900		7,800
Construction Cost				21,150		64,650		85,800
E. & D. and S. & A.				3,850		11,350		15,200
TOTAL COST				$ 25,000		$ 76,000		$101,000
Federal Cost				$ 12,500		$ 38,000		$ 50,500
Non-Federal Cost				$ 12,500		$ 38,000		$ 50,500

HODGES VILLAGE DAM AREA

Item	Unit	Unit Cost	Initial Qty.	Initial Cost	Future Qty.	Future Cost	Total Qty.	Total Cost
Roadway Improvements	L.S.	$ 5,000	1	$ 5,000		$	1	$ 5,000
Interpretive Panels	Each	1,500	2	3,000			2	3,000
Panel Shelters	Each	3,000	2	6,000			2	6,000
Signs	Each	400	10	4,000	10	4,000	20	8,000
Picnic Tables	Each	100			10	1,000	10	1,000
Park Benches	Each	50			10	500	10	500
Trash Receptacles	Each	25			20	500	20	500
Rustic Fencing	L.F.	10			500	5,000	500	5,000
Landscaping	L.S.	5,000			2	10,000	2	10,000
SUB-TOTAL				$ 18,000		$ 21,000		$ 39,000
Contingencies				$ 2,000		$ 2,000		$ 4,000
Construction Cost				$ 20,000		$ 23,000		$ 43,000
E. & D. and S. & A.				$ 4,000		$ 5,000		$ 9,000
TOTAL COST				$ 24,000		$ 28,000		$ 52,000
Federal Cost				$ 24,000		$ 28,000		$ 52,000
Non-Federal Cost				$ 0		$ 0		$ 0

CONLIN HILL AREA

Item	Unit	Unit Cost	Initial Qty.	Initial Cost	Future Qty.	Future Cost	Total Qty.	Total Cost
Roadway Improvements	L.S.	$ 2,500	1	$ 2,500	1	$ 2,500	2	$ 5,000
Drainage Improvements	L.S.	3,000	1	3,000			1	3,000
Interpretive Panels	Each	1,500			1	1,500	1	1,500
Panel Shelters	Each	3,000			1	3,000	1	3,000
Signs	Each	400	5	2,000			5	2,000
Trash Receptacles	Each	25	10	250	10	250	20	500
Rustic Fencing	L.F.	10	200	2,000	200	2,000	400	4,000
Landscaping	L.S.	10,000			1	10,000	1	10,000
SUB-TOTAL				$ 9,750		$ 19,250		$ 29,000
Contingencies				1,000		1,900		2,900
Construction Cost				10,750		21,150		31,900
E. & D. and S. & A.				2,250		3,850		6,100
TOTAL COST				$ 13,000		$ 25,000		$ 38,000
Federal Cost				$ 6,500		$ 12,500		$ 19,000
Non-Federal Cost				$ 6,500		$ 12,500		$ 19,000

STUMPY POND AREA

Item	Unit	Unit Cost	Initial Qty.	Initial Cost	Future Qty.	Future Cost	Total Qty.	Total Cost
Roadway Improvements	L.S.	$ 2,500	1	$ 2,500	1	$ 2,500	2	$ 5,000
Drainage Improvements	L.S.	3,000			1	3,000	1	3,000
Signs	Each	400	5	2,000			5	2,000
Trash Receptacles	Each	25			10	250	10	250
Rustic Fencing	L.F.	10	200	2,000	200	2,000	400	4,000
Landscaping	L.S.	5,000			1	5,000	1	5,000
SUB-TOTAL				$ 6,500		$ 12,750		$ 19,250
Contingencies				$ 500		$ 1,250		$ 1,750
Construction Cost				$ 7,000		$ 14,000		$ 21,000
E. & D. and S. & A.				$ 1,000		$ 3,000		$ 4,000
TOTAL COST				$ 8,000		$ 17,000		$ 25,000
Federal Cost				$ 4,000		$ 8,500		$ 12,500
Non-Federal Cost				$ 4,000		$ 8,500		$ 12,500

XVII. CONCLUSIONS

Hodges Village Dam, originally conceived solely for flood control purposes, has evolved from an undeveloped natural habitat surrounded by a rural town into a multi-use recreation and flood control facility utilized today by both local residents and visitors. In the future, if present growth trends continue, the reservoir facility shall become a combination flood control facility and suburban linear park system which would provide for local residents a major community park.

It is necessary, therefore, to provide additional active and passive recreational facilities due to anticipated urbanization and usage demands of a populace rapidly becoming more urbanized and desirous of seeking more intimate contact with nature.

This Master Plan cannot, by itself, solve the regional open and green space problems, but must be considered with respect to other federal, state, and municipal public lands in the environs.

Therefore, cooperation among the Town of Oxford, the Central Massachusetts Regional Planning Commission, the Commonwealth of Massachusetts, and the Corps of Engineers is mandatory in order to create and maintain a local green space and a regional green wedge which provides each person with an opportunity to participate in a positive recreational experience.

The Greenbriar and Rocky Hill areas east of the French River will receive the greatest pressure of intensive recreation. Between these two areas, an open green space must be maintained to protect the future demands of the Oxford Water Company. West of the French River, the existing passive green space should be maintained with each side of the river interwoven with trails.

The reservoir should remain a four-season recreational resource; and, as foreseen in the future, as a central location where one has opportunities for hiking, snowmobiling, trail biking, horseback riding, fishing, hunting, picnicking, ball playing, tennis, and ice skating.

XVIII. RECOMMENDATIONS

This Master Plan recommends the following courses of action to improve the utilization of the Hodges Village Reservoir. Economics is of serious concern and, therefore, a multi-phase program is to be initiated to accomplish the goals established herein.

1. Phase I - Immediate Scheduling

   Greenbriar -

   Construction: Tennis court, skating rink, rest rooms, and improved directional and informational signs

   Maintenance: Grade access road, grade park road, and provide trash receptacles

Rocky Hill -

Construction: Fireplaces, directional and informational signs, and place barricade across road through picnic area

Maintenance: Picnic tables, trash receptacles, selectively thinning of trees along Old Howarth Road, grade area for fishermen's parking, and improve picnic area and ballfield

Hodges Village -

Construction: Directional and informational signs, panel shelters, and interpretive panels

Maintenance: Roadway improvements

Conlin Hill -

Construction: Rustic fencing, improved directional and informational signs

Maintenance: Roadway improvements, drainage improvements, and trash receptacles

Stumpy Pond -

Construction: Rustic fencing, improved directional and informational signs

Maintenance: Roadway improvements

2. Phase II - Immediate Future

Greenbriar -

Construction: Amphitheatre, ballfield, drinking fountain, picnic area, and parking area

Maintenance: Selectively thinning trees for picnic area and grading for amphitheatre parking and landscaping

Rocky Hill -

Construction: Bleachers and drinking fountain

Maintenance: Grade for additional ballfield parking

Hodges Village -

Construction: Signs, picnic tables, park benches, trash receptacles, and rustic fencing

Maintenance: Landscaping

Conlin Hill -

Construction: Interpretive panels, panel shelters, trash receptacles, and rustic fencing

Maintenance: Roadway improvements and landscaping

Stumpy Pond -

Construction: Trash receptacles and rustic fencing

Maintenance: Roadway improvements, drainage, and landscaping

3. Phase III - Long Term Scheduling

Greenbriar -

Construction: Paved walkway to amphitheatre, pedestrain lights, and tennis court floodlights

Maintenance: Landscaping

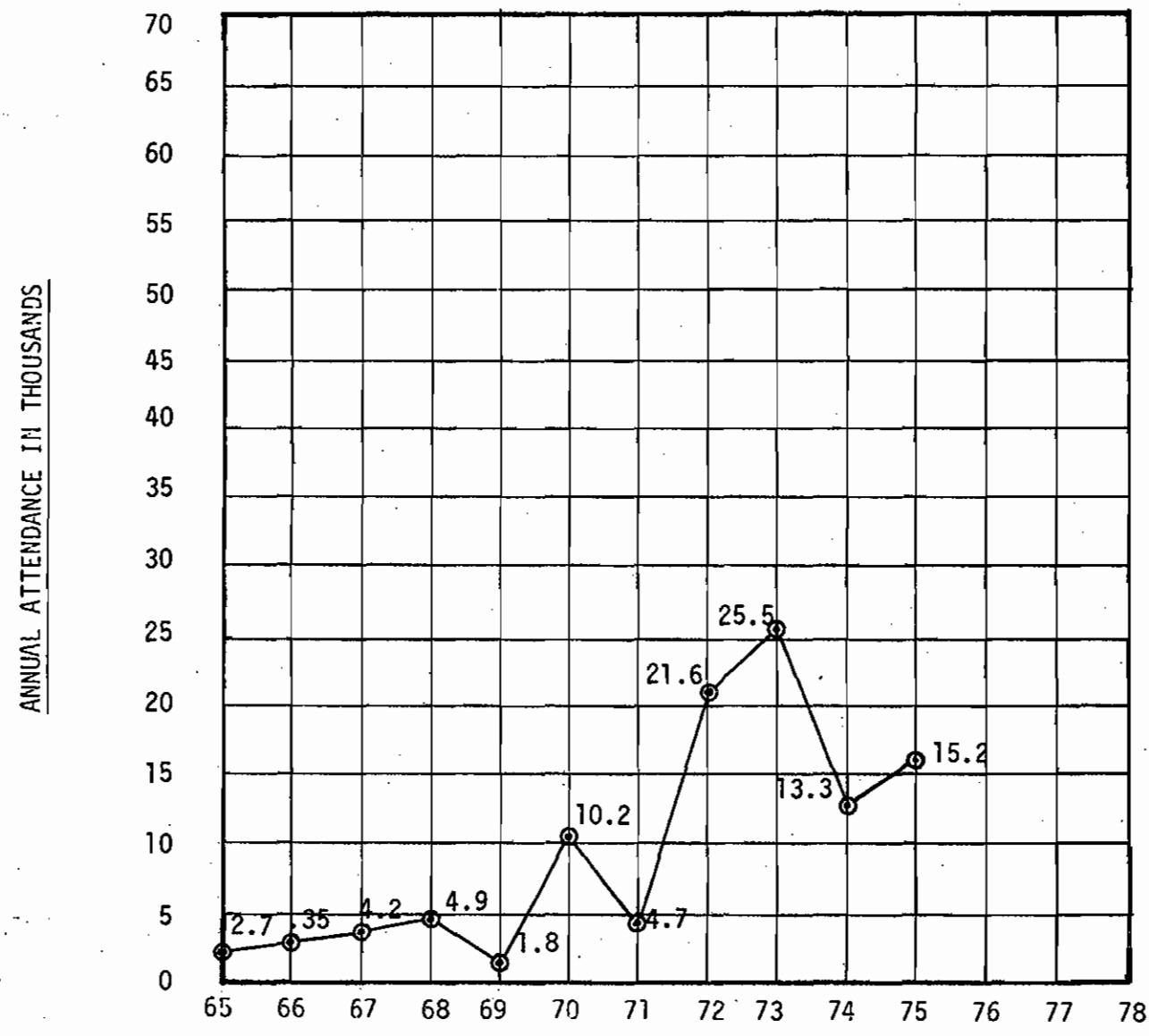
EXHIBITS

VISITATION BY AREA

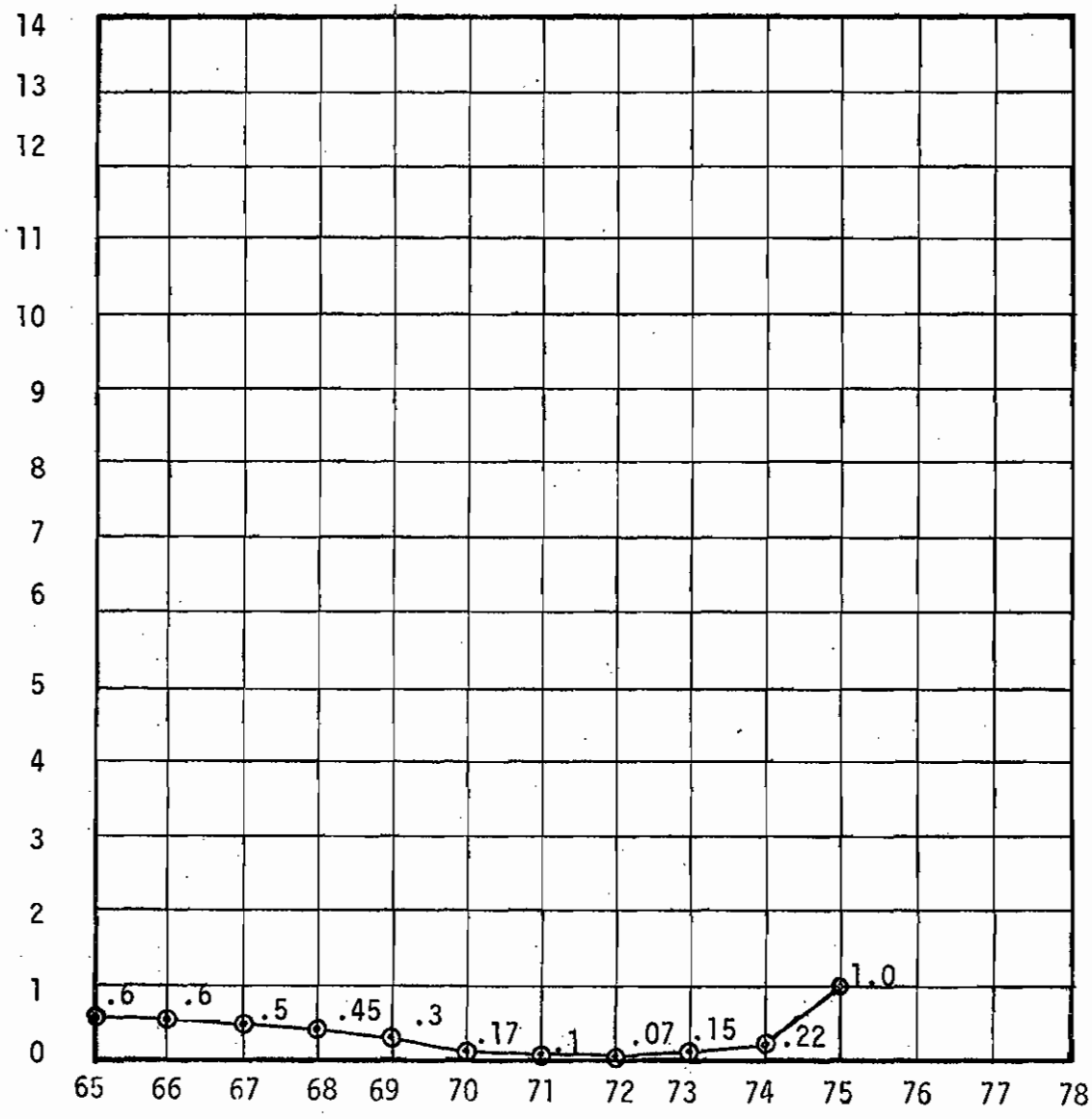
	1965	1966	1967	1968	1969	1970
Vicinity of Dam	5,839	4,953	5,477	7,528	8,895	3,901
Overlook Area	1,490	1,486	1,306	2,452	7,077	3,083
Greenbriar	1,062	1,077	19,315	11,562	19,835	11,980
Rocky Hill	3,510	3,236	4,530	6,230	3,308	27,025
TOTAL	11,901	10,752	30,628	27,772	39,115	45,989

	1971	1972	1973	1974	1975
Vicinity of Dam	5,757	9,926	12,206	11,232	12,745
Overlook Area	4,966	6,579	8,373	8,275	9,577
Greenbriar	26,452	24,075	26,229	26,583	24,288
Rocky Hill	9,257	12,980	12,709	13,562	16,583
TOTAL	46,432	53,560	59,517	59,652	63,193

BALLPLAYING



CAMPING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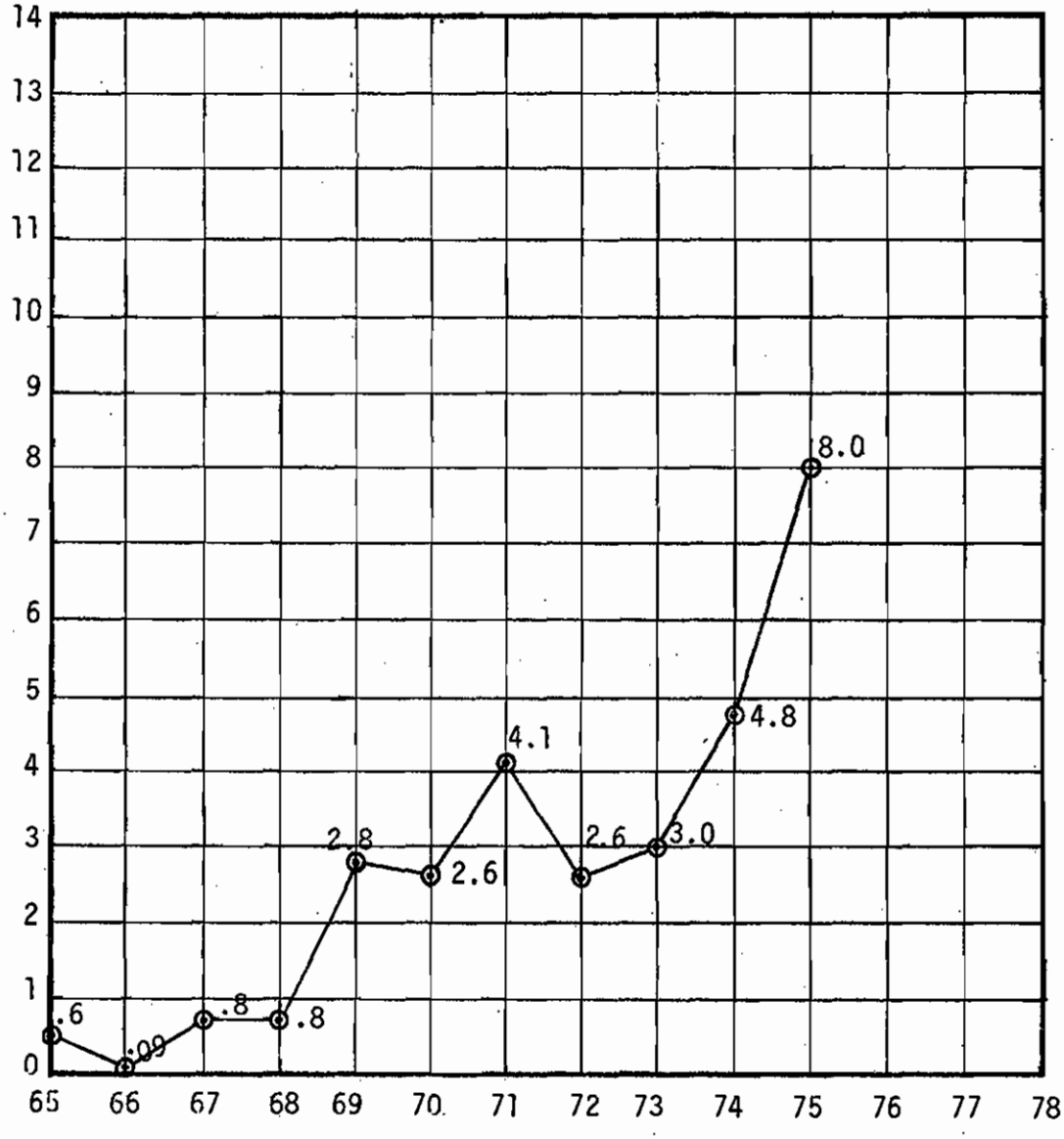
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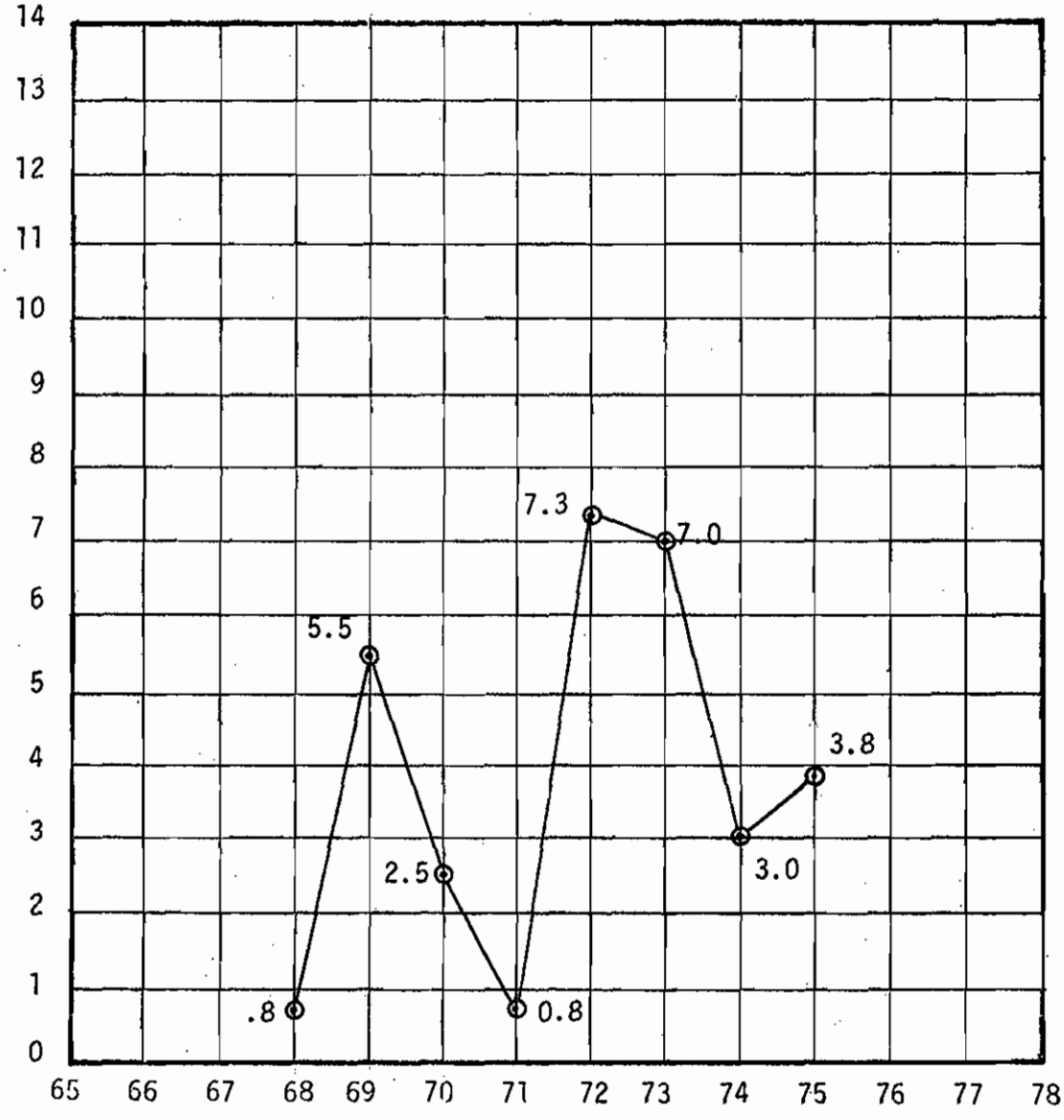
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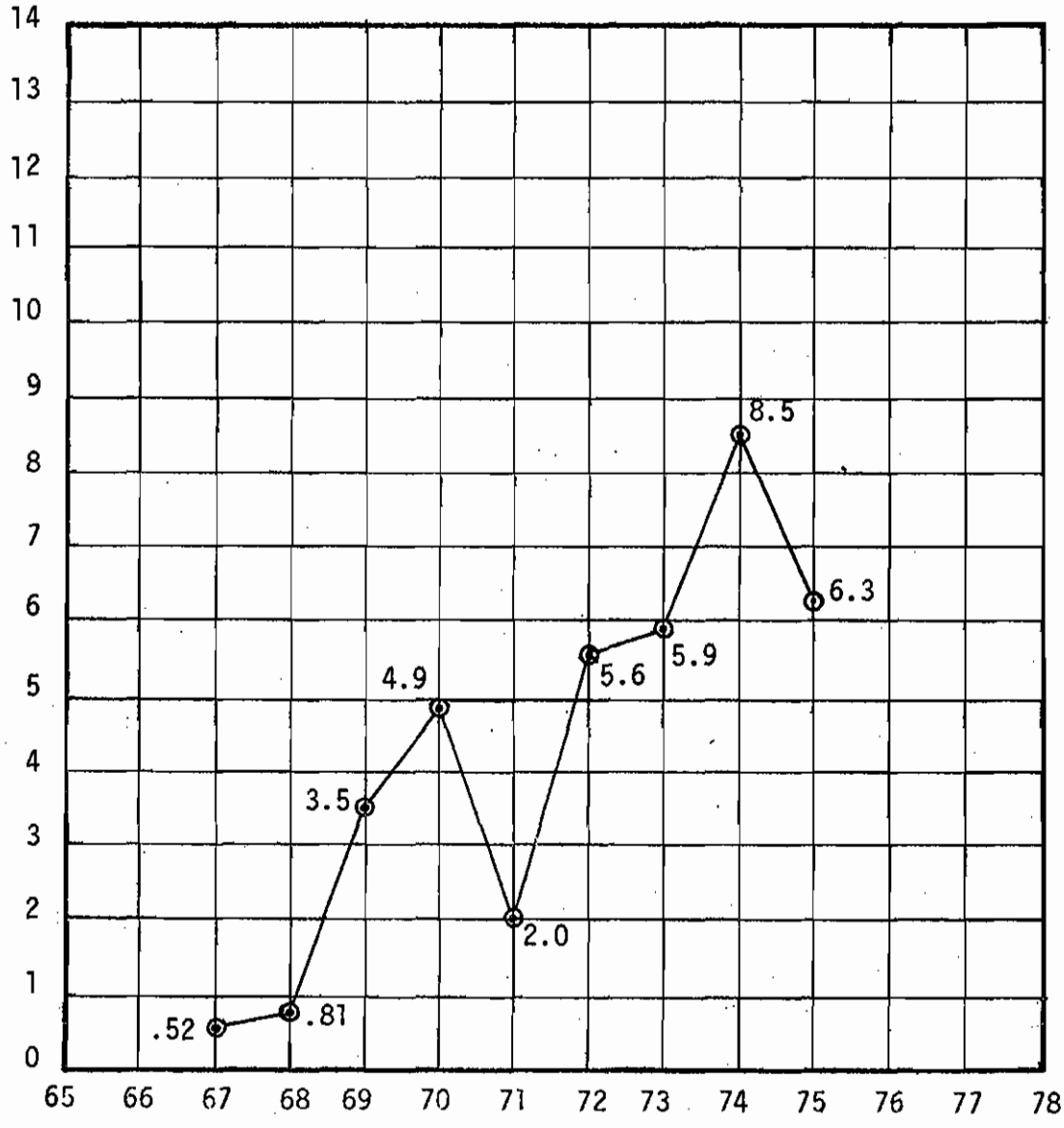
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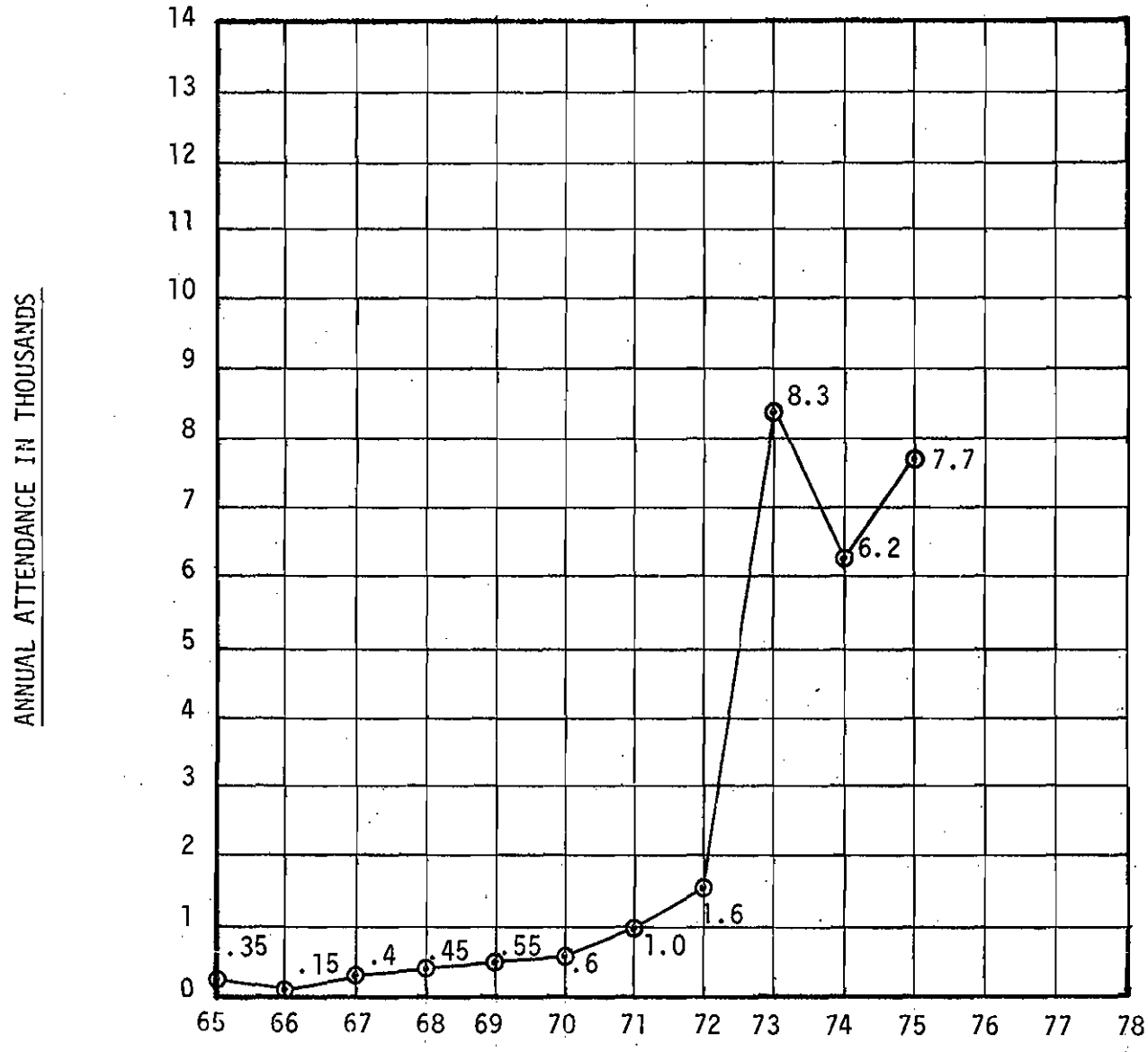

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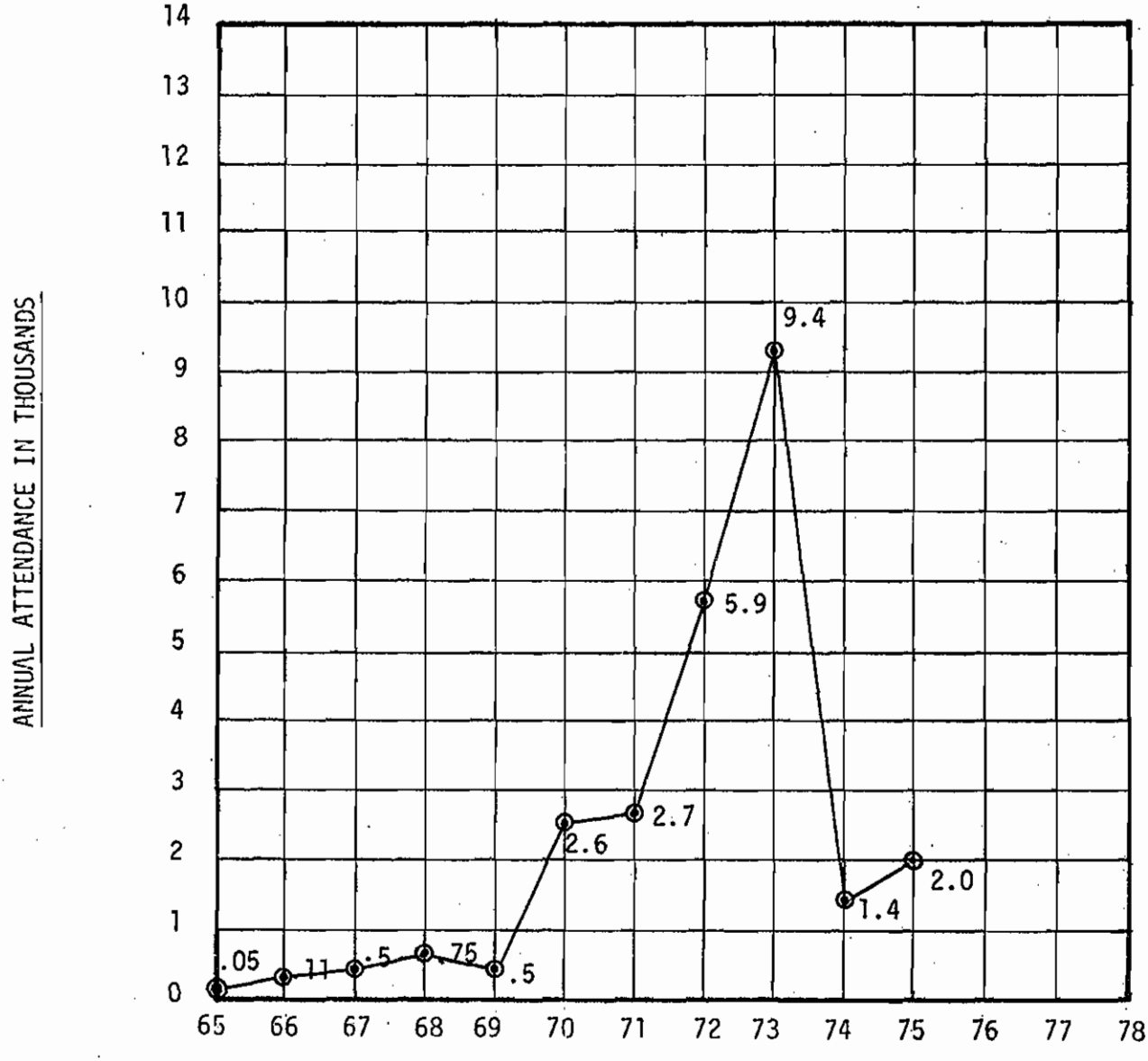
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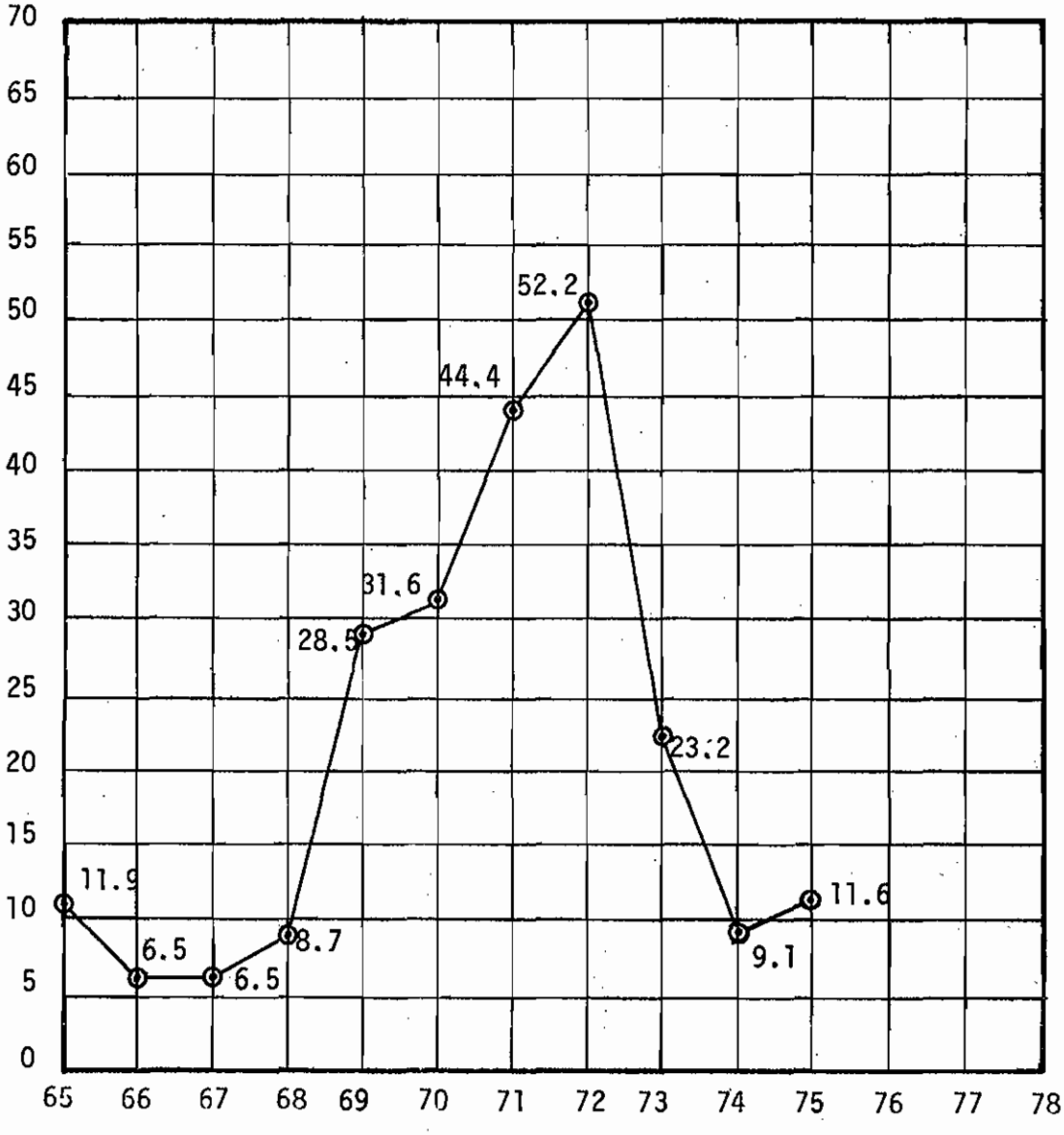

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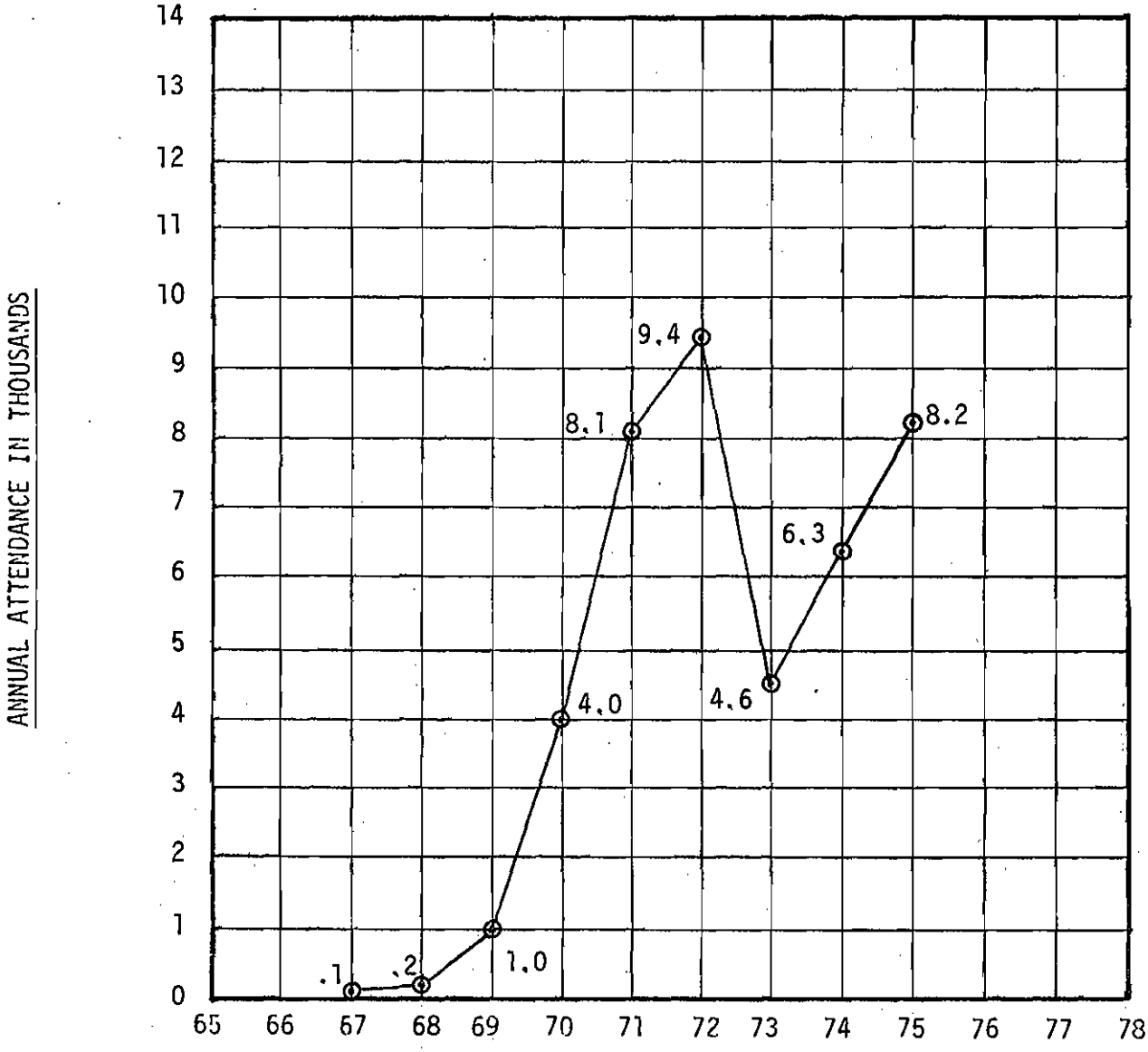
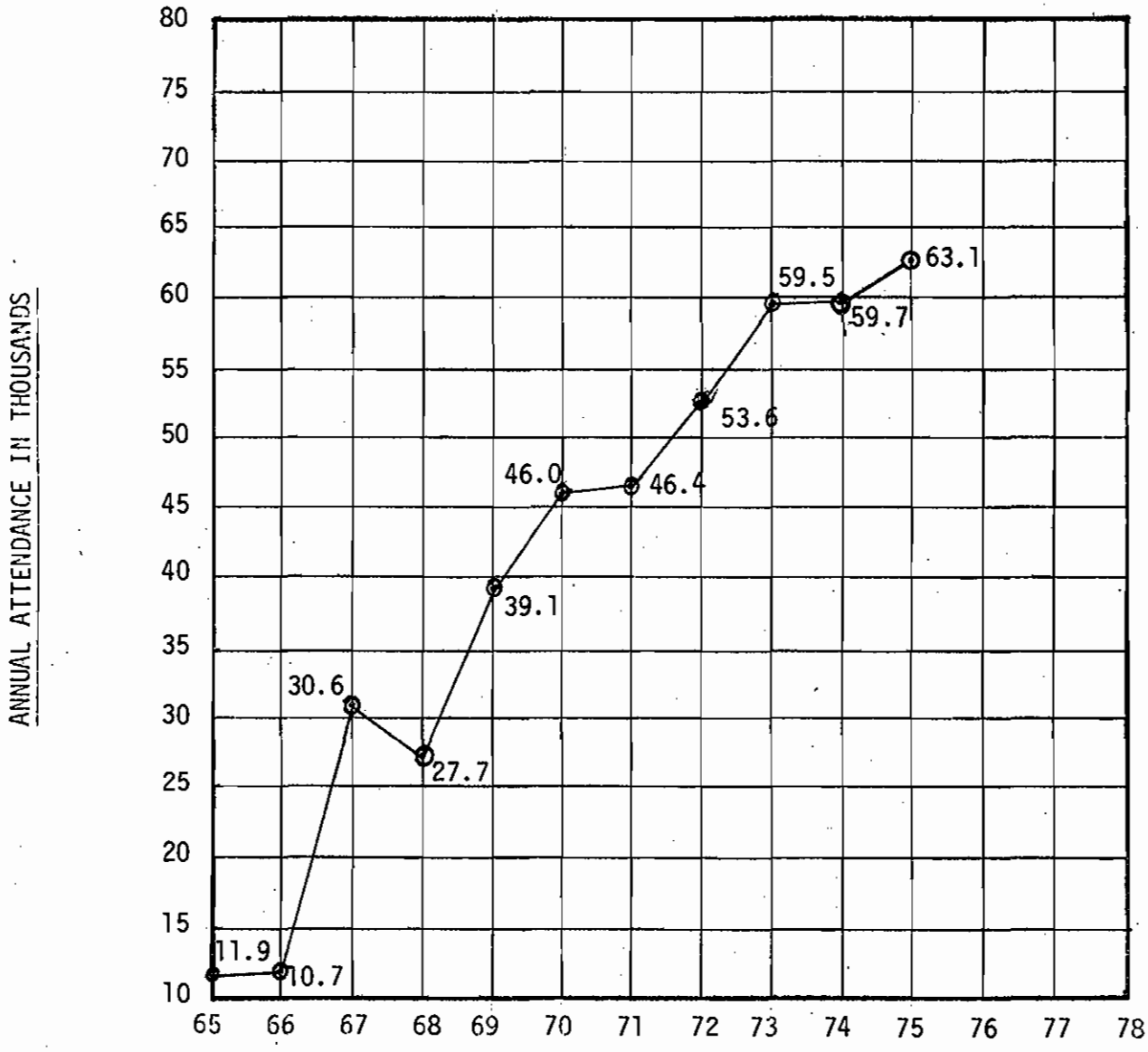
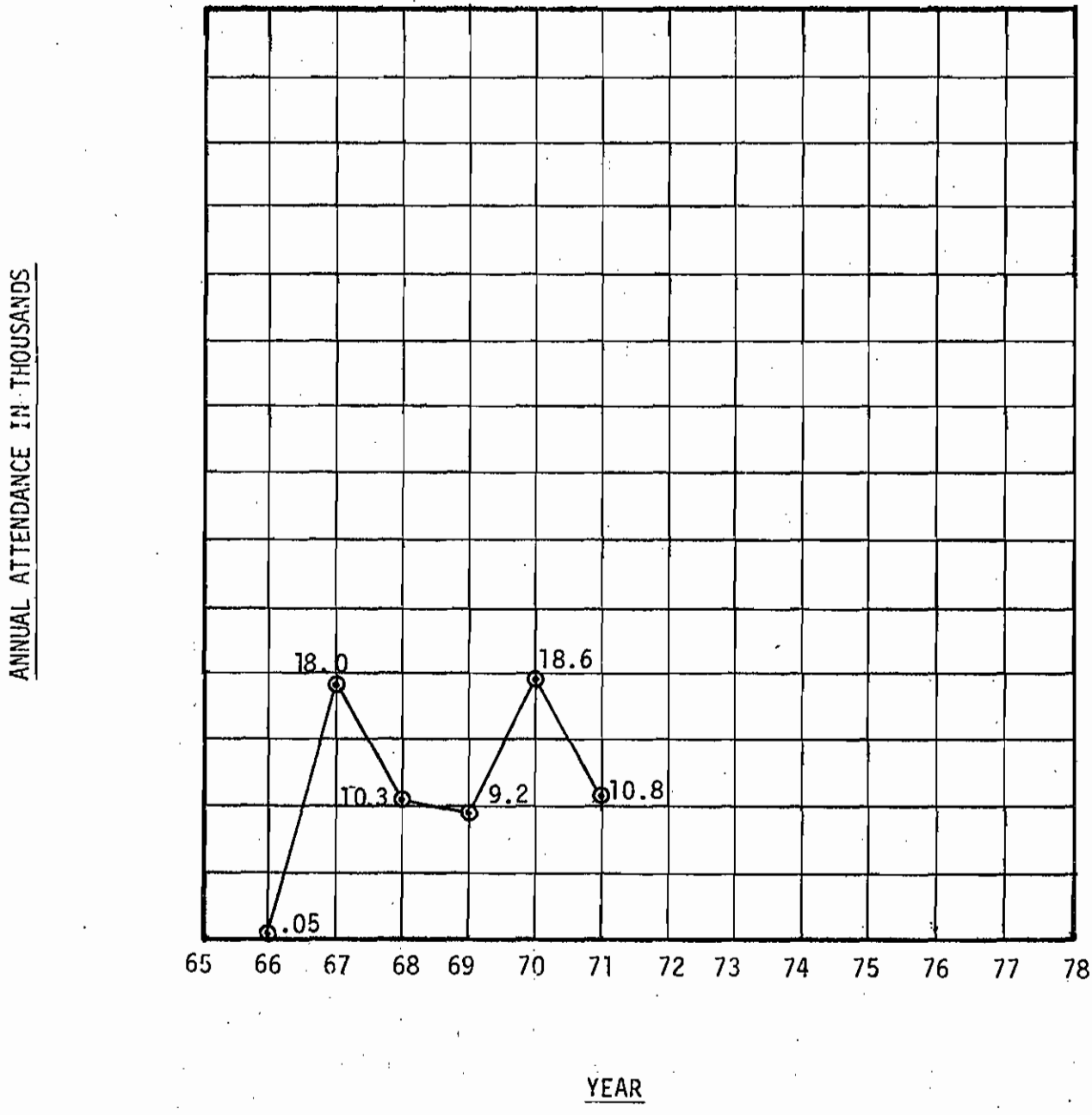
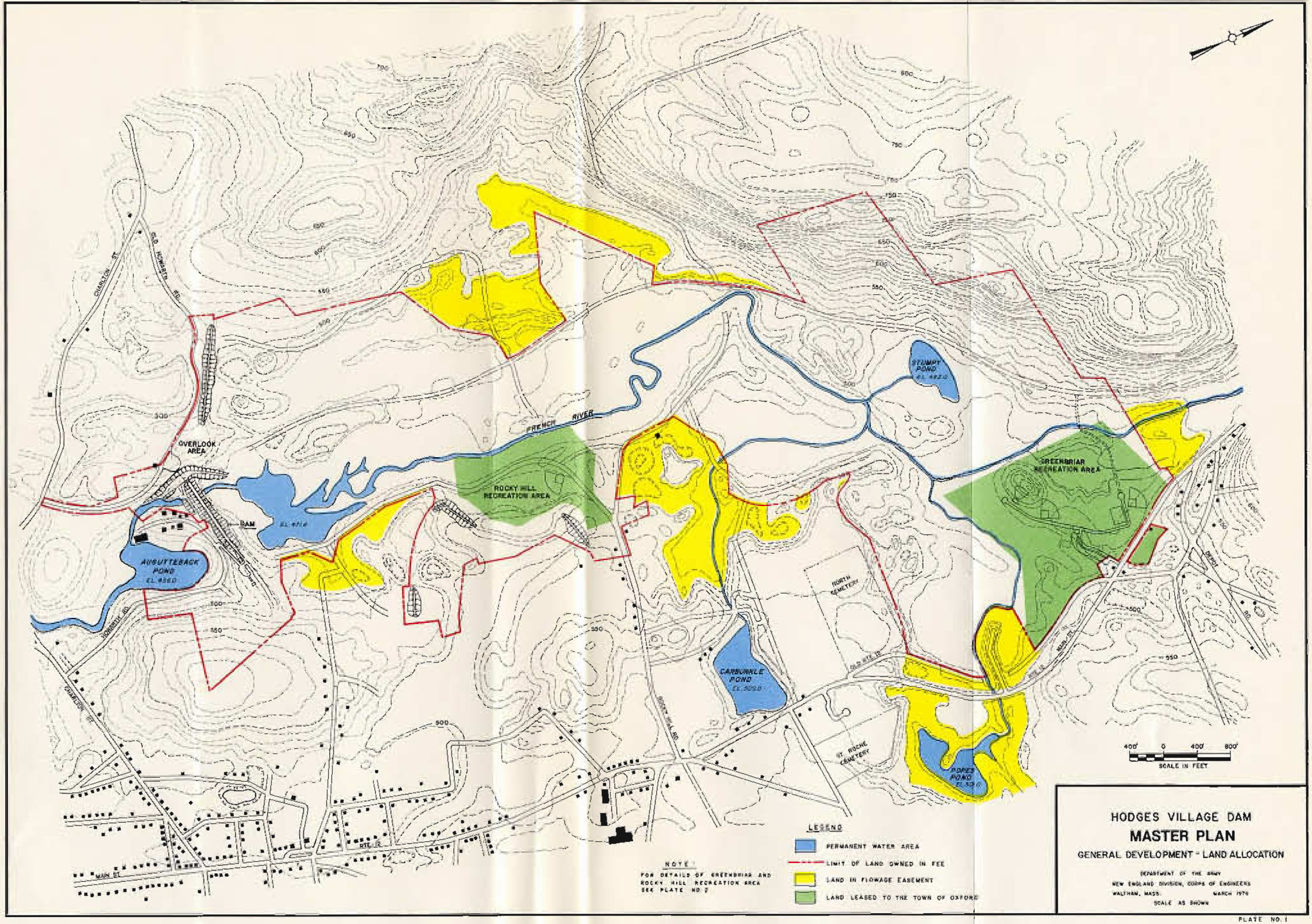


TOTAL VISITATION AT HODGES VILLAGE RESERVOIR



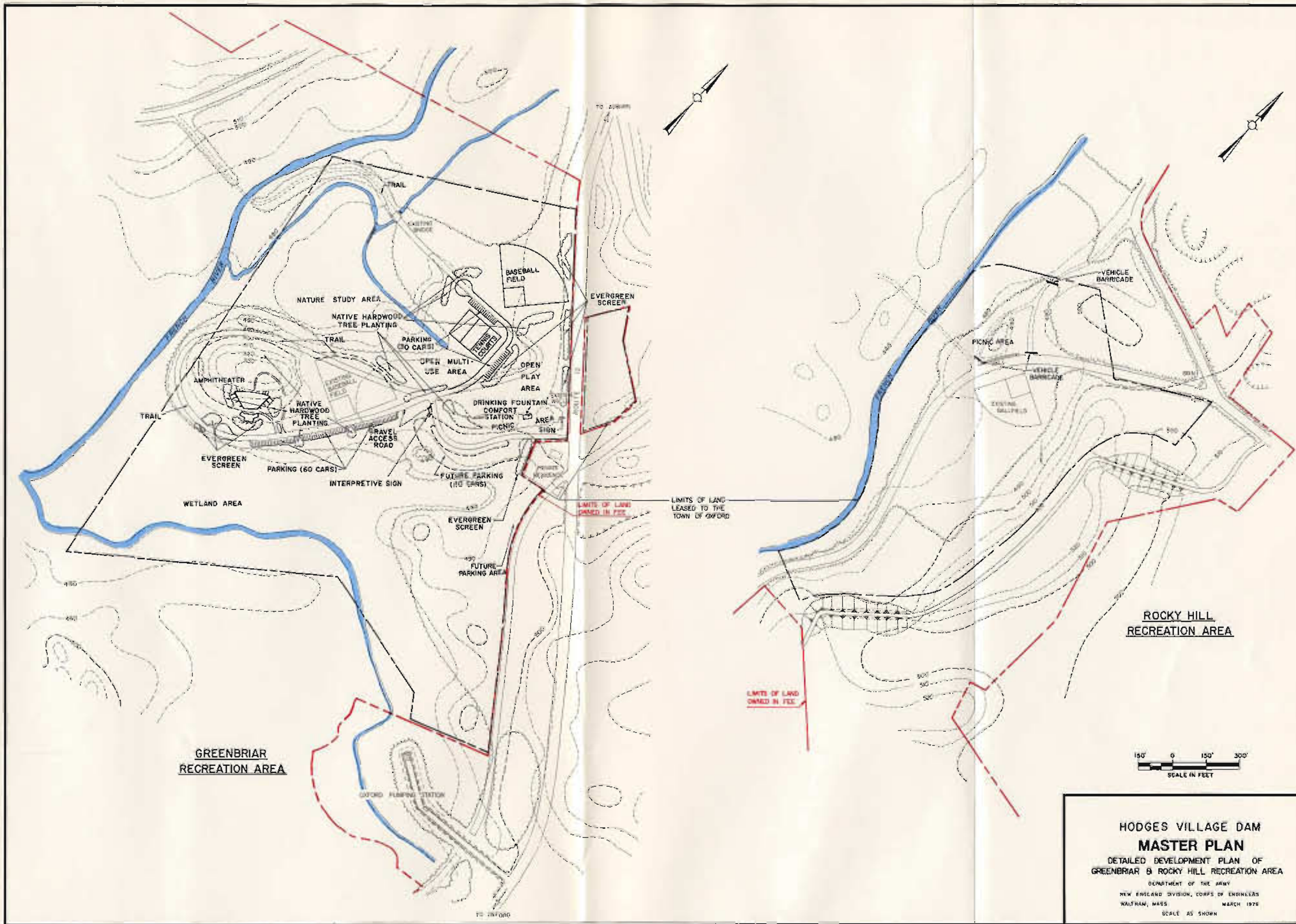
MISCELLANEOUS TOWN ACTIVITIES





HODGES VILLAGE DAM
MASTER PLAN
GENERAL DEVELOPMENT - LAND ALLOCATION
DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS.
MARCH 1976
SCALE AS SHOWN
LEGEND
PERMANENT WATER AREA
LIMIT OF LAND OWNED IN FEE
LAND IN FLOWAGE EASEMENT
LAND LEASED TO THE TOWN OF OXFORD
NOTE
FOR DETAILS OF GREENBRIAR AND ROCKY HILL RECREATION AREA SEE PLATE NO. 2
400' 0 400' 800'
SCALE IN FEET
FRENCH RIVER
OVERLOOK AREA
DAM
ROCKY HILL RECREATION AREA
GREENBRIAR RECREATION AREA
STUMPY POND
CARBUNKLE POND
POPES POND
NORTH CEMETERY
ST. ROCHE CEMETERY
CHARLTON ST.
MAIN ST.
RTE. 12
OLD RTE. 12
ROCKY HILL RD.

PLATE NO. 1



HODGES VILLAGE DAM

MASTER PLAN

DETAILED DEVELOPMENT PLAN OF GREENBRIAR & ROCKY HILL RECREATION AREA

DEPARTMENT OF THE ARMY

NEW ENGLAND DIVISION, CORPS OF ENGINEERS

WALTHAM, MASS MARCH 1975

SCALE AS SHOWN

PLATE NO. 2