

AN EXAMINATION OF SOME
IMPLICATIONS OF PRIVATE COTTAGE DEVELOPMENT

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ABSTRACT

AN EXAMINATION OF SOME IMPLICATIONS OF PRIVATE COTTAGE DEVELOPMENT

by David George Carvey

The purpose of this presentation is to examine the nature of private cottage development in terms of its importance to the present recreation situation. Some economic aspects of such development are examined in general terms and more specifically, the economic impact around Secord Reservoir, Gladwin County, Michigan is explored.

Private cottages or second homes are becoming more numerous and more important as time passes. An estimated 3.5 million such dwelling units existed in 1965. There may be as many as 100,000 new construction starts in this type of housing annually. The importance of such development stems from the inherent economic implications related to individual investment and other expenditures in an area which was considerably less valuable previous to its development. Land values rise, taxes increase and social problems evolve as a result of such development.

The Tittabawassee River basin was examined in terms of recreation opportunity offered by three sectors of supply: (1) public areas, (2) private commercial enterprises, and (3) private cottages. The findings illustrated that it is possible that private cottages do offer a significant contribution to the recreation opportunity situation.

To further examine the many aspects and results of cottage development, a case study of Secord Reservoir was made. Findings indicated that cottagers contribute substantially to the local economy by means of investment, subsistence, and tax expenditures. These expenditures serve to guarantee cottagers a considerable amount of recreation-leisure opportunity.

Secord cottage owners generally come from the southeastern portion of lower Michigan. Weekend visits are more popular but summer vacations at the Reservoir are common.

Secord cottagers expressed a good deal of contentment in terms of available recreation-leisure opportunity but something less than contentment when expressing opinions concerning various social and institutional considerations affecting them during their visits to the area. Problems are not prevalent but yet cottagers expressed desires to have more order to and regulation over future land use and development, as well as more regulation over the uses of the reservoir surface itself.

The character of the Secord cottage community and its problems will likely change in the next few years as cottagers have indicated some interest in considering retirement to their cottage homes. The significance of this conclusion is supported by the age distribution of cottage owners. The distribution is characterized by a large proportion over 50 years of age with many approaching retirement age.

Although Secord Reservoir is over 40 years old, most small tract-cottage

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development has occurred since 1940. In fact, some 45 percent of all development occurred in the five-year period from 1955 to 1960. Development has since slowed down.

The study showed that it might be valuable for various agencies with responsibilities in the field of recreation to explore the importance of private cottage development in terms of the recreation-leisure opportunity provided and also in terms of the economic impact such development can have on certain types of areas characterized by unemployment, underemployment or general lack of economic development.

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OF PRIVATE COTTAGE DEVELOPMENT

By

David George Carvey

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CHAPTER I

INTRODUCTION

Outdoor Recreation in General

Recreation in general, and outdoor recreation in particular, is of considerable importance in today's society in terms of its economic and social implications. The validity of this conclusion is based on (1) the volume of recent literature concerning recreation, and (2) the general interest in conservation and development of human and natural resources and the movement toward widespread social acceptance of some philosophy or form of conservation-development attitudes as indicated by actions of the U.S. Congress, especially since the late 1950's.

Why this deepening concern about recreation? Is the importance of recreation being overemphasized? There are two areas of exploration to be considered in this respect. The first concerns the implications recreation has for man as an individual entity. These implications are of a personal nature, related to man's emotions and mental and physical well-being. The second area of concern revolves about the implications recreation has for the society in which man exists. These implications are expressed in terms of decisions, institutional and economic, which lead various population segments in various directions in terms of the use of time not needed for personal sustenance, although perhaps some experts in the fields of

outdoor recreation, psychiatry, psychology, planning, or sociology might argue that such recreation is a necessary element of bodily (and mental) sustenance. Such implications are of a less personal nature in that pertinent decisions are directed equally toward all men in our society, at least as far as those who can or will participate in outdoor recreation during some part of their leisure time are concerned. Examples of such decisions are actions taken by state and local governments to provide for outdoor recreation through participation in the Land and Water Conservation Fund program.¹

In ORRRC (Outdoor Recreation Resources Review Commission) Study Report 22, George D. Stoddard suggests that the "outdoors contributes markedly to three human needs."² First it offers a degree of reality that seems to give meaningful integration to the physical and abstract aspects of man's societal environment. Secondly the outdoors offers a sense of belonging with nature. Thirdly, a sense of belonging to one's society. Based on studies during the late 1950's and early 1960's, initiated under the authorization of the Outdoor Recreation Resources Review Commission, numerous conclusions were drawn relative to outdoor recreation.³ This

¹ Land and Water Conservation Fund Act of 1965 (78 Stat. 897).

² George D. Stoddard, The Merging Pattern of Outdoor Recreation and Education — Problems, Trends, and Implications, ORRRC Study Report 22 (Washington: U. S. Government Printing Office, January 1962), pp. 121-22.

³ Outdoor Recreation For America, Outdoor Recreation Resources Review Commission (Washington: U. S. Government Printing Office, 1962), pp. 3-5.

presentation is primarily concerned with two of these. First, outdoor recreation is a major leisure time activity and is growing in importance. Second, water is a focal point of outdoor recreation. This latter conclusion serves as the basis for this study in that the water resource of the basin under study is the principle attraction or element of basin recreation opportunity. The relationship of water and related lands and the impact that recreation demand has on them will be discussed later.

Given the fact that outdoor recreation holds some benefit or importance for man and his society, what are the implications of this? Outdoor recreation exists today and many experts have advised that demand for outdoor recreation will increase by three or more times by the turn of the century. This is likely the result of many variables in our dynamically changing civilization but usually the most measurable variables (as yet) are outlined as follows: increasing population, a 100 percent increase of U.S. population by 2000, over the 1960 figures; leisure time is increasing, some evidence is the expected halving of the workweek by the end of this century; urbanization is expected to continue to increase with 73 percent of U.S. population living in urban areas by 2000, compared to 63 percent in 1960; mobility of the growing population is also increasing, as indicated by projections for increased per capita domestic intercity travel.¹

River Basin Development and Recreation Today

The initial point of reference for social recognition of the implications

¹ Ibid. , pp. 30-31, 226 (Table 26).

river basin development holds for society with respect to outdoor recreation is the Coordination Act of 1934.¹ This Act provided for use of Bureau of Reclamation impoundments for wildlife purposes. It also provided for established fisheries by insuring migration of fish in connection with dams built by Federal agencies or under Federal permit. Although this Act primarily concerned fish and wildlife, the official sanction given to specific uses of a recreational nature of certain impoundments provides a basis for the growing importance of the implications surrounding reservoir development and related outdoor recreation.

All the Flood Control legislation has to be considered as basic and all-important in the history of river basin development. It was this societal protection form of legislation that gave recreation its first real foothold in basin-wide planning efforts. The Flood Control Act of 1944 authorized the U. S. Army Corps of Engineers to construct, maintain, and operate public park and recreation facilities on reservoirs under its control.² Now, nearly a quarter century later, river basin development can be justified partially on the basis of the recreation benefits such development can offer.³

The primary source of outdoor recreation potential in river basin development centers around man-made lakes or reservoirs. This highlights

¹Fish and Wildlife Coordination Act of 1934 (48 Stat. 401).

²Flood Control Act of 1944 (58 Stat. 887).

³Jack L. Knetsch, "Economics of Including Recreation as a Purpose of Water Resources Projects," Journal of Farm Economics, Vol. 46, No. 5 (December 1964), p. 1148.

the need to familiarize society with the importance of the implications that such development can have. At present, such implications are relatively unstudied. In a paper concerning reservoir recreation and economic growth, A. L. Moore of the National Planning Association stated, "More basic information will be needed in the future about the economics of recreation, both from the viewpoint of the consumer (the recreation seeker) and the supplier (the local communities)."¹

Assuming that river basin development and included reservoir recreation is a major source of recreation opportunity, it is logical to base future planning efforts on studies of similar types of development. Any given problem or circumstance might change from reservoir to reservoir or basin to basin but certain kinds of information and problems are common to basin planning and included recreational considerations. A few general problems have been outlined by Moore as follows: inadequateness of land use planning, zoning disinterest, a need for greater variety in tourist attractions, increased quality of existing facilities, more and better supply and demand studies, the adequateness of recreation revenue to guarantee government services in the area, fish and wildlife considerations and their effect on recreation potential, area use and resource use considerations, the study of demand for recreation with regard to number of participants and expenditures, general economic effect of recreation on the local economy and whether this relationship can be improved, problems facing concessionaires,

¹Arthur L. Moore, Reservoir Recreation and Local Economic Growth, ORRRC Study Report 24 (Washington: U. S. Government Printing Office, 1962), p. 157.

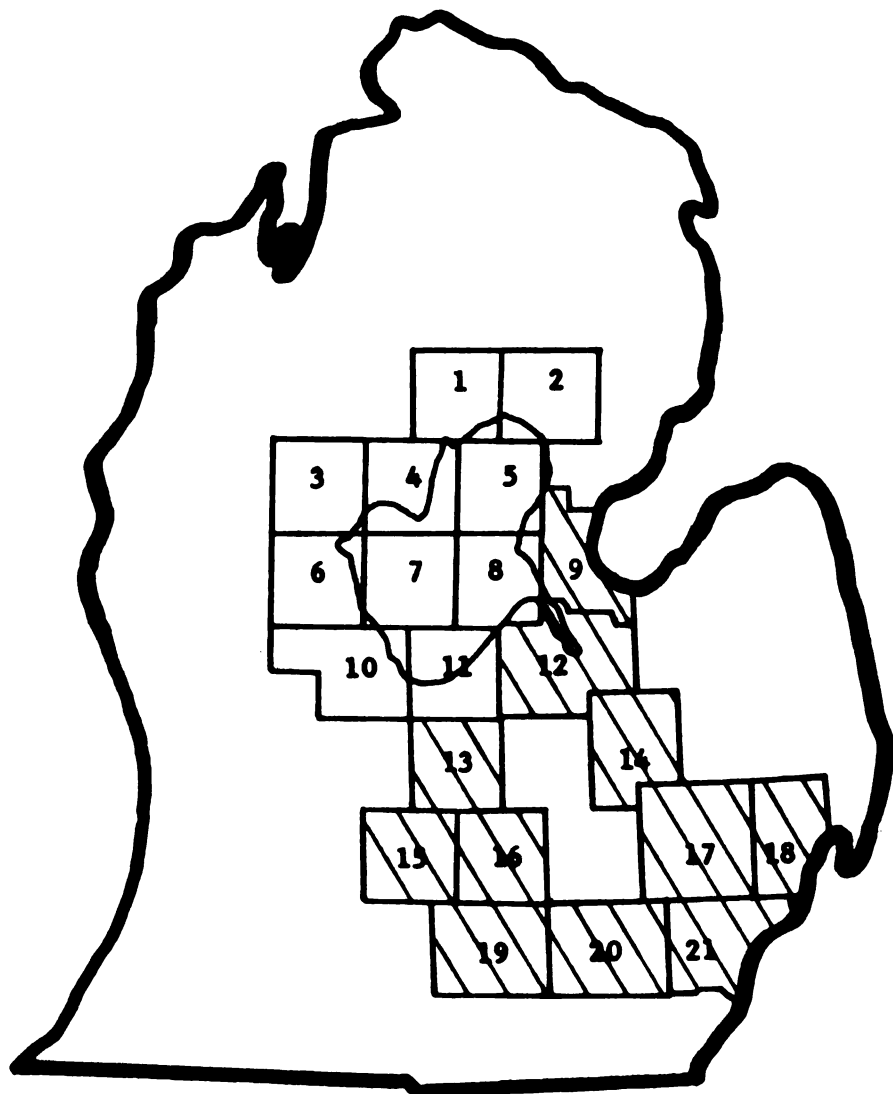
and the problem of getting correct statistics on the various aspects of interest to those people wanting to study certain types of problems such as those mentioned above.¹ Another major problem is discerning and outlining the roles and responsibilities of public and private interests in river basin recreational development.

Why is it important that such problems be solved or at least studied? Disregarding a few geologic catastrophies which may cause new natural water bodies, all new waters in the future will be man-made reservoirs or so-called artificial lakes. The fact of the importance of such bodies of water to recreation is no longer questioned. However, the parameters of this importance are unresolved, and research into related implications is needed to more fully understand the problems man must contend with in the future. This need will become more intense as the participating population increases causing a relative decrease in the supply of water and related lands available for recreation.

The Studied Area and Included Reservoir

The studied area is the Tittabawassee River basin, located in central Michigan, west of Saginaw Bay (see Map 1). The areal extent of this basin is approximately 2,620 square miles. All or parts of the following counties lie within the basin: Clare, Gladwin, Gratiot, Isabella, Mecosta, Midland, Montcalm, Ogemaw, Roscommon, and Saginaw. The length of this river system from headwaters to its confluence with the Saginaw River is about

¹Ibid., p. 158.



Standard Metropolitan Statistical Area Counties

- | | | |
|--------------|--------------|---------------|
| 1. Roscommon | 8. Midland | 15. Eaton |
| 2. Ogemaw | 9. Bay | 16. Ingham |
| 3. Osceola | 10. Montcalm | 17. Oakland |
| 4. Clare | 11. Gratiot | 18. Macomb |
| 5. Gladwin | 12. Saginaw | 19. Jackson |
| 6. Mecosta | 13. Clinton | 20. Washtenaw |
| 7. Isabella | 14. Genesee | 21. Wayne |

**Map 1. Tittabawassee River Basin:
Basin Counties and SMSA Counties**

86 miles. The included reservoir, studied in detail, is the 815-acre Secord Reservoir at Secord on the mainstem Tittabawassee River in Gladwin County. Although public access is available at this site, recreational development consists primarily of private cottages. The reservoir supports the standard forms of water-based recreation such as swimming, boating, waterskiing, and fishing. Adjacent lands support extensive type recreation activities such as driving for pleasure, sightseeing, nature walks, and hunting. Limited camping is available at nearby State facilities.

Objective and Scope

This thesis is intended as an examination of the significance of recreation-type small tract development around water bodies. In this study, the Tittabawassee River basin was examined in terms of outdoor recreation facilities and opportunities. A comparison of the three major sectors of recreation opportunity was desired. These sectors are: public areas, private commercial enterprises, and private cottages. Emphasis was placed on the exploration of the significance of private cottage development as it was felt that of the three sectors considered, research directed toward this sector is lagging behind the others.

Approach to the Study

The approach used in this thesis is basically a comparison of the significance of three sectors of outdoor recreation supply: public, private commercial, and private cottage, highlighting the relative importance of private cottage development in terms of the total outdoor recreation picture of the small river basin and its development.

In order that the social and economic aspects of recreational small tract development could be examined, a case study of Secord Reservoir was made which provided data for the formulation of several general conclusions concerning cottage communities and their residents.

This case study included a detailed questionnaire used in the sampling of numerous cottagers. It also included the examination of Secord Township Tax Rolls for the purpose of outlining the changes in land values and rate of small tract development.

CHAPTER II

THE ROLE OF PRIVATE COTTAGE DEVELOPMENT

Growing Importance of Private Cottage Development

For the purpose of this presentation private cottages are defined as private, non-commercial cottages intended for recreational purposes. How important are such housing units? How many are there? Do they contribute substantially to the total recreation opportunity and participation picture? Perhaps a more important question is, what implications does this type of recreational development have in terms of its various social and economic influences? The following text is intended to explore these questions.

On January 19, 1961, the Wall Street Journal reported an estimate of one million vacation homes built.¹ The following quotations are from the same report.

Many builders and realtors believe the budding second home market will have a significant impact on the U. S. economy in the years ahead. . . . A Commerce Department estimate of the number of private housing starts in 1960 indicates a decline of about 19 percent from the 1959 level, while the construction of second [vacation] homes is generally agreed to have accelerated. . . . A spokesman for the National Association of Home Builders estimates the number of second home starts rose from about 75,000 three years ago [1958] to 100,000 last year [1960].²

¹Ray R. Schrick, "Second Homes," Wall Street Journal, Vol. CLVII, No. 13 (January 19, 1961).

²Ibid.

However, by 1965 experts were estimating the total number of second or vacation homes at 3.5 million, or 5 percent of all housing units in the Nation.¹ If the rate of second home starts remained constant at the level reported for 1960 in the above quotation, by the year 2000 the number of vacation-second homes would total approximately 7 million (3.5 million in 1965 plus 100,000 per year for 35 years equals 7 million). Use of the constant rate of development indicates a decreasing demand in terms of consumer desires and does not allow for changing consumer preferences, but reflection on this topic leads to the consideration that consumers' preferences probably will change over a 35-year period with the resultant possibility that the ownership of vacation-type dwelling units will be even more desirable than at the present.

This provides a general introduction to the second or vacation home picture on a national basis. A better appreciation of the significance of this sector of recreation supply can be obtained by examining the results of existing research for specific areas of the Nation.

Some Economic Implications of Cottage Development

The MORRC (Minnesota Outdoor Recreation Resources Commission) Staff Report No. 4 indicates that in 1960 there were about 73,000 seasonal-vacation-second homes in Minnesota.² This constituted an increase of

¹Max Jordan and Lloyd Bender, An Economic Survey of the Ozark Region, Agricultural Economic Report No. 97 (Washington: U. S. Government Printing Office), p. 42.

²T. J. Enright and J. R. Borchert, A Study of Private Enterprise in Outdoor Recreation, MORRC Staff Report No. 4 (St. Paul: State Capitol, 1965), p. 11.

70 percent over the 1950 estimate. By 1975, the number of such homes is expected to reach 181,000, an increase of 150 percent over 1960.¹ This report also indicates that of those persons participating in some form of vacationing in the State, 12 percent made use of seasonal homes as compared to 29 percent for resorts and 15 percent for family and group camping. However, seasonal homes accounted for 42 percent of the total person-days of vacationing as compared to 22 percent for resorts and 9 percent for family and group camping.² These results suggest that as far as vacationing in Minnesota is concerned, seasonal homes or cottages offer more capacity than any other category considered.

A report out of the University of Wisconsin indicates that private cottages constitute a very important segment of the total recreation industry in terms of numbers of people involved and the expenditures related to cottages and their use. This report estimates that there were in excess of 55,000 private cottages in Wisconsin as of 1960.³ The contribution to the economy of the State is substantial. A reported \$75,000,000 was spent in Wisconsin during 1959 by cottage owners and their families.⁴ This amounts to approximately \$1,300 per cottage each year and is generally comparable to similar figures from other areas of the Nation. The inclusion of guest

¹Ibid., p. 12.

²Ibid., p. 8.

³I. V. Fine and E. E. Werner, Private Cottages in Wisconsin, Wisconsin Vacation-Recreation Papers, Vol. I, No. 4 (Madison: Bureau of Business Research and Service, School of Commerce, University of Wisconsin, 1960), p. 1.

⁴Ibid., p. 8.

expenditures would increase this figure additionally. Another important consideration is investment expenditures for the cottages and necessary real estate. The report suggests that in 1960 there was approximately \$500,000,000 invested in private cottages in Wisconsin.¹ This amounts to \$9,090 per cottage.

Similar research on the private cottage sector of outdoor recreation supply has not yet been accomplished for Michigan. However, data from the Census of Housing, 1960, indicates the existence of possibly as many as 157,000 private cottages in Michigan as of 1960.² Using the \$1,300, reported by Fine, as a measure of the annual expenditure for the use of an average Michigan cottage, total cottager expenditures might have amounted to over \$200,000,000 in 1960. If the \$9,000 figure for investment per each Wisconsin cottage is used as an indicator of the Michigan situation, the total investment in Michigan would amount to approximately \$1,410,000,000. An investment of this size (for 157,000 cottages at \$9,000 each) would equal one half of the estimated total value of Michigan farmland and buildings in 1960 as reported by the Economic Research Service, July 1966.³ This suggests the substantial importance of the private cottage sector on Michigan's recreation economy.

¹Ibid., p. 10.

²This constitutes the total of all rural, nonfarm, part-time vacant housing units in two categories: held for occasional use, and seasonal. Source: Census of Population, 1960, Michigan (Washington: U. S. Government Printing Office), Table 31.

³Farm Real Estate Market Developments (Washington: Economic Research Service, U. S. Department of Agriculture, July 1966, Table 7, p. 17.

In addition to the day-to-day subsistence expenditures and property investment expenditures, there is another important consideration, namely, the contribution of cottage owners to the tax base of local governments through payment of property taxes. A detailed study of the values from recreational land use in Ogemaw County, on the northern edge of the Tittabawassee River basin, was reported on in 1954.¹ Findings indicated that the principal effect that recreation (private cottages) has upon property values is to increase tax assessments on lands otherwise having low valuations to a level where they are among the highest in the county. Thus cottage development results in increased real estate tax payments. In 1950, all recreational lands in Ogemaw County provided approximately 27 percent of the \$192,102 of revenue from general property taxes and returns from public land holdings. All revenue provided by such recreation lands cannot be attributed to recreation. If the land was not developed, it most likely would be or revert to wildland and as such (excluding the possibilities of development) would probably be held in public ownership. As public land it would bring in a certain amount of revenue for the county. In 1950 this was 10 cents per acre for state land and for federal land, 25 percent of the income produced by such land. If the wildland remained in private ownership, the difference between its relatively low income without recreational development and its higher income with development would be the value added attributable to recreational development.

¹Ross N. Pearson, Some Values from Recreational Land Use in Ogemaw County, Michigan, Papers of the Michigan Academy of Science, Arts and Letters, Vol. XL, 1955, pp. 217-27.

What does this mean in terms of state revenue? The significance of cottage or seasonal recreation properties is shown by the situations as reported in Maine and New Hampshire. A 1959 report from the State of Maine indicates that seasonal cottage residents contribute about 5.8 percent of the total property tax for the State.¹ Investigations in New Hampshire resulted in a similar finding in 1964 — 5.6 percent of total local property tax collections are obtained from cottage-type property owners.²

Some Social Implications of Cottage Development

The economics of private development, that is, the contributions made to local governments through taxes, investment expenditures, and subsistence expenditures, are major considerations in determining and examining the role of private development in recreation and small river basin planning. However, another aspect of private development is deserving of special notice, namely, the social implications of recreational development of this nature. Unfortunately, the attention necessary to give this aspect the consideration it warrants is beyond the intended scope of this presentation. Provision is made for a general examination of some of the more pertinent, not necessarily more important, implications related to private cottage development.

¹Recreation Property Inventory (Augusta, Maine: Division of Research and Planning, Department of Economic Development, State House, July 1960).

²Economic Impact of Recreation, Vacation, and Travel on New Hampshire (Concord: New Hampshire State Planning Project, July 1965), p. 60.

This paper will not present detailed findings of social values of cottage ownership, as these values are rather undefined and mysterious in nature. To be sure, there are values for the family relationship. There are also personal values to be gained from experiencing recreation in one's own residence. Perhaps at some future date completed research will show the extent of social benefit to be derived by private recreation development. At this point in time, benefits and values of a non-economic nature can be identified to some extent, but cannot be measured. There are many questions to be answered and many areas of concern to be explored with regard to private cottage development; the influence and effects such action has on the physical character of the development area, along with the influence and effects on the social environs of the developed areas. For instance, how many families own a private vacation cottage or home? How many more actually desire such a dwelling unit? What social or personal values cause these units to be so desirable? It is assumed that to some extent the growing number of such units is related to the increasing demand for outdoor recreation opportunity. Perhaps owners of private units are attempting to insure that they and their families will have all such opportunity that they desire. If this is the case, the social implications of recreational investment are greater than existing types of research are revealing. In this respect, are cottage owners satisfied? Are their goals achieved? Do owners wish to have more to say in matters of additional development in the area of their investment? Are their dislikes resolvable?

What social problems generally arise in cottage areas? What does the future hold for private cottage developments?

Implications of the Investment Decision

What causes land values relative to recreation? What is the relationship of recreational goals and land values? Which outweighs the other and when? Generally, what does private cottage recreation offer? What does it cost?

To begin with, land value is a measure of the degree of need by man for a particular parcel of real estate, tempered by lawful respect of existing property rights. There are two general types of characteristics which create such values.¹ The first type is the physical or on-site nature of the land. This includes such things as topography, soils, drainage, and vegetation. These, to some extent, are subject to man's dominion and can be adapted or modified to correspond to his ideas and needs. The second type consists of the locational character of the land; for example, the distance to other points from the point of reference (cottage). Other locational factors closely related to on-site aspects are the relatively unalterable natural resources such as forests, mountains, natural water areas, general outdoor environment, and even atmospheric conditions.

The ability of the above mentioned resources to satisfy man's need for recreational expression through an investment decision in favor of a

¹William H. Scofield, "Values and Competition for Land," A Place to Live, 1963 Yearbook of Agriculture (Washington: U. S. Government Printing Office, 1963), p. 65.

vacation home is assumed to have much influence in determining the value of the land resource to man. Related to this idea of area resource quality expressed above are those intentions for which man will purchase recreational property. An investment of this nature must offer considerable certainty that individual goals and objectives will be met.

As to which is more important, goals or land values, a strictly personal judgment is concerned. On the investor's part, they can be equated until that point is reached in his own decision-making process, where he cannot afford to assume the burden of cost necessary to enable him to consummate a desirable transaction. Whereupon, land values become the determining factor.

As for the question, what does private cottage recreation offer? Harper and others have stated "it is important to remember that the urbanite leaving the city is trying to leave only the discomforts of city life, not necessarily the comforts."¹ This type of development offers the amenities of one's home in a recreational setting. It offers guaranteed recreation opportunity for those choosing to invest. Perhaps the quality of the recreation experiences derived from participation in various activities won't be comparable to similar types of experiences available at recreation areas with special enhancement for such activities, but the investment decision weighs this against the overall goals and objectives of private cottage ownership.

¹R. A. Harper et al., "Recreation Based Economic Development and the Growth-Point Concept," Journal of Land Economics, Vol. 42, No. 1 (February 1966), 95-101.

Marion Clawson has proposed five phases of outdoor recreation which contribute to the overall personal enjoyment of participation. These are: (1) anticipation and planning, (2) travel to the outdoor recreation area, (3) on-site experience, (4) travel back from the area, and (5) recollection.¹ All these phases are thought to have much influence on the values derived from participation. In the case of private cottage development and ownership, some of these phases take on varying degrees of importance. With the purchase of a homesite, the effects of the travel and perhaps even the planning phases may be reduced or eliminated. The values derived from travel may be reduced because the main objective may have changed from one recreational in nature to one of hurrying to reach one's vacation home as soon as possible, as the recreational aspects of the trip will not begin until the destination is reached. After repeated journeys over the same route, travel time is apt to become rather dull or boring. It also is possible that the planning phase is reduced or minimized to some extent by having the vacation home stocked with the many essentials necessary for home living in a recreational environment. Also some restrictions may be influencing the owner of such a homesite with regard to his anticipation and planning, in a negative manner, because of the natural limitations of the area. That is, the resource endowment characteristics of the area may have some restricting influence on the extent of recreation possibilities.

¹ Marion Clawson, Nature of the Outdoor Recreation Experience, ORRRC Study Report No. 24 (Washington: U. S. Government Printing Office, 1962), pp. 75-76.

These same restrictions and limitations could also be the very reasons an area appeals to some particular cottage owner. Given these conditions, perhaps only three of the five outdoor recreation phases remain. These are anticipation, on-site experience, and recollection. Anticipation has been separated from planning in the first phase on the assumption that planning may become a matter of course for cottage owners while anticipation is of such a personal nature that this may become more important for such owners. That is, the importance of anticipation is related to the many implications of the original investment decision. The possible reduction in scope of Clawson's outdoor recreation phases does not necessarily reduce the value of recreation to such owners and may, in fact, tend to increase recreational values relative to one's investment.

Concluding Remarks

Because the lots are so small these subdivisions have the same problems as have the cities in regard to health, sanitation, and crowding, yet people are expecting to find fresh air, sunlight, healthful waters, and unpolluted bathing beaches in their vacation country.¹

This is from a report by Wehrwein and Parsons dealing with recreation land use patterns and more specifically, lakeshore developments. It was written in 1932, but may have even greater meaning and significance in today's world as well as in the future. As mentioned previously, little social research is being carried on with regard to this particular segment of the

¹George S. Wehreïn and K. L. Parsons, Recreation as a Land Use (Madison: Agricultural Experiment Station, University of Wisconsin, April 1932).

recreation picture although some economic research has been completed. The importance of this phase of recreational development, through its economic contribution and its social implications, warrants much more study than it has received to date. Some inferences and conclusions along this line will be presented in a following chapter discussing the results of surveys in the area of Secord Reservoir in Gladwin County.

CHAPTER III

OUTDOOR RECREATION AND THE TITTABAWASSEE RIVER BASIN

Introduction

The Tittabawassee River basin is not a tourist mecca. Of the 11 counties comprising the basin only two, Roscommon and Clare, were found to be primary destinations of significant numbers of tourists in a study conducted by Central Michigan University in 1964.¹ The primary destinations attributed to Roscommon and Clare counties accounted for 4.5 percent and 0.72 percent, respectively, of the 6,872 tourist parties interviewed in the summer of 1964. Although Roscommon County received the highest number of responses in the State, only a small (16 percent) portion of the county is located within the basin. Additionally, the location of Houghton and Higgins lakes and Higgins Lake State Park outside the basin suggests that most of the tourist activity indicated by the study was associated with these resource-oriented areas rather than anything in the Tittabawassee basin portion of the county. This recorded lack of tourist activity in conjunction with the general absence of both intermediate and resource-oriented recreation areas seems to indicate something significant about the basin in terms of outdoor recreation. Possibly the

¹Michigan Tourism, Vol. 1 (Mount Pleasant: Center for Economic Expansion and Technical Assistance, Central Michigan University, 1965), p. 50.

basin is not endowed with the types or amounts of resources necessary to warrant the establishment of resource-oriented recreation areas by the responsible public agencies. Possibly the populations concentrated around the Saginaw Bay area found satisfaction of intermediate recreation area needs beyond the basin boundaries in the regions enhanced by numerous natural lakes.

Locational Implications

Historically the upper and northern lower peninsula of Michigan have been popular resort and vacation regions. Major transportation routes to these areas pass through the Tittabawassee River basin, situated in the southern margin of the northern lower peninsula. This particular basin has little in the way of outstanding resource endowment characteristics. However, the nature of the river system and its influence on the landscape provided suitable sites and situations for several reservoir developments. The locational aspects become important when consideration is given to the distribution of population in regions of Michigan to the south.

Population

Nine SMSA's (Standard Metropolitan Statistical Areas) lie within a 125 mile radius to the south of the basin. The estimated population of these areas totaled about 5.3 million people in 1965, including the Detroit Metropolitan Area.¹ This information is quite significant in that it illustrates

¹County Population Projections, 1960 to 1980, Michigan Outdoor Recreation Plan, Michigan Department of Conservation.

the fact that a large urban population is located within easy driving distance of the Tittabawassee River Basin. The 125 mile distance is important in that studies have shown that this is the maximum desired one way driving distance for recreationally oriented trips requiring more than one day but less time than a major vacation.¹

Perhaps this had some influence on the private development of recreational opportunities at the reservoirs of the basin. That is, the participating populations to the south did not desire to travel farther than about 125 miles to partake in weekend outdoor recreation activities. With the construction of impoundments for power generation came more opportunity to guarantee certain kinds of water related recreational activities through investing in private cottages thus satisfying personal and family desires in terms of outdoor recreation.

Access

Access is an important locational factor influencing a region's recreational development. Given the impounded waters in an area possessing few unique resource conditions or situations other than the several suitable hydroelectric power generation sites, the development of recreational opportunity was dependent on suitable transportation routes and the travel-time factor as related to distance and adequacy of transportation routes.

¹National Recreation Survey, ORRRC Study Report 19 (Washington: U. S. Government Printing Office, 1962), Table 5.42 and p. 60. These findings correspond to the findings of the California Outdoor Recreation Committee who originally derived the 125 mile figure for trip-type recreation excursions.

The basin is well supplied with major four-lane highways and adequate secondary paved routes; however this is not to say that the highways are adequate for use received but only refers to their existence as access to the basin from the populous regions of the State to the south (see Map 1). Interstate 75 bisects the middle portion of the basin in a northwest to southeast direction until joining with U.S. 27 at Clare. This latter route extends through the basin in a north-south direction. It might serve the more urban population in the Lansing and Jackson SMSA's to the south. Interstate 75 would probably serve the population concentrations in southeastern Michigan, in and around the Detroit Metropolitan Area. U.S. 23, following the Saginaw Bay shoreline, would also be instrumental in providing access for people to the general vicinity of the basin and included reservoir complex. In the past, highways U.S. 10, U.S. 23, and U.S. 27 served the needs of travelers through and to the basin.

History of Water Resource Development

Hydroelectric power development is one of the major nonconsumptive water uses in the studied basin. Such development in this basin, reached its peak in the second and third decades of this century.¹ Four hydroelectric power developments were constructed on the mainstem Tittabawassee River, all during this period: Secord, Smallwood, and Edenville in Gladwin County and Sanford in Midland County. Due to the nature of water resource

¹Water Resource Conditions and Uses in the Tittabawassee River Basin (Lansing: Water Resources Commission, State of Michigan, 1960), p. 77.

endowment in this basin (natural lakes of similar sizes weren't in existence) the building of these reservoirs, all in 1925, may have served as a stimulant to private investment and for land speculation which would have considerable impact on the recreation picture of this basin in the future as cottage development progressed.

Historically, the power companies acquired title to needed lands on both sides of the river in the reservoir areas. After determining a specific elevation which would insure flowage rights, surrounding land was offered for sale and thus the way was opened to private development when the demand situation warranted. Those first seasonal residences built were probably for the traditional purposes of hunting, fishing, and nature enjoyment, as compared to the more active types of outdoor recreation activities popular in the basin at present. An assumption might be made to the effect that cottage development increased with and as a result of increasing demand for outdoor recreation opportunities, specifically for those water based activities which have been of growing importance in recent years — swimming, boating, and waterskiing.

Demand and Supply Considerations

This section is an attempt to illustrate the capacity of the Tittabawassee River basin to satisfy some portion of existing recreation demand by means of its provision of outdoor recreation opportunity. The ambiguous nature of outdoor recreation demand makes it necessary to assign relative values to a rather hazily defined but real phenomenon in order to have a base from

which qualified observations of recreation demand might be made. The 1960 National Recreation Survey (ORRRC Study Report 19) provides the basic data for demand estimates (projections of use). Such estimates are based on a person taking part in outdoor recreation activities a certain number of occasions during one year (or season). Studies under the sponsorship of the ORRRC have determined the participation rates for 24 selected outdoor recreation activities. These participation rates have been determined by census region for the entire nation. To provide the needed standards of comparison or base of reality, the annual participation rates for the North Central census region are assumed applicable to the State of Michigan and similarly to the Tittabawassee River basin.

In reality such figures may not be applicable to areas other than the region itself without considerable study and adjustment. Consider the following:

The multivariate analyses of data from SRC [Survey Research Center — ORRRC Study Report 20] and NRS [National Recreation Survey — ORRRC Study Report 19] are particularly useful for purposes of determining and evaluating the underlying factors which shape and structure demand for outdoor recreation. Although socio-economic factors were found significantly related to participation, these analyses did not explain particularly large proportions of the variances. This suggests that additional related factors remain to be determined, measured, and entered into such formulations.¹

The scope of this paper does not allow for such considerations to be

¹Betty C. Churchill, Prospective Demand for Outdoor Recreation, ORRRC Study Report 26 (Washington: U. S. Government Printing Office, 1962), p. 37.

made. Thus the regional participation rates will be deemed adequate for application to the State of Michigan. There is some logical justification for proceeding in this manner. Regional demand is computed by multiplying participation rates by population. Holding participation rates constant, the same result could be achieved by summing the results of similar computations for each state in the region. That is, population would vary with each state but the constant participation rates would allow the sum of the parts (states) to equal the whole (region).

Assumptions

The first basic assumption is explained above but will be restated at this time; regional participation rates are applicable to smaller areas such as a state and river basin. The second assumption is that these rates did at least hold constant through year 1965. This does not allow for a shift in demand due to changing consumer preferences. A third assumption is that certain definitions presently used by the Bureau of Outdoor Recreation are adequate and applicable to this study. A fourth assumption is that private cottage ownership will provide recreation opportunities similar in nature to those provided at water-oriented public areas and also private commercial enterprises. A fifth assumption states that for the purposes of this study, the State of Michigan will be considered as a closed system in terms of recreation mobility.

Limits of Consideration

This analysis of outdoor recreation demand will consider the overall

or total potential demand for 24 outdoor activities which will in turn be broken down into the demand for ten activities related to or enhanced by the presence of recreation water. The ten water related or enhanced activities are probably the most important in terms of the investment costs involved in supplying the necessary facilities for the opportunity regardless of whether it is a public works project, private enterprise, or private cottage. These ten activities are also of primary concern to federal agencies evaluating the benefits and costs of recreation facilities at public works projects. Eight are considered in Bureau of Outdoor Recreation studies; swimming, boating, waterskiing, picnicking, camping, sightseeing, nature walks, and hiking. Two activities are included in Bureau of Sport Fisheries and Wildlife studies; fishing and hunting.

The major sources of information used in this study, the Public Areas Recreation Inventory and the NACD Inventory of Private Commercial Outdoor Recreation Enterprises, provide general data on all ten activities.

Definitions

Recreation Demand is a measurement of the amount and kinds of outdoor recreation opportunities or facilities which the public desires.

A Recreation Day is equal to a visit by one individual to a recreation development or area for recreation purposes during any reasonable portion or all of a 24-hour period. One recreation day equals 2.5 activity days.

An Activity Day consists of participation by an individual in any one activity during any part of a 24-hour period.

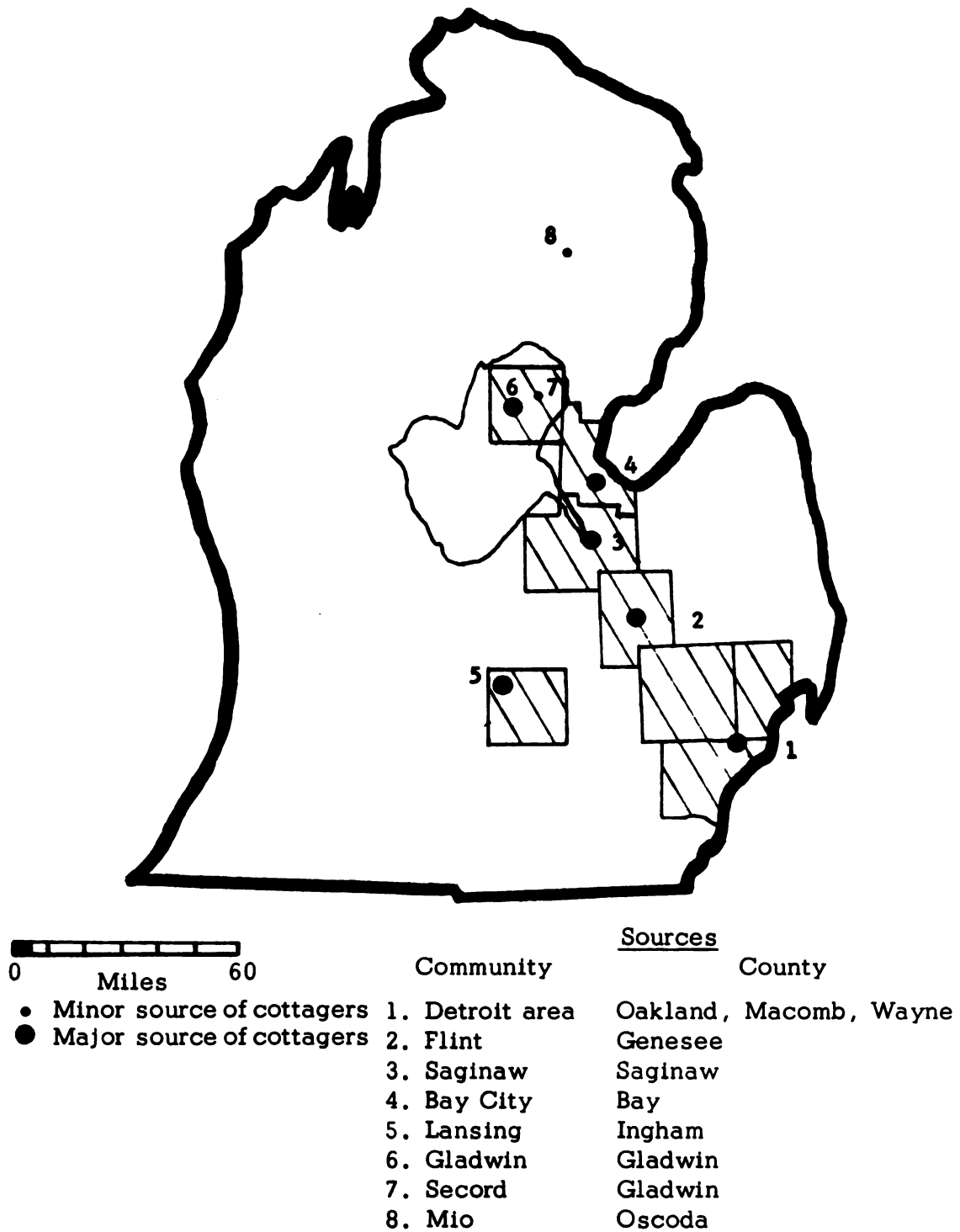
A Person Day consists of one day visit by an individual to a private cottage. For the purpose of this paper one person day equals one recreation day.

The Demand Situation¹

Theoretically and relatively speaking, Michigan had in 1965 an outdoor recreation demand of 509,600,000 activity days. Of this immense total, 64.5 percent (329,000,000 activity days) was generated by the nine SMSA's in southern Michigan, within a 125 mile radius of the center of the Tittabawassee River basin. Nearly 30.8 percent (101,430,000 activity days) of the total SMSA generated demand could be attributed to the ten water enhanced and water related activities; swimming, boating, water-skiing, picnicking, camping, sightseeing, nature walks, hiking, hunting, and fishing.

The recreation service areas, for other than just day trip recreation activities, extending outward from the SMSA populations in southern Michigan include the Tittabawassee River basin. This in conjunction with the residence locations of Second cottagers (see Map 2) seems to indicate that the basin would be well located in terms of satisfying outdoor recreation demand if the combination of resource endowment and recreation opportunity was favorable. In support of this contention is the fact that Roscommon County, which includes an upper portion of the basin, was found to be the primary destination of more tourists interviewed during the Central Michigan

¹ See methodology in the Appendix.



Map 2. Residence Locations of Secord Cottagers

University survey than any other Michigan county during the summer of 1964.¹

The Tittabawassee River basin itself must be attributed with some 27,790,000 activity days of recreation demand. About 8,540,000 of these should be associated with the ten water enhanced and water related activities.

The Supply Situation

Public Areas

There are 12 public recreation areas within the boundaries of the Tittabawassee River basin. Two are of the state park type, four county park types, three lake access sites, one state game area, and one state forest. An estimated 392,210 visitors used the facilities during the 1963-64 season.² Converting this to activity days, the demand satisfied amounted to about 980,500 activity days.³ Of all the facilities provided at these 11 areas, the first three major activities were nearly always three of the ten water related or enhanced activities.

Over 62,000 acres of land were included in the public recreation areas as of 1964. However, more than 60,000 acres were included in state forest and game areas. Only some 680 acres of land were contained in the more user-oriented areas. The total acreage developed specifically for the ten

¹Michigan Tourism, loc. cit.

²See Appendix B, Table 1.

³One counted visitor equals one recreation day which in turn equals 2.5 activity days.

water associated activities was 181 acres. Another 48 acres were programmed for development in the 5-year period following the 1963-64 season.

Private Areas

Nine Tittabawassee River basin counties contain some 17,200 acres of recreation land controlled by private outdoor recreation enterprises. Approximately 600 acres of recreation water are located on these lands. In addition, access is provided to non-private water in three of the counties. Again this data applies only to those ten outdoor recreation activities defined earlier. Additional land and recreation opportunities are provided by enterprises catering to other forms of recreation and outdoor activity, but for the purposes and intent of this presentation consideration of all other activities is excluded.

Those enterprises considered had the capacity to support a total of 180,000 visitors during the period of a year.¹ Translating this to activity days, the supply becomes 450,000 activity days, only 46 percent of the supply offered by public areas.

Private Cottages

Census of Housing data for 1960 indicates the existence of some 22,456 rural, nonfarm housing units in the counties of the studied basin which are not permanently occupied and may generally be regarded as second homes or vacation cottages.² As this estimate pertains to 1960.

¹ See methodology in the appendix.

² Estimated number of second homes in the Tittabawassee River basin.

it is thought that an updated figure would be somewhat larger if an accurate count of second homes existed for 1965. However, for the purposes of this paper it has been assumed that there are 22,000 second homes within the basin counties. This number of housing units could possibly provide about 7,920,000 activity days of recreation opportunity. This is assuming that each cottager family has 3.6 members and they use the cottage 40 days per year. These person-days have been set equal to recreation days which are multiplied by 2.5 to figure activity days ($3.6 \times 40 \times 22,000 \times 2.5 = \text{activity days}$).

Some Economic Implications

How does the Tittabawassee River basin contribute to the estimated \$1 billion expenditure for tourism and recreation in Michigan?¹ In 1953, W. R. Brueckheimer described a method for approximating the percentage of retail sales collections attributable to recreation associated spending.² Table 1 presents the results of this method as applied to the counties of the Tittabawassee River basin.³

The table shows that in general the non-urban, non-agricultural counties of Clare, Gladwin, Ogemaw, Osceola, and Roscommon, have a high proportion of part-time vacant dwelling units which are assumed to be recreational

¹"The Michigan Tourist Industry," Michigan Economic Record, Vol. 7, No. 5 (East Lansing: Bureau of Business and Economic Research, Michigan State University, June 5, 1965).

²William R. Brueckheimer, "The Significance of the Recreation Industry in Alger County, Michigan" (unpublished Ph.D. dissertation, Department of Geography, University of Michigan, 1953), p. 81.

³See methodology in the appendix.

Table 1. Recreational Housing (1960) and Retail Sales Tax Collections (1965), Tittabawassee River Basin Counties

County	Housing Units ¹		Retail Sales Tax ³	
	Total	1960 Recreation ²	Total	1965 Recreation
			\$	%
Clare	7,585	4,163	857,356	16.18
Gladwin	5,966	3,163	536,339	16.66
Gratiot	3,785	265	2,402,670	-2.47
Isabella	4,379	582	1,872,323	1.81
Mecosta	4,518	1,836	1,093,349	3.56
Midland	5,918	551	3,226,307	2.09
Montcalm	9,210	2,500	2,210,345	1.19
Ogemaw	5,105	2,690	598,792	17.00
Osceola	4,392	1,000	620,591	11.25
Roscommon	7,985	5,366	747,897	41.22
Saginaw	<u>12,895</u>	<u>340</u>	<u>14,025,999</u>	-2.48
Basin Total	71,738	22,456	28,182,015	0.21

¹Table 31, Census of Housing, Michigan, 1960: rural, nonfarm housing units.

²Two categories, Held for Occasional Use and Seasonal, are totaled to form this column.

³Research and Statistical Bulletin (Lansing: Michigan Department of Revenue, December 1964 through November 1965).

in nature, as compared to the total number of rural, nonfarm housing units. These same counties also have the highest percentages of retail sales attributable to recreation spending. These percentages were derived through comparisons of county retail sales with state retail sales. Although the five counties named above have relatively high percentages the basin as a whole shows a net recreation effect of only 0.21 percent. A look at total retail sales by county shows that the majority of the retail sales for the basin comes from the relatively stable agricultural, business, and industrial economies of the southern portion of the basin. The absence of tourism

in general as indicated by the Central Michigan University study except as noted for Roscommon County, and the absence of resource-oriented, user-oriented, and intermediate recreation areas in the basin counties seems to imply that perhaps the cottagers are major sources of the recreation expenditures as measured above.

Summary

The Tittabawassee River Basin is located within easy access to a large urban population in southeastern Michigan. The travel-time distance from the most distant SMSA's in southern Michigan places the basin in an ideal situation in terms of overnight or weekend recreational trips. This analysis dealt mainly with the demand generated by this large urban segment of state population. Demand (projections of use) was considered only to indicate its general magnitude. Discussion with various representatives of the Huron-Clinton Metropolitan Authority concerning future visitation problems at their recreation areas lends credence to the assumption that this huge southern Michigan demand is far from satisfied.

As far as this author is concerned, an absolute measure of recreation demand is not feasible at the present. However, the situation is different with recreation supply. Visitors, campsites, picnic tables, boats and cottages can be counted, adding realism to supply inventories or estimates.

Present indications are that second homes or cottages are the most important contributors to the outdoor recreation supply in the Tittabawassee River basin. The recreation supply offered by the public and private sectors

amounts to some 1,430,300 activity days or 18.1 percent of all the supply offered by second or vacation homes. The total supply of both private and public sectors is approximately 9,350,500 activity days. According to these results the basin supply of water-related and enhanced outdoor recreation opportunity is far less than the corresponding potential basin demand alone plus some undetermined portion of that demand generated by the SMSA populations to the southeast.

Thus it might logically be assumed that this basin lies within the influence of some considerable amount of recreation demand but that the public and private enterprise sectors do offer substantially less recreation opportunity than do the private cottages or second homes in the basin. What do these results imply?

These results, in conjunction with the results of the retail sales tax collections analysis, seem to indicate that seasonal or second homes may add significantly to the economy of basin counties -- especially those counties having little in terms of substantial economic bases.

CHAPTER IV

THE SECORD RESERVOIR STUDY

Introduction

The objective of this presentation is not to investigate all the aspects of community development or to judge whether existing development is in accord with the limitations or restrictions inherent in the area's resource endowment. Nor is it to determine if existing development meets some acceptable standards applicable to the type of development which has occurred. Emphasis has not been applied to finding the "WHY" behind the nature of existing development but has been placed on describing cottagers in terms of their recreation objectives and their relationship with the recreation area of their choice.

This chapter is intended as a detailed study of a particular reservoir area in terms of several social and economic implications of private cottage development, some of which were discussed generally in preceding chapters. The social topics discussed include cottage owners' ages, major problems, future plans, and personal desires, among others. Some of the economic aspects of cottage development which are discussed in this chapter are cottager expenditures, the growth of assessed valuations, and the rate of cottage development. The information presented in this chapter was gathered from a landowner survey at the reservoir, a survey of tax roll data, and

interpretation and application of findings of other studies related to the economics of cottage development.

The Secord Reservoir Area

Secord Reservoir consists of approximately 815 acres of surface water formed by the impounding of the mainstem Tittabawassee River just below the confluences of two tributary branches, the north and west branches of the Tittabawassee River. The impoundment is located in Secord Township, Gladwin County. The reservoir provides a rural, water-based focal point for recreational dwelling development. The immediate area around the reservoir is characterized by second growth mixed hardwoods with scattered concentrations of various coniferous species. This wooded environment enhances the RURAL-WOODLAND concept often associated with and desired in lakeside living and vacationing.

Secord Reservoir is located in an area characterized by poorly drained sands and organic soils. They are of low value for agriculture and they also have characteristics which might be limiting or at the least might present problems to orderly and adequate development of recreational dwelling communities. A main problem associated with such development is sanitary sewage disposal. Over time, area soils could cause or contribute to the cause of water quality problems as development and use increase. In addition, exposure of area soils in conjunction with land development and surface water use have combined to cause another water quality problem that will likely influence the aquatic eco-system existing in the reservoir. The

siltation of weed and spawning beds is a problem presently, and is speeded by the increasing use, by boating enthusiasts, of relatively narrow stretches of surface water causing severe bank erosion in many instances.

The dominant existing pattern of recreational housing at this reservoir consists of lakeshore lots. Land off the waterfront has been platted in a few instances but large scale development of such lands has not occurred. The assumption is that the market situation is such that consumer preferences for waterfront lots can be satisfied. Data regarding several questions concerning additional land and cottage development are contained in this chapter.

Sample

The interview survey covered sections 9, 10, and 15 of Secord Township. By 1964 at the time the survey was made, 153 housing units were located in these sections. The field survey resulted in a sampling of 20 percent of these cottages. In the survey of Secord development, section 3 was examined in addition to sections 9, 10, and 15. The reason for choosing these four sections is that most of the existing development is located in these sections which also include the major portion of Secord Reservoir proper.

The universe consisted of all housing units around the reservoir. Because of survey objectives and the nature of the reservoir, that is, the rather long narrow upper reaches, systematic selection was the sampling method used with the stratum selected consisting of the waterfront properties in sections 9, 10, and 15. The population was predetermined due to the

decision to interview only every third housing unit. This should have resulted in a 33 percent sample. Non-responses and absences reduced the sample to 20 percent, or 31 of 153 housing units.

Survey Objectives

The primary objective of the questionnaire survey taken around Secord Reservoir was to gather first hand and detailed information about the occupants of cottages and other housing units at the reservoir site which would allow the formulation of general conclusions and implications concerning reservoir users at the reservoir and in the basin in general. Such implications and conclusions are intended only as examples of what the significance of private cottage development might be, not necessarily as statements depicting conditions as they actually exist.

Areas of Inquiry

The questionnaire used in the field survey at Secord Reservoir was designed to elicit information about the following areas of concern:

1. Property ownership, length of stay, and type of accommodations.
2. Characteristics of respondent and family.
3. Secord cottage recreation opportunity.
4. Expenditures of Secord cottagers.
5. Vacation characteristics of Secord cottagers.
6. Desirability of new recreational attractions in the Secord area.
7. Increasing the attractability of the Secord area.
8. Conflicts of interests among recreationalists in the Secord area.

9. Properties and plans of Secord cottagers.
10. Examination of selected problems in the Secord area.
11. Respondents' views on additional land development in the Secord area.
12. Respondents' opinions on building restrictions, property owners' organization, and tax services in the Secord area.

In the following sections, survey findings for each area of inquiry are presented in tabular form followed by a discussion of the implications of these findings.

Property Ownership, Length, and Place of Stay

This area of inquiry is comprised of Questions 1, 2, and 3. These questions were intended to provide data on property ownership, potential owners, length of stay during the present visit and the type of accommodations used during this visit.

Property Ownership

The first question asked whether the respondent owned property in the Secord area.

Table 2. Ownership Status of
Respondents, Secord Reservoir, 1964

Owner	Percent of Respondents
Yes	97
No	<u>3</u>
Total	100

Length of Stay

Question 2 inquired as to the present length of stay at the time of the interview. All respondents were staying in the area for longer than one day. The results of this inquiry should be similar to the responses to Question 8 concerning usual length of stay.

Table 3. Present Length of Stay,
Secord Reservoir, 1964

Length of Stay	Percent of Respondents
1 day	3.2
2 days	22.6
3-7 days	22.6
All summer	9.7
Permanent	16.1
Not applicable	<u>25.8</u>
Total	100.0

Place of Stay

The third question inquired as to the type of accommodations the respondent was using during his present visit.

Table 4. Accommodations used by
Respondents, Secord Reservoir, 1964

Accommodations	Percent of Respondents
Own cabin	90.3
Mobile home	6.5
Renting	0.0
Visiting	<u>3.2</u>
Total	100.0

Survey results indicate that privately owned cabins are the major type of housing unit in the reservoir area. Rental cabins, on a commercial basis, are not available. The remaining type of housing unit, mobile homes, are generally governed by deed restrictions and cannot be considered permanent in nature.

The relative position of private cottage development has not been examined in other parts of the basin, however with most of the basin being essentially equal in accessibility by the millions of people in southeastern and southcentral Michigan, it is possible that the situation existing at Secord Reservoir, the dominance of private cottages over other types of accommodations, may exist throughout the basin.

Characteristics of Respondent and Family

This area of inquiry provides information useful in delineating the market area for Secord cottages and also examines the structure of certain social characteristics of respondents and their families including employment and family members by number.

Place of Residence

Question 4 asked the location of the respondent's permanent place of residence by place and distance. This data defines the market area for Secord cottages.

Table 5. Distance to Permanent Residence,
Secord Reservoir, 1964

Distance in Miles	Percent of Respondents
On site	16.1
Less than 50	6.4
50-100	35.5
101-150	25.8
Over 150	12.9
Non-response	3.3
Total	100.0

Occupation

Question 5 referred to the type of employment of the respondent. A 100 percent response was obtained for this item. This data is pertinent in that the proportion of retirees is determined along with the general character of cottager employment. Some generalizations concerning cottager employment are presented later.

Table 6. Occupations of Respondents,
Secord Reservoir, 1964

Type of Employment	Percent of Respondents
Retired	29.0
Professional	6.4
Manufacturing	9.6
Skilled labor	32.1
Unskilled labor	9.7
Self employed	6.6
Other	6.6
Total	100.0

Family Members by Number and Age of Respondent

A 97 percent response was obtained for that part of Question 6 dealing

with family size. This type of data is important in that it reveals part of the social structure of area users and plays an important part in determining the recreation opportunity offered by this cottage recreation area.

Table 7. Size of Respondent Families,
Secord Reservoir, 1964

Members	Percent of Respondents
1-4	80.6
5-8	12.9
Over 8	3.2
Non-response	3.3
Total	100.0

An 81 percent response was obtained to that part of Question 6 dealing with age of respondent. In each interview the head of the family was contacted. Age data is important in that it provides some indication of what might be expected from owners in terms of social and economic needs in a private cottage dominated area.

Table 8. Age of Respondents,
Secord Reservoir, 1964

Age	Percent of Respondents
Under 41	9.6
41-50	16.2
51-60	19.2
61-70	25.8
Over 70	9.6
Non-response	19.4
Total	100.0

A major finding as a result of Question 4 is that the Secord Reservoir

area has a zone of influence or market area, of about 150 miles in terms of drawing cottagers to the area. In other words, most cottagers live within 150 miles of their vacation homes. Only 13 percent of those interviewed have permanent residences more than 150 miles from Secord reservoir. This finding holds some relevance for the Tittabawassee River basin in total, because millions of people in the southeastern and southcentral portions of the state live within this distance from lakes and reservoirs of the basin.

In addition to the survey sample, the location of permanent residences for all actual riparian owners in Secord Township were examined.¹ It was found that about 64 percent had residences within 100 miles of Secord reservoir and all of the riparian owners lived within 150 miles from the reservoir.

Occupation data imply that labor-type occupations seem to be prevalent among Secord cottagers. This likely reflects the influence of the manufacturing regions of lower Michigan and the existing large labor market. Also it might reveal some type of personal or social need on the part of the labor class of employees for certain values derived from owning and using vacation homes as a break-in-work.

Family size data indicate that each Secord cottager family has 3.6 members, on the average. This figure was used in estimating person-days of cottage recreation opportunity, and in a following section this figure will be used in calculating cottager expenditures.

¹Water Resources Commission files, Michigan Conservation Department, 1966.

Another important implication concerns the age of the respondents. The average age of all respondents was 56.5 years. Approximately two-thirds were over 50 years of age. About 44 percent were over 60 years of age. These findings have relevance in terms of possible retirement potentials of Secord cottagers. The implication is that retirement homes may undergo substantial increases in numbers in the not too distant future. In fact, in answer to Question 29, about 61 percent of those responding indicated they would consider retiring to their vacation homes. Thus some of the questions asked during this survey will possibly become questions of even greater importance as the cottage community ages and changes.

Secord Cottage Recreation Opportunity

Questions 7, 8, and 9 were intended to provide some indication of the amount of recreation opportunity, measured in person-days, offered by recreation housing at Secord Reservoir.

Frequency of Area Visits

Question 7 concerned the frequency of visits to Secord Reservoir. This question is important in that it provides some indication of the number of visits made to cottages in the area.

Table 9. Number of Visits by Respondents,
Secord Reservoir, 1964

Number of Visits	Percent of Respondents
1-10	16.2
11-20	9.6
Over 20	41.9
Not applicable	12.9
Non-response	19.4
Total	100.0

Usual Length of Visit

Question 8 was intended to provide data concerning the length of visits in terms of days. As 97 percent of the respondents were cottagers, recorded responses should give a reasonably good estimate of length of cottager visits.

Table 10. Usual Length of Stay of Respondents, Secord Reservoir, 1964

Length of Visit	Percent of Respondents
2 days	61.2
3-7 days	6.4
Summer	6.4
Permanent	16.1
Not applicable	9.9
Total	100.0

Size of Family Usually Present

Question 9, concerning the number of family members usually present on a visit to Secord Reservoir, received a response of 87 percent. The responses to this question are important in conjunction with the two preceding questions. The results are presented below.

Table 11. Usual Number of Family Members Per Visit, Secord Reservoir, 1964

Number of Members	Percent of Respondents
1-4	61.2
Over 4	16.1
Not applicable	9.7
Non-response	13.0
Total	100.0

A conservative estimate of 20 visits per cottage per year at two days per visit has been assumed, based on recorded data. Each Secord cottage would thus supply 40 days of recreation opportunity to a cottager family. With each such family having 3.6 members, on the average, recreation opportunity used per cottage amounts to 144 person-days per year. It follows that the sampled area, containing 150 cottages would offer 21,600 person-days per year. Expanding this to include 336 cottages in sections 3, 9, 10 and 15, which include most of Secord Reservoir, the recreation opportunity used by Secord cottagers totals some 48,384 person-days of recreation opportunity.¹ This would equal at least 120,960 activity days of recreation. The Tittabawassee River basin, containing possibly as many as 22,000 cottages (not all lakeshore), might offer a supply of 3,167,000 person-days per year. This would equal 7,920,000 activity days.

Characteristics of Respondents' Expenditures

This area of inquiry, comprised of Questions 10 and 11, examines the nature of recreational expenditures in monetary terms and in terms of the major commodities consumed.

Usual Per Trip Expenditures

Question 10 is intended to provide an indication of a general range of expenditures per trip. This question was not intended to measure major

¹See page 75. As of 1965, there were 707 small-tract properties in sections 3, 9, 10 and 15 of Secord Township. For the purposes of this study, all valuations over \$500 are assumed to include cottages. On this basis, 336 cottages were included in the above sections.

vacation expenditures if such vacations are longer than the average recreational visit to this area.

Table 12. Expenditures Per Visit by Respondents, Secord Reservoir, 1964

Dollars Spent	Percent of Respondents
0-10	19.3
11-20	29.0
21-30	6.4
31-50	3.2
Over 50	9.7
Non-response	32.4
Total	100.0

Major Commodities Consumed

Question 11 was designed to determine which kinds of commodities and services cost area visitors more in terms of total expenditures. The results are presented in the following table which ranks the commodities in terms of their contribution to total expenditures by visitors.

Table 13. Major Commodities by Rank, Secord Reservoir, 1964

Rank	Commodity
1	Food
2	Gasoline products
3	Refreshments

Tabulated data indicate that nearly 65 percent of those responding to Question 10 concerning expenditures per visit spend at least \$10 each visit. Over a quarter of the respondents spend over \$20 per visit. Findings

presented in Michigan Tourism indicate that \$10 per one day family visit is a reasonable estimate.¹ Thus a two-day visit would cause a \$20 expenditure by the visitor and his family. However, not all of this expenditure would be spent in the reservoir area. Examination of the items in the average cottager budget for Wisconsin suggests the possibility that one-half of the expenditures of cottagers are spent in the vicinity of their cottages (see Appendix B, Table 3).² Half of a \$20 expenditure per visit multiplied by 20 visits and again by 150 cottages amounts to \$30,000 spent by cottagers in the sampled area in 1964. Expanding this to include the 336 cottages in Sections 3, 9, 10 and 15 of Secord Township, the area expenditure figure might be as much as \$67,200, based on 20 visits at \$10 per visit. If there are 22,000 cottages in the Tittabawassee River basin, cottagers might be expected to contribute some \$4.4 million to the basin economy.

Vacation Characteristics of Secord Cottagers

This area of inquiry is comprised of Questions 13 through 16 and numbers 19 and 20. This section examines some characteristics of respondents' major vacations, including whether Secord Reservoir is a primary location for major family vacations, costs of such vacations, favorite seasons, favorite activities and the popularity of activities in the area.

¹Michigan Tourism, op. cit., p. 91.

²Fine and Werner, op. cit., p. 9.

Major Vacations at Secord Reservoir

Question 13 asked if the respondent comes to Secord Reservoir for his major vacation each year. A majority of the respondents indicated they did.

Table 14. Major Vacations at
Secord Reservoir, 1964

Responses	Percent of Respondents
Yes	67.7
No	6.4
Non-response	25.9
Total	100.0

Cost of Major Vacation

Question 14 was intended to provide data on the general cost of major vacations of respondents. As the above results indicate, most respondents are cottagers and most take their major vacation in the Secord area. Thus the expenditure data presented below is quite meaningful.

Table 15. Vacation Costs per Family,
Secord Reservoir, 1964

Cost in Dollars	Percent of Respondents
0-25	22.6
26-50	12.9
51-100	6.4
101-200	6.4
Over 200	9.7
Non-response	42.0
Total	100.0

Favorite Seasons

Question 15 asked the respondents' favorite seasons for participation in recreational activities. Results are presented below.

Table 16. Popularity of Seasons,
Secord Reservoir, 1964

Rank	Season
1	Summer
2	Fall
3	Winter
4	Spring

Favorite Activities

Question 16 asked the respondents to list their favorite activity for their first two choices of favorite seasons indicated for Question 15 above.

Table 17. Favorite Activities,
Secord Reservoir, 1964

<u>Seasons</u>	
First Choice	Second Choice
1. Water sports	1. Hunting
2. Fishing	2. Water sports
3. Hunting	3. Fishing

Popularity of Area Activities

Question 19 asked the respondents to indicate which activities they feel are most popular in the reservoir area. The intention of this question differs from that of Question 16 in that this requires an opinion rather than a personal preference. The response to this question totaled 94 percent.

Table 18. Popularity of Activities,
Secord Reservoir, 1964

Rank	Activity
1	Boating
2	Waterskiing
3	Fishing
4	Swimming
5	Hunting

Recreational Equipment

Question 20 asked respondents which kinds of recreational equipment they have with them in the Secord area. Response totaled 87 percent for this question.

Table 19. Recreational Equipment of
Respondents, Secord Reservoir, 1964

Equipment	Percent of Respondents
Water sports	100
Boating	100
Hunting	26
Fishing	52
Waterskis	33

Secord cottagers usually visit the reservoir area on more than ten occasions each year. The major vacation is also generally taken at the cottage. Perhaps this is to be expected when substantial amounts of time, money, and effort are invested in recreation-vacation properties.

Over half of responding cottagers indicated they spent less than \$50 per major vacation trip. This relatively small expenditure implies that a

major vacation is not much longer in duration than a two-day weekend for many cottagers. With the existence of guaranteed recreation opportunity at the reservoir the need to take the more traditional long-term annual vacation is perhaps lessened. Based on these considerations, the assumption will be made that major vacations and related expenditures are accounted for in the preceding section concerning area expenditures. The above discussion serves to indicate the need for additional research in the general area of recreational expenditures and their impact.

Another conclusion based on recorded data is that water based recreation leads in popularity in the Secord area. The activities boating, water-skiing, fishing, swimming, and hunting were chosen by the respondents in this descending order of popularity. The implication is that this is true in other water-enhanced recreational areas in the basin. Perhaps this is to be expected as part of the expression of individuals' personal and family desires and as an indication of non-measurable returns on recreational investment decisions.

Desirability of New Recreational Attractions

This area of inquiry, including Questions 17 and 18, explores public opinion with regard to the development of new kinds of recreational attractions and whether new kinds of attractions would cause visitors to spend more time in the area.

New Kinds of Recreational Attractions

Question 17 asked respondents what new kinds of recreational attractions they would like to have in the reservoir area.

Table 20. New Kinds of Recreational Attractions, Secord Reservoir, 1964

Attraction	Percent of Respondents
None	19.4
Improved fishing and hunting	16.2
Teen center	12.9
Skiing	3.2
Bowling	3.2
Baseball	3.2
Not applicable	9.8
Non-response	<u>37.4</u>
Total	100.0

Addition to Recreation Time

Question 18 asked if new kinds of recreational attractions would cause respondents to spend more time in the reservoir area. A definite opinion concerning additional recreation time was sought. The large non-response and negative answers are interpreted as meaning that the likelihood of increasing recreation time of property owners through adding new attractions is small.

Table 21. Additional Area Leisure Time, Secord Reservoir, 1964

Increased Time	Percent of Respondents
Yes	19.3
No	19.3
Undecided	16.2
Non-response	<u>45.2</u>
Total	100.0

Data indicates that slightly less than 20 percent of the cottagers are satisfied with the recreational development of Secord Reservoir as it is at present. Some improvement in the fishing and hunting success ratio would satisfy over a third of the cottagers, this includes those cottagers desiring no new recreational attractions. Provision of recreational facilities specifically for teenagers would increase the satisfied total to nearly 50 percent of all cottagers.

The conclusion reached is that in the Secord area, which is still very much under the influence of private cottage development, there is not a large desire for a wide range of new kinds of recreational attractions. This implies that private ownership of guaranteed recreation opportunity in the form of a cottage tends to reduce the range of recreational needs of cottagers as a group. It is also quite possible that the relatively high proportion of respondents over 50 years of age might have some moderating influence on the views expressed in the recorded responses. That is, as one gets older his desires for new kinds of attractions become less important. One must also remember that a cottage owner must have had some strong personal goals in mind when he made his decision to purchase his recreation property sometime in the past. Having satisfied these goals to a certain extent, it is likely that cottagers attain a certain level of contentment in terms of recreation needs.

Increasing the Attractability of Secord Reservoir

This area of concern deals with increasing the area's attractability by

means other than new kinds of recreational attractions as well as why the area is attractive to the respondents.

Increasing the Secord Reservoir Attractability

Question 21 inquired as to what could be done to make the Secord area more attractive to the respondents. Results are presented below.

Table 22. Increasing Area Attractiveness,
Secord Reservoir, 1964

Improvements	Percent of Respondents
Fishing opportunity	12.9
Removing underwater obstructions	6.5
Reservoir use regulations	3.2
Litter clean up	3.2
Road Maintenance	22.6
None	16.2
Undecided	3.2
Non-response	<u>32.2</u>
Total	100.0

Reasons for Area's Attractiveness

This question asked the reasons for the Secord area's attractiveness to the respondents.

Table 23. Attraction of
Secord Reservoir, 1964

Attraction	Percent of Respondents
Natural beauty	48.3
Water-based recreation	35.5
Non-response	<u>16.2</u>
Total	100.0

Road maintenance and improved fishing were the improvements most often mentioned in the responses. The relatively high response for the "no improvement necessary" category along with the very high non-response category seems to indicate a certain level of contentment among the property owners sampled. Again this is to be expected when an owner has already weighed the pros and cons of the investment decision and has found that ownership of a particular lakeside property has certain values which outweigh most negative aspects of the larger surrounding recreation area, meaning the rest of the reservoir.

Area Conflicts of Interests

This area of questioning was intended to provide information on the presence and nature of conflicts of recreational interests in the reservoir area along with respondents' views on surface water use restrictions.

Conflicts of Interests

Question 22 asked whether there were conflicts of interests among recreationalists in the Secord Reservoir Area. Comments were asked for but none were given.

Table 24. Area Conflicts of Interests,
Secord Reservoir, 1964

Conflicts	Percent of Respondents
Yes	16.2
No	54.8
Undecided	19.3
Non-response	9.7
Total	100.0

Surface Water Use Restrictions

This question, number 23, inquired as to whether the respondent would favor some form of restrictions on the uses made of the reservoir surface.

Table 25. Opinions on Use Restrictions,
Secord Reservoir, 1964

Response	Percent of Respondents
In favor	54.8
Not in favor	19.3
Undecided	22.6
Non-response	3.3
Total	100.0

Comments were requested for all positive responses. Of these, nearly 95 percent were accompanied by comments. Skiing and boating restrictions were most often mentioned as being necessary.

Less than one-sixth of the respondents indicated they knew of conflicts of interests among recreationists. However, over half responded that they would favor restrictions on surface water uses. This implies that such conflicts do exist and are likely to be inherited by most water dependent recreation areas developed without use restrictions.

Properties and Plans of Secord Cottagers

This area of inquiry is the first in that part of the questionnaire specifically designed for Secord area recreation property owners. Questions 25 through 30 concerned tenure, frontage, future plans, retirement possibilities, property values, and opinions on taxes.

Shoreline Frontage

Question 25 explored the frontage per cottage situation and the owner's satisfaction with the condition of his shoreline. Secord Reservoir is afflicted with a malady generally common to all reservoirs — shoreline erosion which aids the process of sedimentation in the lower portions of the reservoir and adds to the discoloration of otherwise more aesthetically attractive water. A more informative question may have asked whether the owner had made any attempts to stabilize his shoreline. A 97 percent response was obtained for Question 25. The findings from that part of the question concerning owner satisfaction with shoreline is presented below.

Table 26. Owner Satisfaction with
Shoreline, Secord Reservoir, 1964

Response	Percent of Respondents
Satisfied	90.3
Not satisfied	6.4
Non-response	3.3
Total	100.0

Property Tenure

Question 26, dealing with the owner's length of tenure was intended to explore the nature of cottager tenure at the reservoir.

Table 27. Property Tenure,
Secord Reservoir, 1964

Tenure (Years)	Percent of Respondents
1 - 5	32.1
6 - 10	35.4
Over 10	29.3
Non-response	3.2
Total	100.0

Future Plans

Question 27 was designed to examine owners' plans for their cottage properties.

Table 28. Plans for Cottage Properties,
Secord Reservoir, 1964

Plans	Percent of Respondents
No increased investment	35.5
Increased investment	35.5
Sell	0.0
Other	12.9
Non-response	16.1
Total	100.0

Owner Estimates of Property Value

This question, number 28, asked owners their opinions as to the value of their properties. A very low response, 48 percent, was obtained.

Table 29. Owner Estimates of Property Value, Secord Reservoir, 1964

Estimated Value (\$)	Percent of Respondents
5,000 or less	12.9
5,001 - 10,000	29.3
Over 10,000	6.4
Non-response	<u>51.4</u>
Total	100.0

Retirement Potential

This inquiry, number 29, asked if the property owner would consider retiring to the Secord area. A 90 percent response was obtained.

Table 30. Measurement of Retirement Potential, Secord Reservoir, 1964

Response	Percent of Respondents
Would consider	54.8
Would not consider	16.2
Undecided	19.3
Non-response	<u>9.7</u>
Total	100.0

Owner Opinions on Taxation

This question, number 30, asked the owner to classify his opinion in one of four categories and give a reason for doing so.

Table 31. Owner Opinions on Taxation,
Secord Reservoir, 1964

Category	Percent of Respondents
Too high	12.9
Too low	0.0
About right	77.4
Undecided	6.4
Non-response	3.3
Total	100.0

The majority of cottage owners were satisfied with the condition of their respective shorelines. The number of owners who had made attempts at stabilizing their shorelines was not determined, but observation led to the conclusion that most owners had made some effort along this line. Those owners indicating dissatisfaction with the present condition of their shoreline commented that they were planning breakwaters. Frontage ranged from 50 to 180 feet. All recorded frontages averaged 94.2 feet.

Recorded tenure ranged from 1 year to 24 years. The average length of tenure in 1964 was 8.5 years. This data indicates that cottage tenure is relatively stable in the Secord area.

A third of the respondents indicated they would make increased investment in their lakeside property. This in conjunction with the high proportion of property owners over 50 years of age (Table 8) and the fact that nearly 55 percent of those interviewed indicated they would consider retirement in the Secord area illustrates a future developmental phase that Secord Reservoir may be moving toward, a retirement home community.

This implies that the problems associated with retirement in lakeshore developments will become more prevalent as the Secord cottage community ages.

The owner estimates of property value ranged from \$3,000 to \$12,000. The average for all responses was \$7,853. This is somewhat lower than the \$8,800 current market value of Wisconsin private cottages as reported by Fine in 1960.¹ Using \$7,800 as the estimated current market value per Secord cottage, it is possible that the property value of private cottages about Secord Reservoir might amount to some \$2.62 million. Using this same estimated current market value figure for the estimated 22,000 second homes in the Tittabawassee River Basin, the property value figure would total \$171.6 million.

Over three-quarters of the respondents indicated that taxes on their investment were "about right." Nearly 13 percent thought taxes were "too high." The consensus is that local taxes in the Secord area are generally fair. Comments were asked for in Question 30. The majority of those received mentioned the general fairness of local taxes. A quarter of the comments received indicated that some property owners were concerned with getting more road improvements out of the tax dollar.

Examination of Selected Problems

This area of inquiry concerned the examination of three important problem areas to see if problems concerning domestic water supply, sewage

¹Ibid., p. 10.

disposal and rubbish disposal were present at Secord Reservoir. Question 31 asked respondents if they knew of or could foresee any problems concerning domestic water or sewage and rubbish disposal.

Table 32. Examination of Selected Problems,
Secord Reservoir, 1964

Response	<u>Percent of Respondents</u>		
	Water	Sewage	Rubbish
Yes	0.0	6.4	16.2
No	80.6	77.4	67.6
Non-response	<u>19.4</u>	<u>16.2</u>	<u>16.2</u>
Total	100.0	100.0	100.0

Comments with regard to sewage problems were concerned with low-lying property and the general problem of water pollution. Dump maintenance and dump location were the problems mentioned related to rubbish disposal.

The major conclusion drawn from the above data is that in general these selected problem areas do not exist in the Secord area; however, the existence of even one such problem cannot be ignored. An implication for the basin as a whole cannot logically be made.

Views on Land Use and Development

This section was intended to provide data on cottagers' views on additional land development, land preservation and feasibility of attracting more people to Secord Reservoir.

Additional Land Development

Question 32 was a three-part question concerning landowners' views

on additional waterfront, off-waterfront and rental property development.

The results are shown below.

Table 33. Landowner Views on Additional Land Development,
Secord Reservoir, 1964

Response	Percent of Respondents		
	Waterfront	Off-waterfront	Rentals
In favor	54.8	32.2	19.3
Not in favor	6.4	38.7	32.2
Undecided	16.2	12.9	19.3
Non-response	<u>22.6</u>	<u>16.2</u>	<u>29.2</u>
Total	100.0	100.0	100.0

The only comments received about the "Waterfront" category were two responses supporting "Not in favor" attitudes. These comments were concerned with present development versus overcrowding.

Comments were received from 42 percent of all respondents for the "Off-waterfront" category. All were in support of the "Not in favor" attitude. The only two reasons given were (1) the problem of no access to the water surface for lots developed off the waterfront, and (2) crowding or over use of the reservoir surface. It is interesting to note that more comments in support of a "Not in favor" attitude were received than actual responses to this attitude as shown in Table 33.

Only about 23 percent of the respondents commented on their indicated attitudes toward developing rental properties. The majority of these mentioned property abuse and generally bad conduct on the part of renters. Only two favorable comments were received.

Shoreline Preservation

This question, number 33, asked for the respondent's opinion toward preservation of some shoreline in its natural state.

Table 34. Landowner Views on Shoreline Preservation, Secord Reservoir, 1964

Response	Percent of Respondents
In favor	67.8
Not in favor	9.6
Undecided	6.4
Non-response	<u>16.2</u>
Total	100.0

Only 14 comments were received and 12 of these mentioned the natural beauty aspects of a non-developed shoreline.

Preservation of Off-Waterfront Land

Question 34 asked the respondent's views on preserving the natural state of land back from the shoreline.

Table 35. Landowner Views on Off-Waterfront Land Preservation, Secord Reservoir, 1964

Response	Percent of Respondents
In favor	77.4
Not in favor	6.4
Undecided	3.2
Non-response	<u>13.0</u>
Total	100.0

Of the 15 comments received, 6 mentioned hunting, 7 natural beauty,

1 favored providing public recreation on these lands, and 1 concerned guarding against over-development.

Attracting Additional People

Question 35 asked the respondent's opinion towards attracting more people to the Secord area.

Table 36. Landowner Views on Attracting Additional People, Secord Reservoir, 1964

Response	Percent of Respondents
In favor	22.5
Not in favor	32.1
Undecided	29.2
Non-response	<u>16.2</u>
Total	100.0

Eight comments were received. Six of these mentioned that crowded conditions and accidents would occur. Two respondents, interestingly enough, mentioned that they were in favor of and enjoyed having people around.

Nearly 55 percent of all respondents favored additional shoreline cottage development. Off-waterfront and rental development fared less well with about one-third of all respondents in each case expressing unfavorable attitudes.

In contrast with these results, the responses to Question 33 indicate over two-thirds of all respondents favor the preservation of some of the shoreline in its natural state. This suggests that certain areas should be

set aside and remain undeveloped. The problem is that there is no authority nor organization capable of providing this result.

An even greater percentage of cottagers favored preservation of non-shoreline lands in their natural state. In support of this, only slightly more than one-quarter of responding cottagers felt favorable towards attracting more people to the area.

The implication of this data is that most cottagers would favor additional shoreline cottage development as long as it did not cause a serious over-crowding of the reservoir area. Data also imply that shoreline cottagers generally don't begrudge the coming of more shoreline cottagers like themselves but tend to rebel at the thought of off-waterfront cottage and rental development. Perhaps this is a characteristic peculiar to all lake-shore cottagers; however, at present the implication cannot be applied to the entire basin without further study.

Building Restrictions, Owners' Organization and Tax Services

This last area of inquiry concerns owner attitudes toward present building restrictions, a property owners' organization, and certain services usually supported by local property taxes. It was intended that this section would provide a valuable and interesting look at potential institutional problem areas resulting from the development of a single-purpose reservoir, which has slowly evolved a multi-purpose nature, within the political and institutional framework of county and township government.

Owner Opinions on Present Building Restrictions

Question 37 concerned the respondent's opinion with regard to present building restrictions in the reservoir area.

Table 37. Landowner Opinions
on Building Restrictions,
Secord Reservoir, 1964

Opinion	Percent of Respondents
Favorable	61.3
Not favorable	6.4
Undecided	12.9
Non-response	<u>19.4</u>
Total	100.0

Eleven percent of the respondents indicated that present restrictions were satisfactory; 22 percent mentioned that present restrictions would protect area property values; 11 percent offered suggestions concerning no trailer homes, minimum size and value for structures and an official to enforce restrictions.

An Organization of Property Owners

Question 38 was another opinion query. It concerned the respondent's opinion with regard to an organization for property owners.

Table 38. Landowner Opinions on
Property Owner Organization,
Secord Reservoir, 1964

Opinion	Percent of Respondents
Favorable	58.0
Not favorable	0.0
Undecided	29.1
Non-response	<u>12.9</u>
Total	100.0

A quarter of the respondents commented on their opinions. All but one of these comments were in favor of such an organization. The major areas of concern mentioned were more representation, improvement of roads, conflicts of interests, supervision to upgrade inferior properties, controlled development and cleaning up the area.

Opinion Ratings of Tax Services

This last question is a four-part opinion-rating query. It asked respondents to rate police protection, road care, fire protection and rubbish disposal as either adequate or inadequate. Reasons for indicated opinions were also asked for.

Table 39. Landowner Opinion-Ratings of Usual Tax Services,
Secord Reservoir, 1964

Rating	Percent of Respondents			
	Police	Roads	Fire	Rubbish
Adequate	38.7	38.7	35.5	61.3
Not adequate	38.7	38.7	29.2	16.1
Undecided	9.7	9.7	12.9	6.4
Non-response	12.9	12.9	22.6	16.2
Total	100.0	100.0	100.0	100.0

Only ten comments were received on the police protection rating.

Only two mentioned that present protection was adequate. Eight felt more protection was needed.

Eleven comments were received for the road care ratings. One expressed satisfaction while ten expressed desires for increased service such as year-around maintenance.

Eight comments concerning fire protection were received. Three mentioned there was essentially no protection in the area. Two expressed satisfaction with present protection. One comment acknowledged the present volunteer fire department but questioned its adequacy. The remaining two comments were not applicable.

Eight comments were also recorded for the rubbish disposal question. Three of these expressed disfavor with maintenance and location while four supported "Adequate" ratings. One comment was not applicable.

Nearly two-thirds of all respondents expressed favorable opinions toward present building restrictions in the Secord area. This does not suggest that present restrictions are adequate or inadequate. Slightly less than 60 percent expressed favorable opinions with regard to a property owners' organization. While the opinions on adequacy of police protection, road care and fire protection are generally equally distributed between the "Adequate" and "Not adequate" ratings, it is evident that some discontent is present on the part of property owners. When such discontent is present, it is perhaps important that at least some form of study organization be instituted to facilitate solution of problems. An organization of property owners would be a likely first step in this direction.

Small Tract Development at Secord Reservoir

This section reports the findings of a detailed survey of Secord Township tax rolls which covered a period of 45 years from 1920 through 1965. The survey encompassed four sections in Secord Township, namely sections

3, 9, 10 and 15. The primary reason for examining the tax rolls beginning in 1920 is that this was five years before the completion of Secord dam and reservoir and would provide a "before and after" view of the valuation picture as well as a more complete picture of the small tracts situation. The findings of this survey are presented below.

Table 40. Assessed Valuations by Township and Small Tracts, and Small Tracts by Number, Secord Township and Reservoir Area, 1920-1965

Year	Assessed Valuations		Small Tracts ^c	
	Township Total ^b	Small Tracts ^c	Number	Change
1920 ^a	\$ 192,725	\$ 0	0	-
1925 ^a	232,490	0	0	-
1930 ^a	148,655	0	0	-
1935 ^a	133,200	0	0	-
1940	134,550	0	0	-
1945	151,894	6,550	24	24
1950	227,405	40,280	180	156
1955	449,100	149,650	357	177
1960	589,130	284,550	670	313
1965	1,679,970	771,600	707	37

^aUntil sometime between 1935 and 1940 the assessed valuations recorded by the township assessor were considered actual valuations. By 1940, this procedure had changed to a fractional valuation such as is commonly used at present.

^bRepresents the total for Secord Township real property only (excludes personal property).

^cSmall tracts refer to only those in sections 3, 9, 10 and 15.

It was found that in the studied sections small tract recreational properties were not developed until after 1940. Development evidently boomed in the post-war years. Although the Secord area seems to have been in a state of dormancy during the 15 years from 1925 to 1940, there is at least

one good reason for this. In 1930 some 63 acres of small tract recreational property were opened through subdivision in section 33 of Secord Township. This subdivided area was located about seven miles to the south of Secord Reservoir. This area was also located on Tittabawassee River backwaters. This development brought 549 small tracts onto the recreation property market and may have helped keep Secord land from moving onto the market until such a time when demand for recreation properties overtook supply, probably in the early post-war years.

Assessed Valuations of Secord Small Tracts

From 1945 when assessed valuations of small tracts measured only slightly over 4 percent of total valuation for Secord Township, the value of small tracts has grown to some 46 percent of total township assessment in 1965. Figure 1 illustrates this more clearly, however, it also shows that in the five years from 1960 through 1965 the growth in the total township assessment increased faster than the growth in small tract assessments. This might be due in part to the recent efforts in behalf of state equalization that have been occurring in the recent past. It is also due in part to the decreasing rate of increase in the number of new small tract properties added to the tax rolls, as shown in Figure 2.

Between 1955 and 1960, some 45 percent of all small tracts in the studied sections were entered on the tax rolls. In the five years from 1960 to 1965 only 5 percent of the total number of small tracts were recorded. This possibly indicates a general slowdown in development. It also might

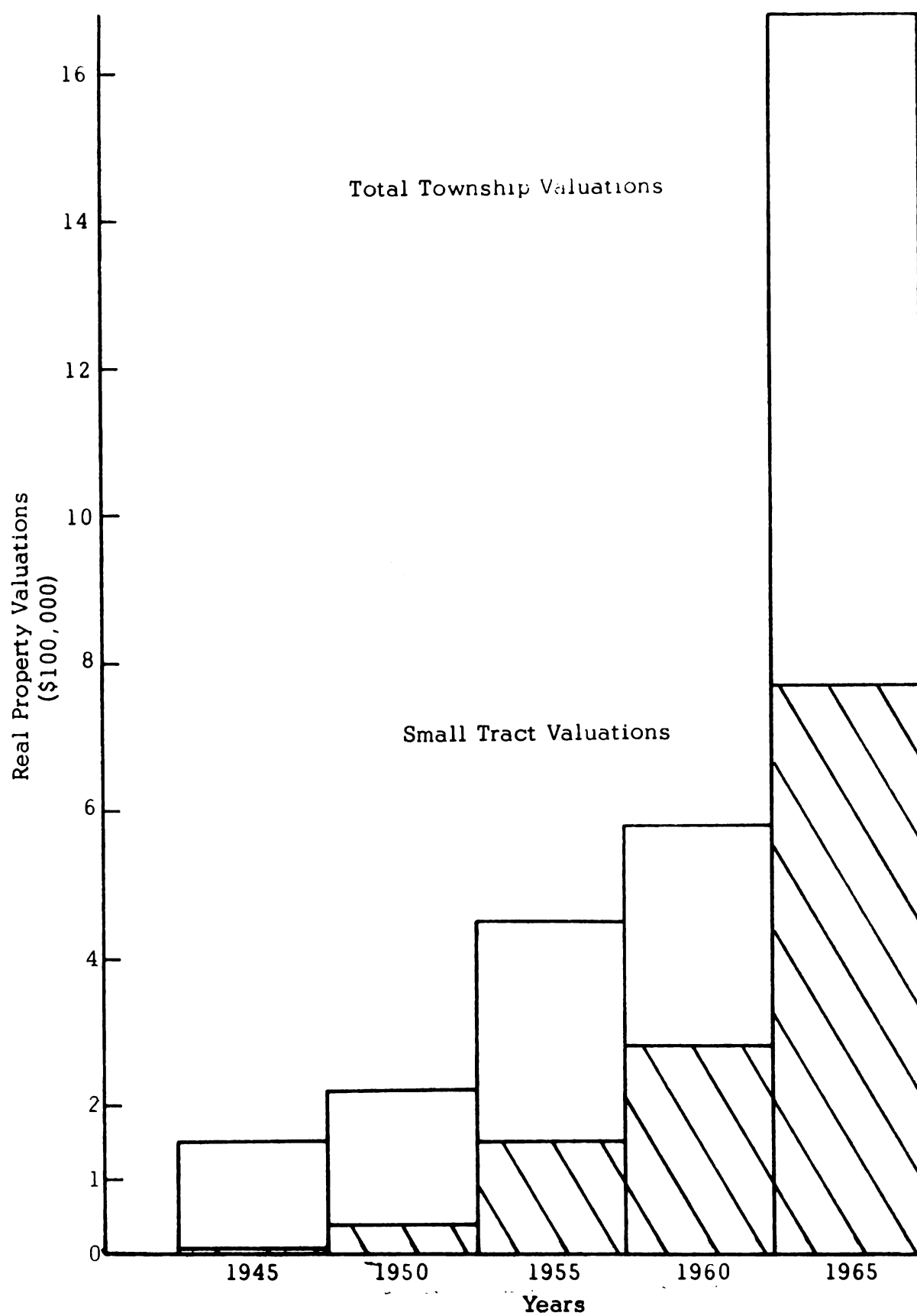


Figure 1. Township and Small Tract Assessed Valuations, Second Township, 1945-1965

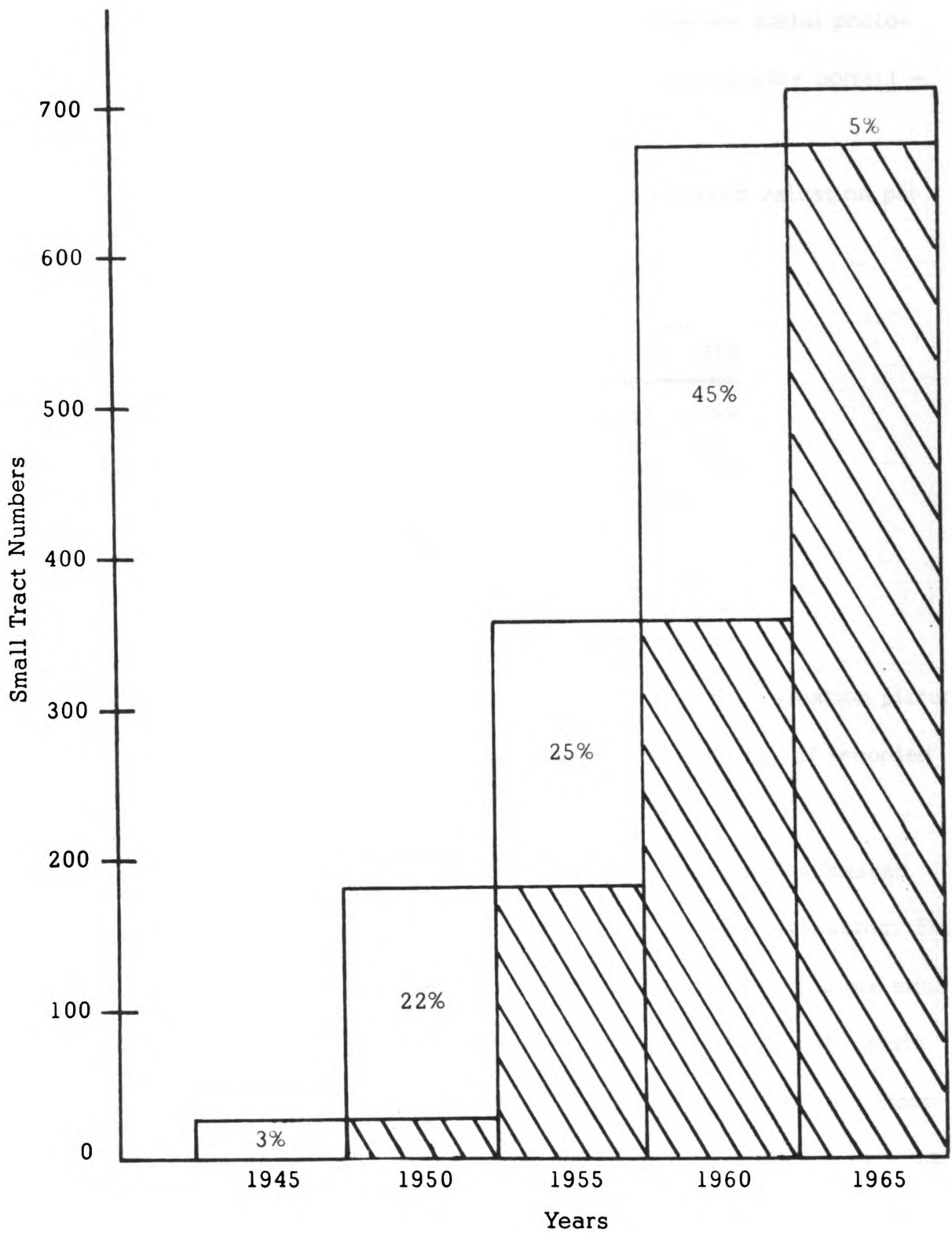


Figure 2. Growth of Small Tracts Over Time,
Secord Reservoir, 1945-1965

indicate that the reduced supply of choice lots is affecting sales and development. Personal tours of the area and study of recent aerial photographs seem to indicate that the first alternative might be more correct — a general slowdown of development.

The following table illustrates the growth in assessed valuation per small tract over time.

Table 41. Assessed Valuation per
Small Tract, Secord Reservoir, 1945-1965

Year	Valuation per Small Tract
1945	\$ 273
1950	224
1955	420
1960	426
1965	1,090

This again suggests that equalization is affecting the valuation picture because the big jump in 1965 comes with an increase of only 37 recorded small tracts.

The only explanation this author has for the variances in assessed valuations as illustrated in the above table is inconsistent assessing. For instance in 1965, Secord Township was assessing in excess of state equalized valuation. The state equalized valuation totaled \$1,565,715 while assessed valuation equalled \$1,679,970. A study by the Michigan State Tax Commission indicated that the equalized valuation should actually have been \$2.5 million or 50 percent of market value.¹ In accordance with the

¹Telephone conversation with Mr. Kelly of the Michigan State Tax Commission, September 23, 1966.

Michigan Constitution, in 1966 all assessed valuations will equal the corresponding equalized valuations and thus both will equal 50 percent of market value.

Total Market Value of Secord Small Tracts

The total market value of small tract properties can be determined using the above information. The 1965 equalized valuation for Secord Township should have been \$2.5 million. This would have constituted 50 percent of the market value of \$5 million. Small tract assessed valuations comprised 45.8 percent of Township assessed valuations in 1965. This percentage of \$5 million equals \$2,290,000, the value of small tract properties in the four sampled sections: 3, 9, 10 and 15. This is probably the closest estimate of the true market value of Secord cottage properties. It is interesting to note that the estimated market value of \$2.62 million, derived from responses to Question 28, although being somewhat higher, does compare rather well with the estimated market value as determined from Tax Commission data.

Secord Market Area

Eight counties contain 91 percent of all the cottagers in the two samples used. One sample consisted of those cottagers interviewed in the field survey in 1964. The second sample consisted of a list of all riparian owners in Secord Township as of May 1966.¹ The distribution of cottage owners is actually quite uniform over distance with a somewhat greater

¹Water Resources Commission, Michigan Department of Conservation.

concentration of owners within 75 miles of Secord Reservoir (59.3 percent).

The following table shows this distribution.

Table 42. Distribution of Secord Cottagers,
Secord Reservoir, 1964

Miles	Number	Percent
0 - 25	13	14.3
26 - 50	24	26.4
51 - 75	17	18.6
76 - 100	10	11.0
101 - 125	13	14.3
126 - 150	13	14.3
Over 150	<u>1</u>	<u>1.1</u>
Total	91	100.0

There are six major concentrations of cottage owners in the market area.

These are:

<u>City</u>	<u>County</u>
1. Detroit area	Oakland, Macomb, Wayne
2. Flint	Genesee
3. Saginaw	Saginaw
4. Bay City	Bay
5. Lansing	Ingham
6. Gladwin	Gladwin

Two other smaller concentrations are Mio, Oscoda County and Secord, Gladwin County. The major sources of cottagers as defined above are shown on Map 2 (page 31).

Concluding Remarks

The Secord Reservoir area contains a substantial investment for the purpose of guaranteeing recreation opportunity and leisure fulfillment. It also serves as the major source of recreation and leisure opportunity for those who own cottages there.

Cottagers and developers have contributed significantly to local tax revenues and have undoubtedly influenced the economy of the area through cottage construction, subsistence and recreational expenditures.

Cottage owners generally seem to be content in terms of recreation and leisure opportunity but this contentment does not hold true for the social and institutional environs within which these cottagers must live while in the area. Indications are that problems are not prevalent but cottagers have expressed desires to have somewhat more order to and regulation over future land use and development as well as more regulation over the uses of the reservoir surface itself.

The nature of the cottage community and its problems will likely change in the not too distant future as cottagers have indicated that they are considering retirement to the area.

Although the reservoir is over 40 years old, having been built in 1925, most small tract development has occurred since 1940 with the greatest growth between 1955 and 1960. Present indications are that the development of cottage-type dwelling units is slowing down, possibly due to the "tight" borrowers market for financing most one-family dwelling units at present. This situation could reverse in the future causing a resurgence of cottage construction starts.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The report Outdoor Recreation for America states that "at least one-fifth of free time goes into outdoor recreation today, and we may expect at least this much in the future."¹ Increasing population, mobility, and level-of-income is causing tremendous increases in the demand for outdoor recreation opportunities. With existing public recreation areas becoming more crowded, people are in need of different means of outdoor recreation expression. One result has been the growing importance of private cottage development.

Some of the counties containing parts of the Tittabawassee River basin do contain important public recreation areas, but for the basin as a whole, very few areas presently exist. Also, few private commercial outdoor recreation enterprises exist in the basin counties in terms of those offering water-oriented activities. Indications are that private cottages in the basin number possibly as many as 22,000. The recreation opportunity offered by these second homes or cottages is quite likely far greater than that offered by other sources of outdoor recreation in the basin. In fact, this study revealed that cottages in the Tittabawassee River basin (as

¹Outdoor Recreation for America, *op. cit.*

estimated from Census of Housing data) could offer over 5.5 times as much recreation opportunity as the sum of the public and private commercial supplies.

Some suggestions as to the social and economic effects and implications of cottage or second home ownership and development have been presented in the preceding chapters. The relevance of such implications is more clear when examined in the proper context. River basin development has been aided through development of both water and related lands, and it is this which provides the opportunity for vacation-type second home investment in an area previously unsuited to this type of development. This was the case prior to 1925 in the Tittabawassee River basin. Perhaps the demand for such investment opportunity did not exist at that time, as evidenced by the fact that the Secord area did not begin to develop for nearly 15 years, but nevertheless the building of power generation reservoirs provided opportunity for cottage development when such demand finally found need of expression.

What are the implications of this type of development? It shows that an area can be made attractive to recreationalists through artificial resource endowment. It also shows that an area becomes more complex with the added importance of recreation and the resulting numbers of part-time residents.

Private cottages offer both recreational benefits to owners and economic benefits to surrounding areas. They insure or guarantee some quantity

and quality of outdoor recreation opportunity known to the owners and at the same time cause substantial increases in the tax base of rural areas while directly contributing to the immediate economy by means of various consumer expenditures.

Taken as a whole, the Tittabawassee River basin does not stand out particularly as a recipient of recreation spending, although five predominately rural counties do receive substantially higher proportions of recreation spending than the remaining counties. The assumption is that cottagers may be major sources of this spending in these counties within the basin.

Second cottagers generally live within 150 miles of the reservoir. They visit the reservoir often, nearly every other weekend, have between three and four members in their families, and many are approaching an age which makes it feasible to begin thinking about retirement and the role the cottage will play. Standard types of water-oriented recreation equipment are on hand along with hunting gear.

In terms of new recreation attractions, most would like to see hunting and fishing success improved. Some provision for teenagers would probably be welcome also. Generally, most cottagers are satisfied with the development of the area and seem to enjoy communing with nature and neighbors. Problems are not a problem in the area at least in the minds of cottagers. However, many cottagers favored some things such as use restrictions, building restrictions, owners' organization, and increased

fire and police protection. In other words, taxes are about right but lets have more services!

Conclusions

Reservoir construction can endow an area with value creating resources in terms of recreation development. Such development can raise land values and cause small tract owners to contribute to the local economy by means of expenditures on their properties and on their families while they are visiting their vacation homes.

Such development can also cause various problems as a result of drawing hundreds of families into an area for the primary purpose of the pursuit of leisure. These problems range from individual differences of opinions to major conflicts of interests with regard to resource use.

The number of recreation-type second homes is such that they must be considered in state and federal inventories of recreation opportunity and plans based on needs as shown by comparison of inventories of supply and estimates of demand. These types of plans involve public expenditures and such expenditures should be based on the best data available. The fact that this study indicated that cottages in the Tittabawassee River basin offer 5.5 times the recreation opportunity that public and other private areas provide suggests that perhaps the real importance of cottages are being overlooked in public investment decisions.

Needed Research

In view of the accelerated public concern with outdoor recreation and

the above stated conclusion that Tittabawassee River basin cottages provide over five times the used, water-oriented, recreation opportunity provided by public areas and private enterprises in the basin, perhaps more study should be directed toward delineating the real significance of cottages and how they relate to the total outdoor recreation situation. To be more specific, additional research is needed in order to determine vacationing patterns of cottagers, their recreational wants, habits, problems, plans, etc. This would allow public agencies to program their plans more accurately in terms of present and future outdoor recreation supply and possibly in terms of consumer demand. This research would provide us with useful information which would enable those responsible to make better public investment decisions in terms of providing outdoor recreation opportunity.

Research on the economic implications of recreational dwelling development should allow us to better allocate scarce resources in terms of providing public manpower and funds in efforts to stimulate economic activity in depressed or under-developed areas in our Nation. More specifically, public programs to stimulate economic activity are receiving added impetus over time as characterized by government activity in such programs and areas as Appalachia, Ozarkia, and numerous Resource Conservation and Development Areas throughout the Nation. Income and employment are the variables forming the cross to be borne by all, and only increased knowledge of development opportunities can help us bear the burden of helping

people to help themselves. In this regard, cottage and lake development is a most popular vehicle for carrying the battle of under-development to the home ground — the depressed area. In the past, such development has been well documented in many instances but the implications it holds for raising incomes and reducing unemployment has generally been neglected. Thus, the whole question of economic impact begins with speculative efforts in real estate, continues through the provision of access and the construction of impoundment and service facilities, the sale of lots, the building of cottages, and finally through the flow of vacationers' expenditures through the local economy. All aspects are important and additional data could be put to good use.

Research into both the good and bad effects of recreational small tract development could be valuable to the people involved: cottagers, permanent residents in surrounding areas, federal, state, and local governmental officials who must represent all, and agencies involved in providing recreation opportunity through planning, financial, or technical assistance concerning water resource development.

On the local level it is possible that primary responsibility for examining problems and implications of a specific recreational development such as that at Secord rests with the local governmental officials and private citizens involved. On a broader level, all concerned agencies within state and federal structures should begin to analyze the various socio-economic aspects of recreational second homes.

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APPENDICES

APPENDIX A

METHOD FOR ESTIMATING A MEASURE OF OUTDOOR RECREATION DEMAND

This simplified method can be used to measure the annual total potential outdoor recreation demand assumed to be generated by any particular population.

1. Determine which activities will be considered in the study. Outdoor recreation as defined by ORRRC includes the 24 activities listed in Table 1 (p. 212) of Outdoor Recreation for America. This method will use the activity days per person for all persons 12 years of age or older.

2. Determine the population of the area being studied and that proportion which is 12 years and older.

3. Multiplying the activity days per person by the population 12 years and older will give an approximation of annual total potential outdoor recreation demand by any and all listed activities.

DETERMINATION OF PRIVATE SECTOR SUPPLY¹

For incorporating NACD (National Association of Conservation Districts) inventory data into recreation supply information, two approaches are possible: (1) determination of private land and water recreation acreage, and (2) determination of recreation opportunity offered by private enterprises. The latter approach deals with design load and its translation into potential visitation.

Procedure: Determination of private sector supply from NACD data.

Assumption: Capacity of an enterprise for an activity is not a total day capacity, but a design capacity for determining the amount of participants that can be accommodated in that activity at one time.

Method:

1. Determine activities to be inventoried.
 2. Determine counties to be inventoried.
 3. Capacity data for those activities considered in the study can be lifted from NACD raw data sheets (showing businesses and activities provided for) by county. Where units are listed (campsites, boats, picnic tables) a multiplier is used to obtain capacity in persons. For example, number of picnic tables x 4 = capacity or design load.
 4. Total all recreation acres and water acres for those enterprises
-

¹Bureau of Outdoor Recreation, Lake Central Region, Ann Arbor, Michigan.

offering recreation opportunity for a chosen activity. Subtract water acres from total acres for recreation. The result is land acreage for recreation.

5. Total all capacities for all activities being considered. This results in total NACD design load.

6. Potential visitation = $\frac{\text{Total design load for a selected year.}}{\text{Design load factor (total)}}$

The design load factor used is .0184 as determined by the Bureau of Outdoor Recreation, Lake Central Region, Ann Arbor, Michigan.

METHOD FOR ESTIMATING THE NUMBER OF SECOND HOMES IN AN AREA¹

A vacant housing unit is one which is temporarily occupied by persons having a usual place of residence elsewhere. Census of Housing data contain two categories which approximate the number of second homes. These are: (1) Held for occasional use, and (2) Seasonal. The first category means primarily second homes which are supposedly non-seasonal in character, but available for weekend or other occasional use. Seasonal units are intended for occupancy only during some particular season of the year. This group includes units for seasonal migratory workers along with recreational units. Thus this portion of the second home total is likely overstated.

The estimated number of second homes is the total of Bureau of the Census figures for these two categories for all the counties in the studied area. Such figures are available only on a county and state basis.

¹U. S. Department of Commerce, Bureau of the Census, Census of Housing, 1960, Michigan, Tables 2 and 31.

METHOD FOR ESTIMATING RETAIL SALES FOR RECREATION¹

This method determines the percentage increase or decrease in retail sales tax collections by months over or under some assumed base month.² The base month for the purpose of this study was March. This month was chosen because it represented the low point of the year in terms of retail sales tax collections for the State and six of the eleven counties studied. Of the remaining five, February was the low month for four and April for one. However, the March figures were very close to those for February and April. The time period involved was one year — from December 1964 to November 1965.

Procedure

1. Using March as a base month, the sales tax collections for each of the remaining months was divided by the base month figure in order to find the monthly percentages as compared to the base. This procedure is followed for all study units (counties, basin and state), and automatically sets the base month equal to 100.

2. The percentages for all months are totaled by:

¹William R. Brueckheimer, "The Significance of the Recreation Industry in Alger County, Michigan" (unpublished Ph.D. dissertation, Department of Geography, University of Michigan, 1953), pp. 81-83.

²Source: Michigan Department of Revenue, Research and Statistical Bulletin, Vol. XXVII, Issue 6.

a. subtracting the differences from 100 for those months below the base.

b. adding the differences from 100 for those months above the base.

This must be done for all study units.

3. Find the difference between each study unit and the state by subtracting the state total obtained in Step 2 above from the corresponding total for each of the other study units.

4. The resultant differences are then multiplied by the respective base month taxes collected for each study unit.

5. Next divide the results of Step 4 by the respective total annual sales tax collected in each study unit. This determines the percentage of retail sales tax collections, and thus retail sales, attributable to recreation spending or to those catering to tourism and recreation trade.

APPENDIX B

Appendix Table 1. Public Recreation Areas in the
Tittabawassee River Basin, 1963-64^a

Name	County	Acreage		Visitation
		Land	Water	
		Acres		Numbers
Wilson State Park	Clare	32	0	193,720
Tobacco River Access	Clare	20	0	3,200
Wayside Areas	Clare	11	0	NA ^c
Gladwin State Recreation Area	Gladwin	335	0	1,000
Wiggins Access Site	Gladwin	32	- ^b	1,500
Littlefield Lake Access	Isabella	10	- ^b	630
Coldwater Lake County Park	Isabella	40	- ^b	4,000
Chippewa River State Forest	Mecosta	59,790	530	176,900
Midland County Veteran's Memorial Park	Midland	130	0	2,500
Edmore State Game Area	Montcalm	1,131	- ^b	2,560
Vestaburg State Game Area	Montcalm	850	- ^b	NA ^c
Criton County Park	Osceola	40	- ^b	3,000
Immerman Park	Saginaw	93	0	3,200
Total		62,414	530	392,210

^aCompiled from the Bureau of Outdoor Recreation's Inventory of Public Recreation Areas, Lake Central Region files, Ann Arbor, Michigan, 1965.

^bAccess to more than 100 acres of surface water is provided by each of these areas.

^cNot available.

Appendix Table 2. Private Commercial Enterprises^a,
Tittabawassee River Basin, 1964

County	Acres		Capacities						
	Water	Land	Boating & Waterskiing	Fishing	Hunting	Camping	Picnicking	Swimming	Nature Walks
Clare	10	3	-	-	-	-	-	-	-
Gladwin	10	1,738	14	-	-	18	-	-	-
Gratiot	-	210	-	-	-	-	-	-	-
Mecosta	-	920	-	-	-	-	-	-	-
Midland	^b -	30	-	-	-	-	16	500	-
Montcalm	80	600	10	-	-	-	-	150	-
Ogemaw	55	5,060	102	95	45	108	8	200	-
Osceola	268	4,426	8	16	-	100	37	-	-
Saginaw	<u>256</u>	<u>2,904</u>	-	-	-	-	<u>5</u>	-	<u>700</u>
Totals	675	17,273	134 <u>x3</u> 402	111 <u>x3</u> 333	45 <u>-</u> 45	226 <u>x3</u> 678	76 <u>x4</u> 304	850 <u>-</u> 850	700 <u>-</u> 700
Grand Total = 3312 + .0184 = 180,000 visits									

^aNACD (National Association of Conservation Districts) Inventory of Private Commercial Outdoor Recreation Enterprises by Business.

^bAccess to water is provided by an inventoried business.

Appendix Table 3. Expenditures in
Wisconsin by Cottage Users, 1959^a

Expenditure Category	Resident Cottage Average	
	\$	%
Purchased meals	53.58	4.18
Groceries & meats ^b	230.91	18.03
Fishing licenses, equipment, etc.	21.14	1.65
Boat rentals ^b	1.91	.15
Transportation	114.04	8.91
Amusements ^b	67.18	5.25
Clothing	37.09	2.90
All others	53.11	4.15
Unclassified	27.03	2.11
Boats, trailers, etc.	185.38	14.48
Insurance	41.87	3.27
Real estate taxes ^b	102.67	8.02
Maintenance and improvements ^b	<u>344.63</u>	<u>26.91</u>
Total expenditures	\$1,280.54	100.00

^aI. V. Fine and E. E. Werner, Private Cottages in Wisconsin, Wisconsin Vacation-Recreation Papers, Vol. I, No. 4 (Madison: Bureau of Business Research and Service, School of Commerce, University of Wisconsin, 1960.

^bItems most likely to be purchased in the local area. The total for these items is \$747.30, or 58 percent of the total.

APPENDIX C

SECORD RESERVOIR FIELD QUESTIONNAIRE: AREA RECREATION

1. Do you own property in this area? Yes_____ No_____ If no, why have you come here? _____

If no, would you like to own property here? Yes_____ No_____ Undecided_____ Why or why not? _____

2. Are you here just for the day? Yes_____ No_____ If no, how long will you be here altogether? _____
3. Where are you staying while here? Your own cabin____, Visiting____, Camping____, Mobile home____, Renting____, Other (specify)_____
4. Where do you live? City_____, State_____, Miles away_____
5. What is your occupation? _____
6. How many members in your family?_____, Childrens' ages_____
Your age_____
7. How often do you come to this area? _____
8. How long do you usually stay? _____
9. How many members of the family usually come? _____
10. How much do you usually spend in the immediate area each trip?
\$0-10____ 11-20____ 21-30____ 31-50____ over 50____
11. What kinds of commodities or services cost you the most in terms of total expenditures? Check 1, 2, 3 etc., by size of expenditures.
Gasoline (motor supplies) _____
Food (specify kinds of foods) _____
Refreshments (other than foods) _____
Recreational facilities and services (boat and cabin rentals, etc.) _____
Other (specify) _____

12. How many trips do you make for recreational purposes, in an average year? 0-5____ 6-10____ over 10____
13. Do you come here on your major pleasure trip (your vacation)?
Yes____ No____ Why or why not? _____

14. How much does a family vacation generally cost?
\$0-25____ 26-50____ 51-100____ 101-200____ over 200____
15. What are your favorite seasons for participation in recreational activities? Mark choices 1, 2, 3, etc.
Summer____ Fall____ Winter____ Spring____
16. What are your favorite forms of recreation activities for those seasons marked above? 1st choice____
2nd choice____
17. What new kinds of recreational attractions would you like to see developed in this area? _____

18. If these were developed, would you spend more time in the area?
Yes____ No____ Undecided____ If yes, how much more? _____
19. Which types of recreational activities are most popular in this area? Check 1, 2, 3, etc. by order of popularity.
Hunting____ Fishing____ Boating____ Swimming____
Skiing____ Other (specify) _____
20. What kinds of recreational equipment do you have with you in the immediate area? _____
Motor size (hp) _____
21. Other than new recreational attractions, what could be done to make this area more attractive to you (and your family)? _____

22. Do you think there is much conflict of interests between different groups of recreationalists in this area? Yes____ No____

Undecided____ If yes, what particular conflicts? _____

23. Would you favor some form of restrictions on the uses made of the surface water of this reservoir? Yes____ No____ Undecided____

If yes, what types of restrictions? _____

ADDITIONAL COMMENTS:

FOR PROPERTY OWNERS:

24. Did you buy your property? Yes____ No____ If no, specify_____
25. How much frontage do you own?_____ Are you satisfied with it as it exists at the present time? Yes____ No____ If no, what might you do to improve it? _____

26. How long have you owned this property?_____
27. What are your future plans for this property?
No increased investment____ Increased investment____
Sell____ Other (specify)_____
28. What is your property worth?_____
29. Would you consider retiring to this area? Yes____ No____
Undecided____
30. What is your opinion of the taxes on your investment?
Too high____ Too low____ About right____ Undecided____
Why do you think as you do? _____

31. Do you know of or foresee any problems:
In obtaining an adequate supply of water for domestic use (drinking, cooking, etc.)? Yes____ No____ If yes, what problems? _____

- With sewage disposal? Yes____ No____ If yes, what problems? _____

- With rubbish disposal? Yes____ No____ If yes, what problems? _____

32. What is your opinion of additional land development in this area with regard to:

Waterfront lots? Good____ Not good____ Undecided____ Why?

Off waterfront lots? Good____ Not good____ Undecided____

Why? _____

Rental properties? Good____ Not good____ Undecided____ Why?

33. Would you favor preserving some shoreline in its natural state?

Yes____ No____ Undecided____ Why? _____

34. Would you favor preserving some land off the waterfront in its natural state? Yes____ No____ Undecided____ Why? _____

35. What is your opinion towards attracting more people to this area?

Favorable____ Not favorable____ Undecided____ Why? _____

36. As a property owner:

Why is this area attractive to you? _____

How could this area be improved or made more attractive to you?

37. What is your opinion with regard to building restrictions in this township? Favorable____ Not favorable____ Undecided____ Why do you feel this way? _____

38. What is your opinion with regard to a "property owners' organization" to consider problems in this reservoir area?

Favorable____ Not favorable____ Undecided____

Why? _____

39. For this area, how do you rate:

Police protection — Adequate____ Not adequate____ Undecided____
(land and water)

Why? _____

Road care — Adequate____ Not adequate____ Undecided____

Why? _____

Fire protection — Adequate____ Not adequate____ Undecided____

Why? _____

Rubbish disposal — Adequate____ Not adequate____ Undecided____

Why? _____

ADDITIONAL COMMENTS:

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