

THE PROVISION OF OPEN SPACE
IN SOUTHEAST MICHIGAN;
TRENDS, NEEDS, AND MEANS

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ABSTRACT

THE PROVISION OF OPEN SPACE IN SOUTHEAST MICHIGAN: TRENDS, NEEDS, AND MEANS

by Richard Mark Wolfe

The ten county area surrounding the City of Detroit in southeastern Michigan contains 60 percent of the population of the state. If predictions for the future prove accurate, then there will be further substantial increases in population. In conjunction with the growth of population has come a tremendous increase in the demand for open space for recreation, conservation, education, facilitating the direction of urban growth, and aesthetics. Population growth is responsible for a large share of the increased demand, but other factors are also significant causes of the demand increases. Changes in population age structures, family composition, income, education, and mobility have accelerated the growth of demand for open space in metropolitan areas.

The vast open space resources of Michigan are beyond the effective reach of many of the residents of the study area for day trip or local use. The two most important providers of open space in the study area are the Michigan Department of Conservation and the Huron-Clinton Metropolitan Authority. Each operates considerable acreage that is primarily devoted to day use activities. The Wayne County Parks and the Detroit and Dearborn City Parks are the most significant with respect to the provision of

local recreation land. Only a few of the many cities in the study area (Dearborn is one of them) approach, or exceed, established standards for per-capita park acreage. Many cities have virtually no park acreage, and the citizens of these communities must depend upon the facilities provided by other governmental bodies. In the absence of adequate local park acreage for the urban population, the extensive day use areas have become overcrowded, and their value for day use activities has been impaired.

A survey of township supervisors, representing all the townships in the southeastern Michigan study area, was conducted to determine their attitudes toward the open space problems that would face them if their communities became more urban. The survey results indicated that, in the absence of some strong minority leadership, the future open space needs of the newly suburbanized townships may not be adequately met. The supervisors seem not to realize that solutions to open space problems are possible so long as local government is willing to utilize what aid is available from other governmental units. The officials indicated little awareness of the legal devices that are available to them to acquire open space land.

Purchase of the fee title has been the most common method of acquiring open space. The limited financial capacity of many local governments makes any alternative method of open space preservation especially attractive. The purchase of conservation easements, when in conjunction with effective zoning and tax relief measures, can provide each community with

the maximum open space preservation within their financial means. However, easements cannot replace fee purchase if the land involved is to receive extensive public use.

While providing only limited direct aid to local communities, the State of Michigan has, through its new Constitution and its Statutes, made it possible for each local government to provide for their open space needs. The Federal government assists local governments with open space problems through many different aid programs. Primary responsibility for these programs lies with the Department of Agriculture, the Department of the Interior, and the Urban Renewal Administration of the Housing and Home Finance Agency. Aid consists of technical assistance, research, loans and loan guarantees, and matching fund grants. The available programs are not now being used to their full potential by the local governments in Michigan.

Effective solution to the open space problems of southeast Michigan, and indeed any large metropolitan area, will depend upon the ability of the individual units of local government to work together toward the common goal of providing adequate land for the needs of their populations. In this manner, the expensive duplication of facilities could be minimized and the maximum attention could be given to the creation of a coherent system of open space, rather than a multitude of unrelated units. The Huron-Clinton Authority has been an excellent model for what can be done using the river valleys as the nucleus of an open space system.

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Richard Mark Wolfe

Hell we are building here on earth.

Headlong, heedless, we rush

to pour into air and water poisons and pollutions
until dense choking palls of smog lie over cities
and rivers run black and foul

to blast down the hills, bulldoze the trees,
scrape bare the fields to build predestined slums;
until city encroaches on suburb, suburb on country,
industry on all, and city joins city, jamming the shores,
filling the valleys, stretching across the plains

to take from our young their wild free wanderings
and the help of home, until cheated, deluded,
trapped in city corridors, enmeshed in suburbs,
empty of heart, mind, hand, they turn their energies to evil

to allow shortsighted men pleading specious, lesser needs,
to violate our parks, forests, wilderness,
to herd us jostled, defeated, where only a few at any time
should pass.
and for cheap amusements and a moment's profit,
to ruin for all time what all time cannot replace

NANCY NEWHALL -

from This Is The American Earth

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PREFACE

The past century has seen our nation grow from a predominantly agricultural, and frontier oriented nation into an overwhelmingly urban society, dominated by bigness, complexity, and rapid change. Our urban population has grown from 20 percent of the total population in 1860 to 70 percent in 1960. In 1860 there were six million urbanites, today there are more than 128 million Americans living in cities and towns.

Until the advent of the motor era, the cities grew ever more dense. Transportation was poor and a home near the center of the city was highly desired, even if it had to be in a building with many apartments. Ultimately it was the automobile that freed the urban middle-class from the confines of the urban core. Each family could seek its own home along the new streets or old wagon ruts that extended out from the center of town.

Suburbanization has essentially been a frantic quest for space: a desire to escape from the crowding of the central cities, and to return to the life patterns of our agricultural past. Unfortunately our quest for the suburban Erewhon has proved as elusive as all the utopias of the past.

The boom in suburbia has resulted from the romantic pursuit of a dream and the real need for shelter. The dream of the good life of domestic bliss in a sylvan setting was inherited from the 19th century English planners who had preached a persuasive sermon of everyman's home-of-his-own-in-the-country, a kind of quasi-rural retreat into peace and privacy... But somewhere along the way the suburban dream turned into the subdivision nightmare, the

dreary look-alike developments, the slums of the future,
the "slurbs."¹

Our suburbs are an ill-defined and formless confusion, neither city, nor country. They stretch for miles around the decaying heart of the central core, and press outward at an ever-increasing rate. The older suburbs creep inexorably toward the center and lose all pretense of being a green oasis.

We have, as a society, not failed to see the need for open space, but our efforts have been too little and too late. We hoped that the lot upon which we build our homes could be used to meet all needs for open land. As our needs expanded and the lot size contracted it was recognized that more was needed than just a backyard.

Starting with the Yellowstone Park Act of 1872, the Federal Government has been concerned with preserving the most valuable scenic attractions throughout the nation. The National Park Service, the U. S. Forest Service, the Bureau of Land Management, the Bureau of Sport Fisheries and Wildlife, and the Corps of Engineers administer the land that represents the large and effective Federal commitment to the preservation, conservation, and wise use of our natural resources.

Many state governments have done much to set aside large areas as public open land, notably Michigan, New York, and California. But these lands are to a large extent too far from major population centers to be used

¹Ada Louise Huxtable, "Clusters Instead of Slurbs," The New York Times, Sunday Magazine, February 9, 1964.

for day trip activities. Most of the land held by the Park Service and the Forest Service are far from the densely settled Northeastern part of the nation.

Perhaps the single greatest open space need, the one most often unrecognized and unmet, involves our daily contact with the natural environment. For many of our citizens, especially the economically disadvantaged, the nearest city park may be of greater value than all of the National Parks.

The sporadic and undisciplined growth of our suburbs has created a situation where everyone has a certain minimal amount of space but few families have enough to satisfy all their needs. Privacy and a feeling of space is hard to come by on a 100'x100' lot. Suburbanization has had lasting effects on the surrounding natural environments, and has profoundly altered the economic and social situation of the communities it has affected.

There is deep concern, sometimes bordering on panic, over the sprawl that since World War II has scattered developments like buckshot over miles of country-side. This sprawl is leaving in its wake: threats to farming and wildlife, problems of floods and stream pollution, acute transportation difficulties, high tax costs to localities aggravated by lack of control over the timing and location of development, and a suburbia without the amenities for which families had fled the cities.¹

In many of our suburban areas, little thought has been given to the problem of providing public open space land. One of the chief values of open land is that it provides variety to an otherwise dull urban environment. The suburbs, in spite of the small pieces of private green space,

¹ Shirley Adelson Siegel, The Law of Open Space (New York: The Regional Plan Association, 1960), p. v.

present as monotonous an image as do the densely settled urban cores.

If our cities are ugly, and as always this must be a personal matter, it is because we have not chosen to make them beautiful. We are still too concerned with the minimization of costs and the maximization of economic returns. Admittedly, it is cheaper to level a forest, and replace it with a featureless and treeless subdivision. It is here suggested that it is better for society if the subdivision were constructed with a minimum of disturbance to the natural setting. We should be willing to pay the higher purchase price. My point here is that beauty doesn't just happen, we must want it enough to ensure that expedience doesn't destroy it.

CHAPTER I

INTRODUCTION: OPEN SPACE IN A MODERN SOCIETY

What is open space? While a precise definition of the term is hardly possible, it seems useful to present some clarification of the manner in which "Open Space" shall be used in this report. It is perhaps easiest to begin by stating what open space is not. Land upon which homes, streets, and schools have been built is obviously not open land. Any land where the structures of man dominate the scene is not open space.

The term open space implies some degree of naturalness, the absence of man's domination. Jeanne Davis, writing in the 1963 Yearbook of Agriculture, indicates that in order to be considered as open space each piece of land must meet three conditions.

It must be relatively free of manmade structures and give the appearance of a natural landscape. Only areas with 25 percent or less of the total site covered by buildings, parking lots, and roads are sufficiently uncluttered to be considered as possible open spaces.

It must be relatively free of vehicular traffic.

It must meet acreage requirements that vary in proportion to the intensity of use and the density of development in surrounding areas. For example, a half-acre park in a city's center is a true open space, yet a half-acre lot in the suburbs or the country, where building density and intensity of use are low, is merely a vacant lot.¹

¹Jeanne M. Davis, "Getting and Keeping Open Space," A Place To Live: The Yearbook of Agriculture, 1963 (Washington, D. C.: U. S. Government Printing Office, 1963), p. 337.

In determining the value of open space to the society, it is necessary to consider the situation and site characteristics of the land. The rural areas of Michigan have a plethora of open space, while even the smallest tracts of undeveloped land, even without any major vegetative cover, can be highly valuable to an urban community. Open space for our purposes here is a qualitative, rather than purely physical and quantitative term. It is impossible to say how large a piece of land must be to be considered as open space without stating the characteristics of the site and location.

It is possible to divide open space lands into a number of different categories, depending upon the particular theme of the classification system. A resource based classification could be related to the physical characteristics of the land: i.e., mountains, river valleys, lakes, forest, or shore lands. Classification according to the size of the tract might include such categories as: less than 10 acres, 10 to 50 acres, 50 to 100 acres, and so on. A classification based on the most significant use of the open space land will be used in this study.

During recent years many planners have become concerned about our open space needs. Their concern has centered around the need for land suited to recreational use. There has been less attention given to the need for open space for other purposes. For the purposes of this study, open space will be classified into the following five categories: recreation, conservation, influencing the direction of urban growth, aesthetics, and education.

Recreation

Land for recreation is the most commonly accepted, and best known kind of open space use. We are all aware that parks exist, whether they be small city parks, or the largest of the National Parks. Aside from their size, the greatest distinction between parks is in the nature of their use. The wilderness areas are the least used of all, for they are accessible only by trails or aircraft. At the other extreme, the typical metropolitan beach area may be so crowded on a typical summer Sunday that the concept of spaciousness is completely lost.

Each unit in a park system must have its own function, its own validity. The wilderness areas are as important in the total open space scheme as are the crowded beaches. Wilderness represents the legacy of our frontier heritage, while the beach, crowded and unsightly as it may be, still serves a valuable function to its visitors.

Of the more intensively used park lands, those designed to meet the day use needs of metropolitan populations are the most important. In this sense, day use can mean anything from all day activities, to an experience lasting only a few minutes. Perhaps the small parks in the centers of our largest cities are the most important of all. The chance to sit in the shade and eat lunch may be more important to many inhabitants of our cities than a quiet lake twenty miles from home or office. Aside from sitting and quiet walking, the ideal system of parks in the day trip zone would include provision for such activities as swimming, boating,

nature study, picnicking, and team sports. Each type of activity requires somewhat different kinds of land and facilities. Thus if the recreational land needs of the community are to be adequately met, a great variety of lands must be included in these park systems.

Conservation

Flash flooding, soil erosion, and water pollution are land and water management problems closely associated with the growth of metropolitan areas. To a great extent they are conditioned by decisions regarding the provision of adequate open land.

Flash floods may occur as the result of the reduction in the absorbent capacity of the soil and a concomitant increase in the amount of runoff, especially in periods of thaw or heavy precipitation. The cause of the flash flooding that characteristically occurs in our urban areas can be traced back to the patterns of urbanization. Large sections of the landscape have been "waterproofed" thus preventing or reducing the normal processes of infiltration and ground water regeneration. The proliferation of streets, parking lots, and buildings speed runoff into the storm-sewer systems that feed into the already constricted stream channels. The rivers overflow their banks and the developed properties lying in the flood plain receive extensive damage. In other areas, homes built on drained bogs and swamps, or just on low-lying land, are flooded every time the runoff exceeds the capacity of the storm sewers.

Public reaction is, of course, immediate. Action is demanded to

prevent the reoccurrence of floods through the construction of extensive flood control devices. Foresight on the part of citizens, acting through their governmental bodies, could easily have prevented the floods in the first place. No magical control over water and weather is necessary, only a perceptive direction of land use.

If land in the flood plain were left undeveloped and open, the natural sponge-like quality of the soil in most areas could be utilized to reduce downstream flooding. Damage would be minimized since there would be no structures in the flood plain, and the public expense associated with flood control structures could be avoided. Floods represent the most common, and critical example of a severe problem caused by the mismanagement of a resource. Fortunately, it is a problem whose severity can be reduced by an effective open space program.

Selden Lee Tinsley, in the 1963 Yearbook of Agriculture, cites a number of examples that illustrate one of the most severe erosion problems associated with suburban developments.¹ When land is cleared of its original vegetation in order to construct homes, the natural forces holding the soil together may be eliminated. Living sod, or tree roots may have created stability for the terrain. Once the vegetation is removed, the danger of soil slippage and sheet erosion is vastly increased.

The unwise location of homes on poorly drained land has resulted in

¹Selden Lee Tinsley, "Planning for Conservation in the Suburbs," A Place To Live: The Yearbook of Agriculture, 1963 (Washington, D. C.: U. S. Government Printing Office, 1963), p. 391.

problems of ground water pollution. The presence of ill-functioning septic tanks in close proximity to individual wells has often resulted in the condemnation of a family's water supply, and forced them to sell their home. Land, that because of unfavorable soil conditions is not suited to home construction, should remain as open space, at least until the advance of suburbanization brings with it an adequate municipal sewer and water system.

Competition for land between agriculture and the more profitable urban uses is another problem associated with the preservation of open space. Often the promise of higher rates of economic return, as in the case of commercial properties compared with agriculture, will force land to shift to the "higher" use. Land has been shifting out of agricultural uses at the rate of nearly two million acres per year.¹ While all of this land doesn't go for purely urban uses, most of it is devoted to suburban growth and highway building.

While we have no shortage of crop land, and certainly not all the land converted to urban uses can be classed as good crop land, this land conversion does reduce the total supply of open land that is available near many metropolitan areas. Each year the fringe of open land recedes further from the center of the metropolitan area.

There are many cases where specialized agricultural land has been

¹Mark M. Regan and Hugh H. Wooten, "Land Use Trends and Urbanization," A Place To Live: The Yearbook of Agriculture, 1963 (Washington: U. S. Government Printing Office, 1963), p. 62.

encroached upon by suburban development. This has been especially severe in California, where valuable orchard and truck farm land has been converted to urban use. The specialized resource characteristics of this land make its total supply limited, or replaceable only at a great cost. Once converted to urban use the land loses its value as agricultural land and must thus be subtracted from the total supply suited to a specialized crop such as citrus fruit.

Influencing the Direction of Urban Growth

The provision of open space can be of significant value in the directing of future patterns of urban growth. According to the Urban Renewal Administration, the primary objectives in the use of open space for shaping urban growth are as follows:

promote the formation of distinct, cohesive communities which can be served effectively by municipal services and facilities;

define better the boundaries of districts and entire metropolitan areas; and

preserve a natural environment near urban and suburban development to provide relief from extensive urbanization.¹

To meet these goals all classes of open land are useful so long as they have not already been blighted by the effects of approaching urbanization. Parks, conservation preserves, golf and hunting clubs, farm land, and forests are all valuable in efforts to shape the patterns of urban growth.

¹ Ann Louise Strong, Preserving Urban Open Space, The Urban Renewal Administration (Washington: U. S. Government Printing Office, 1963), p. 9.

However, the one critical condition is that the open space use have some degree of security from encroachment or conversion. Of similar importance is the prevention of leap-frogging, a practice whereby a developer uses open land beyond the present fringe of development in order to secure land at a lower cost. This practice is especially attractive when the governmental unit in which the land lies has few subdivision regulations or minimum standards.

Open space can be useful to prevent the formation of continuous urban development such as is now forming between the metropolitan areas of Boston and Washington, D. C. (i.e., the Megalopolis).¹ Bands of farm and recreation land could separate metropolitan districts according to the green-belt concept. Each community could then maintain its own identity.

Two key issues represent the greatest barriers to the continued preservation of privately owned open land in our metropolitan areas. Land taxes are increasingly forcing the abandonment of farms within urban areas. Local assessors are considering such land not in terms of its present value as agricultural land, but in terms of its potential value once developed for an urban use. Few farmers can remain in business with taxes many times greater than paid by their competitors further away from the cities. The highest and best use concept prevails in such a case, with the assessor only acting as a deputy to the compelling effects of the market system.

¹Jean Gottman, Megalopolis: The Urbanized Northeastern Seaboard of the United States (New York: The Twentieth Century Fund, 1961).

This problem will be dealt with again as part of the consideration of the means available for the acquisition and preservation of open space. It is sufficient to say at this point that without responsible local taxing policies, efforts to preserve open land face an additional obstacle.

Aesthetics

The most intangible value associated with open space is the aesthetic. Scientific consideration of these aesthetic values is hardly possible, simply because of their intangible nature. The value of land to Man's psychological and philosophical well being has been discussed by Aldo Leopold, in his A Sand County Almanac,¹ and by the authors of The Crisis in Open Land.² The following brief section presents this author's views of how society has developed most of its metropolitan areas, and on the aesthetic value of open space. It is by necessity a subjective discussion, since the nature of the subject precludes a "factual" presentation.

Expressed in the simplest possible terms, it is important for there to be open land in our metropolitan areas simply because it represents a relief from the architectural monotony of the typical city. Just being able to drive through the seemingly unpatterned and undeveloped country side is enough to renew one's confidence that the universe is still more than a succession of subdivisions and shopping centers.

¹ Aldo Leopold, A Sand County Almanac: And Sketches Here and There (New York: The Oxford University Press, 1949).

² Walter A. Tucker (ed.), The Crisis in Open Land (Wheeling, West Virginia: Park Education Committee of the American Institute of Park Executives, 1959).

Man needs open spaces. We do not know why the sight of the open sky, the soothing quiet of woodland, the breath of a fresh sea breeze or the first view of a majestic natural landscape fills emotional needs which no amount of man-made comforts and conveniences can satisfy.

We do know that, in order to maintain physical and mental health, we must continually renew our contact with nature.¹

The confines of the city tend to be the negation of naturalism, yet open space within the metropolitan area can provide man with a connection to the natural world. There is no necessity for contact with a wilderness, for even the highly developed agricultural lands retain the softness of natural contours, the undulation of the hills, and the acceptable chaos of a fallow field. We need to know that life exists outside of the confines of a street grid pattern. Open space helps us to remember that man was once completely dependent upon the vicissitudes of an indifferent natural world.

In essence, the awareness of our relationship to the land is the philosophical significance of open space. Yet it isn't enough to know that somewhere, perhaps thousands of miles away, there is a wilderness. We need to be able to come in contact with this feeling of openness. We need to have the means of knowing, in an experimental way, that we are merely participants in a larger universe that existed before the arrival of man, and will continue to exist after we are gone. This is the aesthetic and philosophical significance of open space.

¹Ibid., p. 7.

Education

Outdoor education represents an important, yet largely unrecognized part of our total open space needs. Land for educational purposes beyond the simple requirement for building sites and play fields is needed primarily because many of the standard academic subjects take on added meaning when taught in the natural laboratory of the out-of-doors. While there are significant exceptions, most of our school children receive no more than a bare minimum of instruction in situations where the natural environment is used as a deliberate part of the teaching process.

It seems obvious that the natural sciences, local history, and geography, can be better taught using real experiences rather than simulated laboratory and book experiences. It is only logical that the best place to teach children about trees is in a place where trees are to be found. Yet many urban and suburban children can go through twelve years of public schooling without ever seeing a cow, a forest, or an unpolluted river in conjunction with their school program.

The availability of suitable land is one of the conditions necessary for the initiation of an outdoor education program. While the attitude of the teachers, administrators, and parents toward the value of outdoor education is far more critical than the physical supply of land, the land factor assumes growing significance in metropolitan areas where the potential supply of available land is rapidly diminishing.

It is not implied here that the land needed for outdoor education must

be unusually scenic. On the contrary, nearly any open land with a variety of ecological conditions is well suited to educational purposes. It is possible, and this has been the author's experience, that the more spectacular landscapes are too distracting to be of optimum value in education. Children can be so awed by the overall scene before them, that they are less able to concentrate on a study of the parts of the total scene.

Outdoor education is additionally important because there is a fundamental relationship between the quality of individual experiences in outdoor recreation, and the extent to which the participant understands the dynamics of the natural environment. It is because of this relationship that the outdoor education programs, in those schools that have them, concentrate on teaching children how to use the out-of-doors for their own pleasure.

The urbanization of our society has increased the need for outdoor education as well as for recreation. A growing number of children have no opportunity outside of school to experience contact with a natural environment. If these children are ever to have an appreciation of the aesthetic and philosophical values discussed in the previous section, it will have to be the schools that initiate such an appreciation. Those children that have no interest in either aesthetics or philosophy, and there is no reason why they should, must be taught to respect the fragile qualities of open space land.

As in the case of most of the other classes of open space already

discussed, land for education can be the same land that is used for conservation, or recreation, or even agriculture. This is one of the most positive aspects of our open space problem. So long as there is no substantial conflict of uses, we can think in terms of multiple use management in many of our open space lands.

CHAPTER II

OPEN SPACE IN SOUTHEAST MICHIGAN

Purpose of the Study

This study is an attempt to examine the many aspects of the open space question. It proceeds along three main lines. First, it examines the present situation in regard to open space in the southeast part of Michigan. To a certain extent, this region has characteristics in common with other large metropolitan complexes. Population growth has been explosive in the suburban sections of the region, while the central city of Detroit has been declining in population since 1950. The study attempts to determine the degree to which the provision of open space in this region has been adequate to meet the needs of the population.

The second part of the study examines the values and attitudes of local governmental officials in the hope that their responses will give some clue as to the reasons why open space needs are not being met. It is recognized at the outset that ultimate responsibility lies, not with the elected officials, but with the citizens of every community. However, to an extent, it can be assumed that the attitudes of local officials will be a reflection of the feelings of the people that they represent.

Finally, material is presented relating to the means by which the open space needs of local communities can be met. Discussion will be

directed to legal methods of acquiring open space , and to the various ways in which the state and Federal governments can aid local units in meeting their open space goals. The recommendations presented will be those that the author feels must be adopted if the legal and financial means discussed are to be effective methods of providing for open space in southeast Michigan.

Description of the Study Area

Southeast Michigan is dominated by the City of Detroit. The automobile industry is largely responsible for the prosperity of Detroit and, indeed, the entire region. The location of the automobile industry in Detroit area is partially due to historical accident rather than elements embodied in formal location theory. The personal preference of Henry Ford was the most significant single location factor. While Detroit is close to the market, it is somewhat less so than many other cities in the Northeast quadrant of the Country. Without the Great Lakes on which to move the raw materials, and without the mammoth auto industry, there would be no city the size of Detroit in southeast Michigan.

The study area consists of the ten counties immediately surrounding Detroit, and can broadly be defined as the metropolitan area and those areas closely tied to the economy of the metropolitan area. The ten counties are: Genesee, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne. No point in the study area is more than eighty miles from the center of Detroit, and most of the area is within fifty miles. (See Figure 1.)

SOUTH-EAST MICHIGAN – THE STUDY AREA



Figure 1.

Included within the study area is a population of about 4.7 million, or nearly 60 percent of Michigan's total population in 1960. The study area includes 6,600 square miles, less than 12 percent of the state total. Overall population density is 704 per square mile, compared with 137 per square mile for the whole state. (See Table 1.)

The uneven distribution of population in Michigan is obvious from a comparison of the densities of southeast Michigan and the Upper Peninsula. The Upper Peninsula, with 29 percent of the land area of Michigan, has less than 4 percent of the population. This factor of population densities and distributions has a dominating effect upon all of Michigan's open space problems. The land that is physically most suited for recreation, the Upper Peninsula, is too far from the population centers, while much of the land of southeast Michigan is far from well suited for resource oriented recreation. In this respect Detroit's situation is similar to that of many other cities. However, the proximity of Lakes Erie, St. Clair, and Huron should not be minimized in importance as they represent an important recreational resource close at hand. Much of the shoreline of these lakes, within easy travel time of major population centers, is now extensively developed for private use. While such a development is not necessarily undesirable, private ownership and use of recreational resources does tend to exclude low income groups from the use of the resource. Only public development can provide adequate facilities for the use of low income groups. Thus, so long as poverty remains a factor in our society, governmental units will bear the responsibility of providing sites for public recreation.

Table 1. Area and Population, Southeast Michigan Study Area

Counties	Population			Percent Growth 1940-60	Area in Square Miles	Number per Square Mile	Percent of State's Population - 1960
	1890	1940	1950	1960			
Michigan totals	2,093,889	5,256,107	6,371,766	7,823,194	48.8	57,019	100.0
Genesee	39,430	227,944	270,963	347,313	64.2	643	4.4
Lapeer	29,213	32,116	35,794	41,926	30.5	657	0.5
Lenawee	48,448	53,100	64,629	77,789	46.5	754	0.9
Livingston	20,858	20,863	26,725	38,233	83.3	571	0.5
Macomb	31,813	107,638	184,961	405,804	277.0	481	5.2
Monroe	32,337	58,620	75,666	101,120	72.5	562	1.3
Oakland	41,245	254,068	396,001	690,259	171.7	877	8.8
St. Clair	52,105	76,222	91,599	107,201	40.6	740	1.4
Washtenaw	42,210	80,810	134,606	172,440	113.4	716	2.2
Wayne	257,114	2,015,623	2,435,235	2,666,297	32.3	607	34.1
Ten County Totals	594,773	2,927,004	3,716,179	4,648,382	58.8	6,608	59.4

Source: U. S. Bureau of the Census, U. S. Census of Population: 1960. Number of Inhabitants, Michigan. Final Report PC(1)-24A (Washington: U. S. Government Printing Office, 1961). Data on population in 1890 derived from earlier Census reports. Data in columns 5, 7, 8 was computed by the author from published Census reports.

With the exception of the lakes mentioned above, there are no outstanding recreational resources within the day trip zone of the study area. Most of the land is either within the Erie-St. Clair Plain, or the Thumb Upland physiographic province of the state. Overall topography is level to gently rolling moraine with only a few areas where the moraine formed hills of any size.

Within the study area, the acreage in farm land varies considerably from an expected low of 22 percent in Wayne County to a high of 89 percent in Lenawee County. Lenawee, along with three other counties, Huron, Clinton, and Gratiot has the highest percentage of land in farms of any county in the southern half of the lower peninsula. There are many counties in the northern part of the state with lower farm acreage, but in such cases the land is in non-farm forests, rather than in urban developments as in Wayne County.

Non-farm forests comprise a relatively small portion of the land in all counties of the study area. The largest percentage of forest lands is in Oakland County, 19 percent, while Monroe has the lowest with only 4 percent of all land in non-farm forests.

Land that is neither in farms nor forests comprises only 6 percent of Lenawee County, and this county represents the most rural portion of the study area. Non-farm and non-forest land accounts for 71 percent of Wayne County, and it is the most urban county in the study area, and in the state. It can be concluded that nearly 30 percent of Wayne County is

non-developed land and thus, statistically at least, still open land. However, the bare statistical formulation disguises the extent to which small parcels of open land may be surrounded by developed land. The open space land can be considered as blighted in that its intrinsic value has been significantly reduced.

The main streams draining the study area are the Huron, the Clinton, and the River Raisin. The northern part of the area in Genesee, Lapeer, Livingston, and Oakland Counties is drained by parts of the Saginaw River system. While the courses of these rivers flow through rather unspectacular glacial topography, they nonetheless represent an important regional attraction, and the Huron-Clinton Metropolitan Authority has oriented its park developments to the rivers.

There is an extensive morainal belt running diagonally through the area from the northeast to southwest, primarily in Lapeer, Oakland, and Washtenaw Counties. This belt contains numerous lakes and the most hilly topography in the area. Much of the land held by the State Conservation Department is found in this belt, and there have been considerable recreational developments here. A number of the parks of the Huron-Clinton Metropolitan Authority are also located in this belt of hills and lakes.

In summary, it can be noted that the study area has a wealth of water suitable for recreational use. The more spectacular scenic features are missing from the area. This factor, however, does not in any way negate

the value of the open space resources of the area. Recreation is the only one of the open space uses discussed in the introduction that demands the unusual. For agriculture, land use direction, and conservation, the level and rolling lands of the area are well suited.

The Demand - Factors of Growth

We have seen that the study area as a whole is highly urbanized. We noted that while the natural resources of the area were far from spectacular, they were nonetheless adequate to meet most of the open space needs, and even adequate to meet the daily and weekend recreational needs of the population. The resources are there, the need can be, and to some extent is being met.

We noted earlier that the demand for outdoor recreation, and indeed all open space used is increasing at an alarming rate. As noted by the Outdoor Recreation Resources Review Commission in their Outdoor Recreation for America, the increase in demand is due not only to an overall increase in the numbers of Americans seeking outdoor experiences, but also in the changing characteristics of the population. They consider as the factors most affecting demand: age, income, education, occupation, and family structures.¹ To these can be added the overall effects of the automobile, and the more intangible effects of cultural changes.

¹Outdoor Recreation Resources Review Commission, Outdoor Recreation for America (Washington: U. S. Government Printing Office, 1962), Chapter II.

The Detroit region has not been immune to any of these factors, so it may be of some value to examine the manner in which they have affected the demand and need for open space in the study area. The example of Detroit may have some relevance in the study of national metropolitan needs.

Population - Size and Growth

It was noted earlier that 60 percent of the population of Michigan resides within the ten-county study area. This area has not always represented so large a portion of the population of the state. Rather, there has been a steady increase in the proportion to the ten-county area in spite of a rapid increase in populations throughout the state.

In 1890, the study area accounted for 28.4 percent of the state's population; by 1960 this figure had increased to 59.4 percent. According to the population projections of J. F. Thaden, by 1970 these ten counties will have more than 61 percent of the total.¹ If we exclude from these calculations the three counties in the study area that have remained largely rural, we find that the seven remaining counties have increased their proportion of the total from 23.7 percent in 1890, to 57.5 percent in 1960. Lapeer, Lenawee, and Livingston Counties when taken together now comprise only 1.9 percent of the state's total as compared with 4.7 percent in 1890. Thus in terms of the growth of the entire state, these three counties have had a considerable relative decline in population.

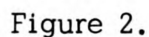
¹J. F. Thaden, Population of Michigan Counties (East Lansing: Institute for Community Development, Michigan State University, 1962), p. 47.

When recent population growth figures are studied it is apparent that growth rates have been quite uneven within the study area. During the period 1940-1960, some townships have shown practically no increase in population, while others have experienced increases as high as 300 percent over the twenty-year period. (See Figure 2.)

There are fifteen townships in which the population has increased less than 10 percent in the last twenty years. All of these townships have overall population densities of less than fifty persons per square mile. In two of these townships the density is only twenty per square mile. (See Figure 3.)

While it is significant to note that population growth is not even in any area, the discussion of low rates of growth should not be permitted to obscure the overall trend, which in this case is of rapid and substantial increase. The areas of low growth and low density are most significant in this study because they may represent the areas that can meet future open space land needs. The establishment of an open space use in such areas would result in a minimum of conflict since these lands are already primarily open space.

If all other factors of demand are held constant it can still be assumed that demand for outdoor recreation increased by 60 percent between 1940 and 1960. Population increase alone accounts for this minimum figure. However, population growth is but one of the many factors affecting the demand for recreation and other open space land.



The age structure of the population has a great effect upon the demand for open space. It should be noted that the median age of the nation's population is increasing each year as medical technology prolongs the life of our older citizens. Everywhere in the nation the overall trend has been for an increase in that portion of the population that is over sixty-five, the traditional point of retirement from the labor force. Rural areas and the centers of our large cities are increasingly inhabited by the elderly. Our youngest populations are found in the areas of greatest population expansion and growth, the suburbs. Thus it can be noted that while about 9.5 percent of the population of the rural counties in the study area (Lapeer, Lenawee, and Livingston) is over sixty-five, in predominantly suburban Oakland and Macomb Counties, the average figure for those over sixty-five is about 5 percent of the total. In Wayne County 8.0 percent are over sixty-five, a figure close to the state average of 8.2. However, when we separate the City of Detroit from the balance of the county we find that 9.5 percent of the population of Detroit is over sixty-five and only 5.6 percent of those in the balance of the county.

In Detroit, where 29.2 percent of the population is non-white, we find that the white population has far more persons over age sixty-five than does the non-white group. Life expectancies are lower for the Negro population, and infant mortality rates are higher than for the white population. In addition, a fairly large portion of the Negro population of Detroit are recent migrants from rural areas. The combination of health conditions

and high migration rates are responsible for the fact that only 4.4 percent of the Negroes of Detroit are over sixty-five, while 11.6 percent of the whites are over sixty-five.

The point of greatest significance here is that age has a great bearing upon the types of recreational activity in which a person can be expected to participate. Older citizens are less active and need less extensive areas of land. They engage more often in the more passive activities such as sitting and walking.

The relative youth of the suburban populations is reflected in the median age of the population. Median age for Detroit is 33.2, while for suburban Macomb County it is 24.8. When the white and non-white groups of Detroit are compared with reference to median age we find that predictably the whites are a far older group than the non-whites, with median ages of 36.4 and 26.4 respectively.

We find that when the relative size of the 20-44 age group is compared that again Macomb reflects its suburban character along with Oakland and Genesee Counties. In a suburban area we would expect to find this age group to be quite large as a reflection of those most recently arrived from the city or the country. In Macomb County 36.4 percent of the population is in this age group, while the more rural counties average less than 31 percent, and the white population of Detroit only 30.2 percent. It is this group along with their young children that create the greatest pressure on recreational facilities.

Table 2 shows some selected population characteristics.

Table 2. Selected Population Characteristics - 1960 - in the Southeast Michigan Study Area

County	Median Age	Under 5 Years-%	20-44 Years-%	Over 65 Years-%	Median		% Less 5 Years	% College Graduates	Median Family Income - \$
					Years	School			
Genesee	26.1	14.1	33.6	6.2	10.8	10.8	4.4	5.0	6,340
Lapeer	26.7	12.0	31.0	9.4	9.7	9.7	12.5	3.8	5,282
Lenawee	26.6	11.9	30.8	9.4	11.1	11.1	4.4	6.0	5,699
Livingston	27.0	12.8	29.9	9.5	11.1	11.1	2.7	5.6	5,775
Macomb	24.8	15.9	36.4	4.3	11.1	11.1	4.2	5.1	7,091
Monroe	25.7	13.2	31.4	7.3	9.5	9.5	6.0	4.7	5,892
Oakland	26.8	13.5	33.8	5.5	12.1	12.1	3.2	11.2	7,576
St. Clair	28.4	12.0	29.1	10.0	10.1	10.1	5.0	4.6	5,546
Washtenaw	25.1	11.6	38.7	6.9	12.3	12.3	3.4	20.5	6,890
Wayne	30.8	11.6	32.9	8.0	10.5	10.5	7.8	6.1	6,597
Michigan	28.3	12.4	32.2	8.2	10.8	10.8	5.8	6.8	6,256
United States	29.5	11.3	32.2	9.2	10.6	10.6	8.3	7.7	5,657

Source: U. S. Bureau of the Census, U. S. Census of Population, 1960. General Population Characteristics and General Social and Economic Characteristics, Michigan. Final Report PC(1) - 24B,C (Washington: U. S. Government Printing Office, 1962).

Income

Marion Clawson has written that "the ability to afford recreation, hence the interest in it, depends in large part upon the income level of the persons concerned."¹ Income is an important factor in determining the demand for open space. Clawson has noted that increased income often leads to increased expenditures for outdoor recreation. "If average personal incomes rise over an extended period of years it is fairly certain that the percentages spent for recreation will rise also."²

An examination of median family income in the study area reveals that the families in the suburban counties of Macomb and Oakland have the highest incomes, in both cases well above the state average of \$6,256. In contrast, the rural counties all have incomes below the state average, with the median family income in Lapeer (\$5,282) being the lowest in the study area. Differences between communities and between urban, suburban, and rural areas are great. Median family income for the rural-farm population of St. Clair County is \$3,961. The opposite extreme is represented by Grosse Pointe Farms, where median family income is \$13,119, and 42 percent of all families have incomes above \$15,000. Only 3 percent of all families in the city of River Rouge have incomes exceeding \$15,000. While there is admittedly great income variation throughout the study area, the overall trend has been for incomes to increase both absolutely and relatively over the period covered by the last few decades.

¹ Marion Clawson, The Dynamics of Park Demand (New York: Regional Plan Association, 1960), p. 14.

² Ibid., p. 15.

While median family incomes were increasing 74 percent for the entire state between 1950 and 1960, six of the ten counties in the study area had growth rates higher than that. Washtenaw County led all others with an increase of over 100 percent during the ten year period. However, it should be noted that in only four cases was the growth rate higher than the national average of 83.5 percent. It is significant to note that over the ten year period, Michigan has experienced a relative decline with respect to median family income for the nation as a whole. Income levels in Michigan are still above national levels, however, so that the median family income is 110.6 percent of the national total.¹

When the effects of inflation are examined it can be seen that real income has increased less than gross income. With the 1957-59 period as the base, the Consumer Price Index for 1949 was 83.0. By 1959 it had risen to 101.5, and by March 1963, to 106.2. The purchasing power of the dollar, based on consumer prices, had declined from 119.8 in 1949 to 98.5 in 1959, and 94.9 in 1962. In addition to price inflation, the rise in taxes has resulted in a further reduction in the increase in real incomes. In 1950, 91.6 percent of aggregate family income remained after the payment of taxes. By 1961 this total had declined to 89.8 percent. Fortunately, the increase in the availability of governmental services has, in many cases, more than made up for increased taxes.²

¹Computed from, U. S. Bureau of the Census, U. S. Census of Population: 1960 - General Social and Economic Characteristics, Michigan. Final Report PC(1)-24C (Washington: U. S. Government Printing Office, 1962).

²U. S. Bureau of the Census, Statistical Abstract of the United States: 1963, 84th Edition (Washington: U. S. Government Printing Office, 1963).

It should be emphasized that real personal income has increased, and that it is reasonable to conclude that expenditures for recreation have likewise increased since the end of World War II. Income increases have been greatest in the suburban areas. Even farm income has begun to approach the levels of the non-farm population, primarily because of the reduction in the number of low income marginal farms over the past fifteen years, and because of the increasing number of farmers who carry an industrial job in addition to farming.

Education

Recreation and outdoor play has always been associated with our schools. As our appreciation of outdoor recreation increases it is natural that the need for land to be used for education must increase. In addition, the attitudes arising from this educational experience lead to a greater participation in all outdoor activities. This point of view was expressed by the authors of the ORRRC Report. "Education affects participation much as income does; generally speaking, the more of it they have, the more active adults are likely to be."¹ This finding was based upon the research done by Mueller, Gurin, and Wood, as reported in ORRRC Study Report 20, Participation in Outdoor Recreation: Factors Affecting Demand Among American Adults.² They concluded that while education correlated to a

¹ Outdoor Recreation Resources Review Commission, op. cit., p. 28.

² Mueller, Gurin, and Wood, Participation in Outdoor Recreation: Factors Affecting Demand Among American Adults, Outdoor Recreation Resources Review Commission Study Report 20 (Washington: U. S. Government Printing Office, 1962), Chapter II.

high degree with other socio-economic factors, when held as a separate variable, the level of education did affect participation levels in outdoor recreation. The greater the education, the greater the participation.

The 1960 Census reveals that educational levels for adults were higher in the two most suburbanized counties (Macomb, and Oakland) of the ten in the study area. In both of these counties, the level was well above the state average. In Macomb the median number of school years completed by all persons over twenty-five was about 11.0, while in Oakland it was 12.0 years. Only two counties in the state have higher levels of education according to this Census measurement. Both Washtenaw and Ingham Counties have levels slightly above the Oakland County figure. In both cases, the students, faculty, and administrative personnel of large universities are responsible for the high educational level of the county. The lowest average educational levels are in the most rural of the study area counties; Lapeer, Monroe, and St. Clair, and in the City of Detroit. Educational levels in Detroit have been undergoing a relative decline in comparison with those of the rest of Wayne County.

Further examination of the Census data reveals that educational levels have considerably improved over the past two decades. In 1940, the median number of school years completed by all persons over twenty-five in Michigan was 8.7: by 1960 this figure had increased to 10.8, an improvement of over two years of schooling for the adult population. The greatest improvement in the study area has occurred in the suburban counties

and in Washtenaw County. In these three counties the improvement over the twenty-year period was greater than the state average. In the other seven counties in the study area, improvement was below the state level. But the fact that the median number of school years in no case increased less than 1.2 years over the period, is a conclusive testimony to the improvement of our educational systems, even if the improvement is not uniform in all areas. In some measure, the slow improvement in rural counties can be attributed to the outflow of the most able youth of the counties.

The substantial decline in low education individuals has had an effect upon the demand for recreation, and the continuing improvement in education can be expected to further increase demand. Demand for parks must be considered as increasing, not arithmetically with the growth of population numbers, but geometrically with the dynamic changes in our society.

Leisure Time - The Work Week

Outdoor recreation requires time as well as money for its enjoyment. When man was forced to work from daylight to dark seven days a week merely to feed, clothe, and house his family, he had no time for outdoor recreation, no energy for such limited moments as he might have found time for, and no money to use for even the most simple requirements of recreation.¹

The advent of the shorter work week has altered this situation and each further reduction in the hours worked results in an increase in the potential time available for leisure time pursuits, of which outdoor recreation is but one. The reduction in work time has affected not only the wage

¹Clawson, op. cit., p. 19.

earner, but the housewife as well. The introduction of the multitude of labor-saving appliances has to a great extent freed the housewife from the traditional drudgery of housework.

Concurrent with the gradual decline in the work week has come the paid vacation for the majority of stable workers, whether salaried or wage workers. It is significant that the higher paid workers and those with better educations tend to have longer vacations, so that demand for facilities is again multiplied by a geometric factor.

It is difficult to know whether the work week will continue to shorten for the trend in the past few years has been toward stability in hours worked. The recent figures seem to indicate that fluctuations in the work week are more related to the overall health of the economy than to any overall trend in declining hours. When the trend for "Average Weekly Hours for Production Workers in Manufacturing Industries" is studied, it can be seen that in the State of Michigan there has been little consistent change in the period 1950-1962.¹ The 1950 average was 41.5 hours, and the 1962 average 41.2 hours. While this appears to be a slight decline over the period, variation during this same period resulted in weekly averages as great as 42.3 in 1955, and as low as 39.5 in 1958, a recession year.

Over the past fifty years the most significant changes in the work week as it effects recreational demand have been the annual paid vacation and the elimination of Saturday as a work day for most workers. The worker

¹U. S. Bureau of the Census, U. S. Statistical Abstract, various editions (Washington: U. S. Government Printing Office).

and his family is now free to engage in weekend recreational activity, and a more elaborate and expensive vacation trip.

Mobility - The Automobile

Around 1900 the average American traveled 500 miles annually. By 1955, largely because of the automobile, this figure rose ten times to 5,000 miles per year. A further increase to 7,700 miles is expected by 1985.¹

While it is impossible to determine exactly what portion of this vast amount of travel is connected with outdoor recreation, it can safely be assumed that the speed and ease of automobile travel has made many recreation areas accessible to the average American, where once they were the exclusive domain of the rich. However, the concern here is not with the distant recreation lands suitable for long vacations, but with those areas of recreation potential that are within a two-hours drive of the inhabitants of the metropolitan sections of our nation.

Here the automobile has been no less important, as can easily be seen by the crush of traffic leaving the cities on a summer weekend. In commenting on increased mobility, Clawson notes the following:

This willingness to move about and the ability to do so have both affected outdoor recreation. In the first place, they have greatly increased the supply of outdoor recreation areas available to the individual. Where he was once limited to those areas to which he could walk, or to those along public transportation routes convenient to him, now his circle of potential spots has widened enormously. He is likely to have a car and can go relatively cheaply to any location within a considerable radius.²

¹Clawson, op. cit., p. 2.

²Ibid., p. 24.

The location of recreation areas is greatly affected by their proximity to good transportation, for if the area is difficult to reach, then the intended park users may find it too costly in terms of time to use the facility. So it is that we find many of the most popular recreation areas close to major roads as in the case of the parks of the Huron-Clinton Metropolitan Authority. And so it is also that an increasingly large portion of our recreation areas must be set aside on which to park the automobiles of the people who are using the facility.

The number of passenger vehicles owned by the people of the study area is staggering, 1,725,784 in 1961, or one car for each 2.69 persons. Since the average family size is about 3.5 persons it is clear that many families own more than one automobile. Oakland County has the fewest persons per automobile, 2.46 in 1961.

Cultural Change

The changes in population size, age structure, income, education, leisure time, and mobility have had a cumulative effect upon our entire culture. The recreational activities that once were associated with the rich are now available to the majority of the population. Golf and boating are two prime examples of rich men's sports turned into activities for the "common man." In many areas where recreational facilities are inadequate the golfer must wait hours to get his turn on the course, and the private Country Club, once the exclusive domain of the wealthy is now increasingly open to anybody who can afford the cost. Even the religious, nationality

and racial barriers are beginning to be removed, however slowly.

Many quiet-loving fishermen have seen their favorite places disturbed by outboard enthusiasts, each sailing across the lake or river in ever more powerful boats. The power boat pressure has been so great that some privately-owned lakes have begun to restrict the size and the times during which the power boats may be used, the balance of the time being reserved for the lover of peace and quiet.

As the natural frontier vanishes, Americans are becoming increasingly interested in returning to nature on camping trips. Some people actually abandon the relative comfort of the trailer and tent and take to the huge wilderness areas. It seems that only after we had lost most of our wilderness were we interested in knowing what was lost and gone. So it is that we are suddenly actively trying to preserve what remains of the wild ocean and lake shorelines. We have come full circle back to the romantic ideal of the beauty of wilderness. Most of us don't yet know quite what to do with wilderness, but at least we seem to want it to continue to exist.

Conservation

In addition to the great increases in demand for recreational land that we are presently experiencing, and will continue to feel for decades, there is a concurrent growth in the need for open land for conservation purposes. Increases in population and per-capita water consumption levels makes the preservation of our water resources absolutely necessary. Trends that may impair the quantity or quality of our water are looked on with more

disfavor than ever before. As discussed earlier, the waterproofing of our cities and the pollution of our streams represent grave threats to water supplies. Land and water conservation are closely interrelated.

Concepts of wise use suggest that agricultural activities on good land that holds a large transportation cost advantage over similar lands further from the market should be preserved in their present use, especially when by so doing soil and water conservation needs are met and scenic and aesthetic values are preserved. Especially important in this category of agricultural lands would be dairy and truck farms, and the already mentioned orchards of California. So long as tax burdens don't become too great, the farmer near the market can profit from his locational advantage. It is significant to note that median family income for rural farm families in Wayne, Oakland, and Genesee Counties, all highly urban in character, are among the highest in the state. No county without a large urban population has farm incomes as high as the urban counties of Michigan. Median family farm income in Wayne County is the highest in the state at a figure of \$6,411 in 1959. There are only seven counties in the state where median family income for the entire population exceeds farm income in Wayne County. Agricultural land in urban areas is highly profitable, and when the additional social values are considered, agriculture may well be the highest and best use for such land. More will be said later about the role of taxes in the preservation of suburban agricultural land.

Outdoor Education

The tremendous growth in the school age population since about 1950 has created a potential demand for a great deal of land for outdoor education. This demand is especially great since it represents more than just the additional children of the "baby boom," but the backlog of schools that have not as yet initiated any regular outdoor education program into their curriculum. As the survey of township supervisors will show, most communities have no outdoor education programs, and even the officials of local government have little understanding of the importance and value of such a program.

While outdoor education can be carried on using land already allocated for recreation or conservation, there are many cases where the schools will need a separate facility to reduce competition with other users and to ensure the presence of the type of land and facility most desirable to meet educational purposes. In addition, when using land set aside for other reasons, part of the cost can be allocated to the schools in proportion to the value that the land has for the educational program. There is no legal reason why the schools cannot pay for services received, especially in those areas where tax monies are far from abundant. Furthermore, the provision of facilities may be dependent upon cooperation between the various units within the local government. The need for new outdoor education centers is tremendous. This fact becomes obvious when we note that where such facilities do exist they are inevitably used to capacity,

and yet only a small fraction of all school children ever get the opportunity to attend a school camp. If we are to provide outdoor education for all of our children, then the total amount of land used for outdoor education must be increased to a considerable degree. Fortunately, outdoor educational activities can take place on land that is utilized during the summer for recreational purposes.

The Facilities

It has been demonstrated that a large and expanding demand exists for recreation and other open space land in Southeast Michigan. Before beginning the discussion of how these needs may be met in the future, it may be useful to present at this point, a brief inventory of what land is already available as public open space.

There are no federally controlled forest or park lands in the study area. While there are extensive National Forest lands in Michigan amounting to over 2-1/2 million acres, almost all of this acreage is found north of the Muskegon-Bay City line separating Michigan into its northern and southern segments, and they are beyond the effective reach of many of those interested in day trip activities. None of the 3-1/2 million acres of State Forest land is within the study area.

Thus in terms of the greatest portion of the public's need, the six million acres of publicly owned forest land in Michigan is inaccessible. Michigan's lone National Park is so distant and inaccessible for most residents of the state, that it is little more important to the residents of

Michigan than the geographically more distant National Parks of the West. With National Forest and Park lands excluded, what then is available in the way of public open space in southeast Michigan?

State-Owned Lands

State-owned open space falls into four categories in southeast Michigan: parks, recreation areas, game areas, and wildlife areas. In only two of these, parks and recreation areas, is there any development for intensive recreation use. The state game and wildlife areas are best suited to the relatively extensive types of activities; hunting, fishing, nature study, and hiking.

There are four independent state park units located in the study area. They include a total of 2,600 acres, half of which is in St. Clair County, in the Lakeport and Algonac State Parks. There are about 600 acres in each of the other two parks, Hayes State Park in Lenawee County, and Sterling-Monroe State Park in Monroe County. There are a number of other state park units in the study area, but they shall be considered as part of the state recreation areas within whose boundaries they lie (see Table 3).

There is a substantial acreage of state recreation areas within study area. Including their associated state parks, 59,300 acres are available to the public, or about 12.8 acres per 1,000 in the population. Over 90 percent of this total is found in three counties, Oakland, Livingston, and Washtenaw. These recreation areas roughly coincide with the chain of glacial lakes described earlier. There are no state-owned recreation

areas or parks in all of Wayne and Genesee Counties, while Macomb has only one small state recreation area.

Table 3. State-Owned Open Space Land in Southeast Michigan Study Area

Counties	State Parks	State Recreation Areas	State Game Areas	State Wildlife Areas	Totals
Genesee	-	-	-	-	-
Lapeer	-	4,663	6,734	-	11,397
Lenawee	654	-	512	-	1,166
Livingston	-	17,002	4,226	770	21,998
Macomb	-	902	-	-	902
Monroe	623	-	4,836	-	5,459
Oakland	-	20,981	-	-	20,981
St. Clair	1,352	-	6,070	6,512	13,934
Washtenaw	-	15,747	2,904	-	18,651
Wayne	-	-	-	-	-
Ten County Total	2,629	59,295	25,282	7,282	94,488

Note: The borders of the state recreation areas extend across county lines, and therefore an attempt was made to include all acreage of the recreation area in the totals for that county in which it mostly lies.

The state game and wildlife areas, while not suited to intensive recreation use, are important open space land because of their conservation value. The twelve game and wildlife areas currently include about 32,500 acres in six counties of the study area. Nearly 60 percent of this total is in Lapeer and St. Clair Counties, the remaining acreage being in Lenawee, Livingston, Monroe, and Washtenaw Counties.

The land actually included within the boundaries of the game and wildlife areas is substantially greater than the total actually under state ownership. The remaining lands, amounting to nearly 37,000 acres will

gradually be purchased by the State Conservation Department as funds become available through the administration of the Pittman-Robertson Act.

State-owned open space in the study area amounts to a total of 94,500 acres, or about 20 acres per 1,000 in the population. The latter figure is used to measure the relative adequacy of the open space resources of an area, and should be compared with norms created establishing minimum open space requirements. An average of ten acres per 1,000 of the population is often considered as the rule of thumb minimum for local parks and recreational areas for urban areas.¹ While there is no established norm for all day recreation areas a minimum figure would probably not be less than the ten acres needed for local use. This would indicate that at least twenty acres per 1,000 people are needed to meet the recreational needs in the day trip zone of any large urban concentration. The Regional Plan Association of New York, in The Race for Open Space, indicates that the minimum standard for local and day use areas should be twenty-two acres per 1,000 of the population.² This standard does not include areas necessary for conservation purposes, or for non-park open space within urban communities. The largely undeveloped open space of the state game and wildlife areas is well suited for conservation and educational uses, but cannot be considered as part of the intensive recreational areas. Thus in attempting to determine how closely the open space resources of the study

¹Ibid., p. 30.

²Regional Plan Association, The Race for Open Space (New York, 1960), pp. 29, 43.

area approximate the established minimum standards of the state lands, only the park and recreation areas should be included. A total figure will be established by including recreational open space owned by the state, the Huron-Clinton Metropolitan Authority, county governments, and the municipalities.

Huron-Clinton Metropolitan Authority

The Huron-Clinton Metropolitan Authority represents a unique example of the result of local governmental cooperation to meet a need whose magnitude and dimensions extended beyond the boundaries of any one governmental unit.

Named after the two longest rivers within its boundaries, the Authority's major endeavor is the preservation for public use of the scenic beauties and recreational resources along the Huron and Clinton Rivers, as well as the creation of large public parks, located strategically with respect to population trends in areas with adequate natural features and with the least disruption of existing land use.¹

The Authority is governed by a Board of Commissioners who represent each of the five counties included in the Authority and two Commissioners representing the Governor. The Authority is independently financed through a limited one-quarter mill tax levy. According to the legislation that authorized the establishment of the Authority in 1940, the Authority has many of the same powers held by other local governmental units. They may levy a tax, issue revenue bonds, and exercise the condemnation power in order to acquire lands.

¹Huron-Clinton Metropolitan Authority, Tenth Biennial Report (Detroit, Michigan, 1961), p. 5.

The Authority currently owns and operates 16,883 acres of land, all within the five county areas of its jurisdiction (Wayne, Macomb, Oakland, Washtenaw, and Livingston). They are actively pursuing a program of land acquisition, having recently completed purchase of more than 1,000 acres as part of the Lower Huron Metropolitan Park. Federal aid funds under the Open Space Land Program accounted for 30 percent of the acquisition costs. The Authority's parks offer a great variety of landscapes and facilities with the intention of meeting the needs of the users. Metropolitan Beach in Macomb County, on Lake St. Clair is an intensively used facility with parking accommodations for 7,500 cars, with fifty-five acres of sand beach along one and one-quarter miles of the lake front. Kensington Metropolitan Park contains an extensive natural areas as well as a large artificial lake of 1,200 acres. Other units are well suited to family use for picnicking and simple relaxation in a natural setting. Most of the parks are well situated in terms of the population centers and road system of the area. There is direct access to Kensington Metropolitan Park from the limited access I-96, while the Lower Huron Park is close to I-94. In many respects the parks of the Huron-Clinton Metropolitan Authority serve the same function as those of the Michigan Conservation Department, except that there has been more intensive development of the Authority's land, and they are closer and more accessible to the population. While several of the Authority's parks are of a local use nature, most of the land of both of the agencies discussed is devoted to day-use activities.

County and Municipal Parks

Provision of day-use areas falls properly to the local governmental units, the counties, townships, and municipalities. It is these units that have primary responsibility for the provision of the standard ten acres per 1,000 of the population. With few exceptions, they have failed to reach this goal. The reasons for failure are complex, but not the least of which is the willingness of local officials to let some other, and in most cases larger, unit of government do the job. Failure to realize the need or just plain unconcern are closely related elements of the problem. In many of our larger cities, society is grateful that somebody had the foresight to preserve park lands that now lie within the heart of the city. Central Park in New York, the Boston Commons, and Washington's Rock Creek Park are prime examples of such foresight. Even with such examples of open space preservation, the great settlement density of our larger cities has precluded the possibility of providing adequate recreation space within the city. While some land may be rededicated to park use through the process of urban renewal, this is a prohibitively expensive way of correcting the mistakes of the past. There are 35,000 acres of park land within the City of New York, yet on the basis of acres per 1,000 in the population, the parks of New York are inadequate. (See Table 4.)

The same situation exists in Detroit where 6,000 acres of park represents only about three and one-half acres per 1,000 people. The densely settled enclave of Hamtramck has only sixteen acres in parks, or one-half

Table 4. Municipal Park and School Recreation Total Acres, and Acres per 1,000 of the Population in the Southeast Michigan Study Area

Population of Cities	Park Acreage	Acres per 1,000	Acres School Recreation	Acres per 1,000	All Open Space	Acres per 1,000	Population Totals
0 - 9,999	100	1.45	361	5.22	461	6.67	69,200 (14)
10,000 - 19,999	190	2.03	149	1.59	339	3.62	93,600 (6)
20,000 - 49,999	1,334	2.91	721	1.57	2,055	4.48	458,700 (15)
50,000 - 200,000	4,460	6.80	1,318	2.01	5,778	8.81	655,600 (7)
Detroit	5,831	3.49	275	0.16	6,106	5.14	1,670,100 (1)
Ten County Totals	11,915	4.04	2,824	0.96	14,739	5.00	2,947,200 (43)

Source: Data extracted and computed from - George D. Butler (ed.), Recreation and Park Yearbook, 1961 (New York: National Recreation Association, 1961).

Note: The number in parentheses following the final column on Population Totals indicates the number of cities included within the particular category.

acre per 1,000 persons. The cities of Dearborn and Southfield are the only municipalities within the Detroit area that meet the minimum standard of ten acres of local parks for every 1,000 persons. Dearborn has 1,200 acres of park for its population of 112,000 and Southfield has 360 acres, or 11.4 acres per 1,000 of its smaller population. A number of other cities in the area approach the minimum standard, but unless they continue their land acquisition programs the steady growth of population will reduce the ratio of park land to population. Pontiac and Flint are in this group, with 8.8 and 7.8 acres per 1,000 respectively. With the exception of three small county parks there is no other public open space in Genesee County, and thus it seems unlikely that in the absence of other recreation land, the parks of Flint can adequately serve the people of the city.

According to the statistics provided in the Recreation and Park Year-book, forty-five cities within the study area have an aggregate total of 11,900 acres in park land and an additional 2,900 acres in school recreation areas.¹ The total population of these forty-five cities was 2,947,200 in 1960. Municipal park acreage in these cities amounts to four acres per 1,000 people. With the few exceptions already mentioned, the local recreation areas of the cities of the Detroit area are clearly not adequate for present needs, and the rapid growth of suburban populations will only result in a further decline in the ratio of open space to the population.

Of the ten counties in the study area, only Wayne County has a significant

¹Ibid.

amount of county owner park land. The nine Wayne County Parks comprise nearly 4,400 acres. Most of this acreage, about 75 percent of it, is included in the Middle and Lower Rouge Parkways, the larger of the two, the Middle Rouge Parkway, extending for seventeen and one-half miles along the river. Since the Wayne County Parks are situated in highly developed parts of the County they serve as local recreation areas for the residents of the unincorporated areas and the cities through which the river flows.

There are no county parks at all in Lenawee, Livingston, Macomb, and Oakland Counties, and one each in Lapeer and St. Clair Counties. There are two county parks in Washtenaw, and the three already mentioned in Genesee County. Monroe County's only park is a joint venture with the City of Monroe.

Since the beginning of the Open Space Land Program of the Urban Renewal Administration there have been five grants made involving cities in the study area, involving nearly 1,200 acres and Federal cost sharing grants of 20 or 30 percent, and \$374,000. In the largest of these grants, the City of Ann Arbor is scheduled to buy 946 acres on the Huron River, providing for a doubling of all public open space owned by the city. The details and principles involved in the Open Space Land Program will be discussed in the section on Federal Aid Programs in Chapter V.

When all classes of public open space are included: state, county, municipal, and Huron-Clinton Metropolitan Authority, there appears to be a total of about 130,000 acres of land involved, or 28.0 acres per 1,000

in the population. Excluding the extensively used State Game and Wildlife Area, there is still an impressive total of 97,500 acres, or 21.0 acres per 1,000 persons. If these lands were all adequately developed and advantageously located then it could be said that there were sufficient recreation lands to meet present needs. However, as it has been shown, the region is most lacking in that form of recreation land that is most sorely needed, mainly the local area that is accessible enough to be used daily. The 36,000 acres of private hunting clubs in the study area will not relieve to a significant extent the pressure for a quiet place to rest the body, mind, and spirit in the city. However, golf courses, and other private recreation areas do relieve the pressure on publicly owned open space. The vexations of automobile travel to the recreation areas on the fringe of metropolitan areas are sufficient to deter many families from the effort. Low income groups in the population, and specifically the Negro population of Detroit, may find it difficult even to find the money or means for transportation to reach the larger parks of the area. They are left with the choice of either crowding into the smaller local parks or just doing without. While it seems clear that the problem of local recreation areas is the most critical, it is also the most elusive and difficult to solve. As we shall see in the next section, the most ambitious programs for expansion of open space are centered around the day use areas, and not the local areas.

Plans for the Future

The Michigan Conservation Commission has long recognized the need for the provision of open space in southeast Michigan. The present system of state parks and recreation areas in the study area was established starting in 1944, and the purchase of additional land to complete the land holdings has continued from that date up to and including the present. A 1943 report by the State Conservation Commission recognized the need for substantial increases in publicly available recreation land.¹ In commenting on the need for recreation areas to provide for a great variety of facilities the report goes on to discuss the role of state government in the provision of these facilities.

To provide all of these things is something beyond the scope, and frequently the authority, of any one local agency. Cities and counties are concerned, and rightly so, with their local problems. The Huron-Clinton Authority is concerned with mass recreation and highly intensive needs within the area of its jurisdiction. But maximum development within the means of these agencies would fall far short of fulfilling all recreation needs. Besides the parks that the local agencies could provide, other public lands are needed in southeastern Michigan for the preservation of natural beauty and for the more extensive types of recreation, including hunting. A program for providing such areas is an obligation of the state government...²

Long ago it was established in this country that public needs supersede individual rights. This being true, government should foresee and ascertain the requirements of land for recreational purposes and then make those requirements

¹Michigan Conservation Commission, A Program to Provide Recreation Areas in Southeastern Michigan, 1943.

²Ibid., p. 11.

known as soon as reasonably possible and proceed as rapidly as possible - again within reason - to acquire those lands.¹

The goal of establishing adequate recreational areas is clearly set forth in the excerpts above. That fulfillment of the original plans has been less than complete is the responsibility of the various agencies and officials that have been concerned with implementation. Clear intent existed twenty-one years ago. Implementation of the 1943 plan is still far from complete. In the 1963-1968 Capital Outlay Program of the Parks and Recreation Division of the Michigan Conservation Department land acquisition constitutes nearly half of the \$82 million requested for new construction over the five-year period. In justifying the request for land acquisition funds, the 1962-67 Capital Outlay Program states that,

Land still remains our greatest need; each year finds less land available at prices within reason for new areas; for consolidating existing areas or for expanding parks now under administration. This land acquisition program is vital if we are to preserve for the people of Michigan the land and water needed for their out-of-doors recreation.²

It is less than encouraging to note that the urgency explicit in the above statement reflects the failure of the state to realize the goals set forth as early as 1943. Apparently recognition of a problem is not a sufficient cause for its solution. Perhaps the ultimate failure lies in the gap between the perception of a problem by a few individuals, in this case the planners for the Department of Conservation, and the implementation of a solution

¹Ibid., p. 21.

²Michigan Department of Conservation, 1962-67 Capital Outlay Program, p. 74.

after the public has accepted the need for the solution. While public officials can to a degree operate as independent decision-making units, ultimately their policies are determined by the operation of public opinion. If the majority of a population feels no need to act then it is unlikely that any public official will take any action that is in opposition to the wishes of his constituents. It is implied by the above that the people of Michigan do not feel the need for additional recreation land strongly enough to compel the legislature to make larger amounts of funds available now for land acquisition.

The Conservation Department anticipated that the acquisition program begun in 1944 would be completed about 1950, yet by 1963 there was only 60 percent of the originally proposed 100,000 acres in state ownership. These 60,000 acres of state land include the 16,000 acres of the Waterloo Recreation Area which was turned over to the state by the Federal Government in 1943, and thus required no funds for acquisition.

The situation is not altogether negative. On April 23 of this year (1964) the State Department of Conservation announced the approval of a grant application under the Open Space Land Program. The grant will cover 30 percent of the cost of buying about 2,000 acres of land, most of which is in the study area. Total cost of the purchases will be \$1,167,500. While the Federal Program involved is certainly no panacea, its cost sharing provisions may well serve as a spur for land acquisition. Many different forms of government have already participated in the program,

and can be expected to continue to do so, so long as funds are made available.

In 1960 after the completion of three preliminary studies, the Detroit Metropolitan Area Regional Planning Commission published a Regional Recreational Lands Plan. "The Regional Recreational Lands Plan was developed with the guidance of the Recreation Advisory Committee, composed of representatives of park and recreation agencies, planning officials and other concerned groups."¹ The plan is designed to meet the recreational lands needs of a 1970 population of 4.8 million in the area covered by the Planning Commission, i.e., the Counties of Monroe, Wayne, Macomb, Oakland, and part of Washtenaw.

The Regional Park is the center of the plan. The plan calls for the location of a regional park within thirty minutes driving time from any of the various sub-regional population centers. These regional parks are to be developed primarily for such family activities as swimming, picnicking, and simple relaxation.

Also included in the plan are Special Facilities, "Areas developed for limited functions (such as a beach or parkway) and do not provide a wide range of activities," and Resource Preserves, "land with unusual scenic or wildlife features left in its natural state. Minimum development warranted but may have areas for camping, fishing, winter sports, etc."²

¹ Detroit Metropolitan Area Regional Planning Commission, Regional Recreational Lands Plan, 1960.

²Ibid.

Included within the plan are lands administered by all the agencies so far discussed: the State Conservation Department, Huron-Clinton Authority, Wayne County Parks, and the City of Detroit. The plan recognizes the contribution of the Huron-Clinton Authority and the Department of Conservation, and they go on to say,

The implementation of the Regional Recreational Lands Plan necessarily falls to those agencies organized and financed to serve the recreation needs of this area Along with the provision of added regional facilities, there needs to be a greater effort on the part of local communities to provide, within their borders, appropriate recreational areas for their residents. The adequacy and effectiveness of any program for providing regional recreational land is handicapped if the needs for other types of facilities are neglected. The absence of local parks and playgrounds places an additional burden on regional park facilities which often have to be developed more intensively to satisfy the demand for local facilities.¹

The Board of Commissioners of the Huron-Clinton Authority has approved the Regional Recreational Lands Plan and their future acquisition plans coincide with the recommendations of the Plan. The Michigan Department of Conservation is also making an effort to implement its portion of the Plan. A number of small areas included in the recent Open Space Grant by the URA are within the sections recommended for expansion by the Plan.

In the first two chapters discussion has centered on the need for open space and why we can expect a substantial increase in future demand for open space, especially recreational land. It was noted that the supply of

¹Ibid.

all-day recreation land within the study area seems to be nearly adequate for the present. Certainly if the region's population growth approaches the predicted level of about 5.9 million by 1970, compared with today's 4.7 million, there will be a need to considerably expand available public open space. Local recreation areas represent the greatest problem today, and without decisive action now, the future demand increases will only further increase the severity of the present problem. Each new subdivision, planned and built without adequate open space reduces the space available for open space use and thus increases the already existing gap between the demand and the available facilities.

CHAPTER III

THE TOWNSHIP SUPERVISOR - HIS ATTITUDES CONCERNING OPEN SPACE

In many of the most urbanized areas it may never be possible to provide an adequate amount of open space. Land areas of sufficient size are no longer available within the borders of these communities. While future urban renewal projects may provide for the recreation of open space land in these cities, the areas thus created would be small and extremely expensive, since the open space use would be competing directly with the more intensive urban land uses. The concern here is not to detail how cities may create parks in this manner, since the major prerequisite for such an action is sufficient funds and a willingness to go ahead.

More important to the study, and to the future of the region are those sections that are just now reaching the stage of full suburbanization, the unincorporated townships. These governmental units have the opportunity to meet the future needs head on by action now. In most cases open land is still abundant enough to permit the selection of suitable sites for present and future parks. These townships have the opportunity to utilize the mistakes of other units of government in assessing the proper way to meet their responsibilities. However they can only do so if they are able to perceive their responsibility, and if they are willing to act, using the available means. It has never been clear whether the public directs the officials or whether their actions motivate public acceptance. Irregardless

of the correct nature of this relationship, it is clear that the local governmental official has a great deal of influence, and that he is able to guide, if not form public action. The survey reported here was an effort to anticipate how effectively the present local officials of the study area might be expected to meet the open space needs of their communities.

The Survey - The Township Supervisor

It was decided early in the work on this thesis that the task of collecting data on local recreation programs and future policies, for all of the municipalities and townships of the study area, would necessarily be beyond the scope of the study. However, it was felt that the importance of the local governments was such that some indication of their policies toward open space should form a vital part of a complete picture. Within this context, it was decided to conduct an attitude survey of local governmental officials. The following material describes that survey.

The position of township supervisor was chosen because it represents in actuality two units of government, the township and the county. Each township supervisor is chairman of the township board and also a member, representing his township, of the county board of supervisors. Since most incorporated cities have governments distinct from the townships from which they had been formed, the township government represents the entire rural population, and only a small portion of the urban population.

The farther away from the actual zone of suburbanization that a township lies, the more rural will be its people and their attitudes. In some

of the townships studied suburbanization has not yet altered the traditional patterns of rural life, as it has in those townships with rapidly growing populations. The purpose then, of the survey was to ascertain the attitudes of, and degree of knowledge about, some of the problems related to future open space needs. It is assumed that these attitudes will have a significant influence upon the manner in which each unit of government approaches its responsibility in regard to open space.

Procedure

The instrument used for the survey was a three-part questionnaire, containing a total of twenty-nine questions (see Appendix A). The first part, with twelve questions, was designed as a summation scale and was meant to measure the degree to which each official was aware of the problems of open space and willing to do something about them. A summation scale consists of a series of questions, each related to a central theme, though the relationship need not be obvious to the respondent, and in certain instances should not be obvious. The questions express either an opinion or a fact that is subject to varying degrees of acceptance. The respondent is given the opportunity to answer with varying degrees of intensity instead of with a simple "yes" or "no" answer. Strong disagreement or strong agreement is possible as well as various degrees of less intense opinion.¹

¹The author is responsible for the design of the procedure. There are a number of more elaborate procedures that could have been used including application of the Guttman Scale. It was felt, however, that because of the low return and the poor quality of responses that a more sophisticated approach was not necessary.

In scoring the scale, attention must first be given to the assignment of values for each of the possible responses. In this case number values were given to each possible response. Values from 0 to 6 for any one response were used, creating a possible theoretical spread of 0 to 72 for the entire 12-question scale. Strong agreement was assigned the value of 6, and strong disagreement 0. The numbers 2 and 5 were omitted in an effort to increase the importance of strong responses as compared with the more ambivalent responses. A response of no opinion, or undecided was considered as neutral and given a value of 3, a scale score of 36 being considered as a middle of the road attitude.

In order to conceal, if possible, the bias of the investigator, the scale included questions that appear to present both sides of the general theme. Thus we find, as in question number 3, that further action by the Federal government in the field of open space would be wrong. An almost opposite opinion is expressed in question number 12, which expresses the thought that there is much that higher levels of government can do to help local government with their land resource problems. Similarly, question number 5 suggests that local zoning ordinances can help to control land use, while question number 9 expresses the pessimistic point of view that there is not much that local government can do to prevent urban sprawl.

In establishing the scoring system it was necessary to take the point of view of the question into consideration. In establishing a consistent attitude we would find that strong disagreement in question number 3

would be equivalent to strong agreement in question number 12, and thus each should receive a value of 6. The scale included in the appendix is scored as though the respondent was in strong agreement with every statement after the responses were reversed to obtain overall attitude consistency.

A possible interpretation of the scale is that it measures conservative-liberal sentiments along a continuum that includes both extremes and all shades between. A high score would suggest that the official has a high degree of awareness and action potential. A low score might indicate that the official was neither aware of the actual or potential problems facing his community, nor is he willing to act. As with most scales of this type, a large portion of the respondents achieve a score that indicates a prevailing ambivalence and unwillingness to commit oneself publicly to a strong opinion. There is little social acceptance in this country for the radical or for the reactionary.

The second part of the questionnaire, consisting of eleven questions, was designed to elicit an articulated opinion, and to judge the degree of knowledge held by the supervisor concerning the open space problems that face local government. Some of the questions deal with expectations of future urban growth, and the problems that may be anticipated as companions to such growth. Others try to assess the role of local government in solving these problems, and the means that may be open for such solutions.

In those areas where the township is not currently facing suburbanization, many of the questions may seem unrelated to the concerns of the

supervisor. However, since the supervisor also serves on the County Board, he should be aware and conversant with the problems of the entire county. None of the ten counties of the study area are free of the effects of suburbanization. Thus while open space may be a "surplus commodity" for the township, the attitudes of each supervisor affect the functioning of the county government, and the extent to which it is able to achieve its open space goals.

The final part of the questionnaire, consisting of six questions, was designed to provide information on the background of each supervisor. It was hoped that these questions might be a means of isolating the factors that in part determine an individual's attitudes. In addition, some of the questions simply can be used to tell us something about each supervisor as a person. The three main factors possibly related to attitude were age, education, and place of residence. Occupation was a fourth factor of interest.

The questionnaire was accompanied by two cover letters, one from Professor Steinmueller representing the Department of Resource Development, and the other from the author (see Appendix B). Each described the purpose of the questionnaire, and why it was being sent to township supervisors. Also included with the questionnaire and letters was a stamped return envelope to facilitate recovery of completed questionnaires. The above items were mailed to each of the 182 township supervisors from the ten-county study area.

Results

As of June 1, seven weeks after the mailing, fifty-five questionnaires had been returned, or 30 percent of the total mailing. Of these, about ten were incomplete. Six of these failed to complete any part of the background information. On the other incomplete returns the first and third parts were completed, but the attitude fill-in questions on the second part were left blank.

While the suburban character of Oakland County may help to explain why there was a 50 percent return from this county, suburban Macomb accounted for only two returns, or 15 percent of the total. It is possible to say with certainty only that the overall return was disappointing, especially since the sample population represented a group of governmental officials.

Discussions with other graduate students have indicated that some of the items on the scale that comprises Part I of the questionnaire may be ambiguous enough so that respondents may interpret an item variously, thus precluding the chance of full data analysis. This ambiguity is due primarily to the inadequacy of pretesting. For example, in item 8 the question is worded as follows: "Floods are increasing because of a reduction in the amount of open land near our cities." If properly worded, the question should have read, "Flash floods are increasing..." The inclusion of the word "flash" changes the intent of the question to one that is related to a particularly damaging and vexatious urban problem, rather than

to the general problem of floods, which may actually have been decreasing in frequency in those drainage systems with adequate watershed protection and flood control systems.

Again in item 1, the question is worded as follows: "The burden of providing adequate park lands should be borne by the local government." In retrospect it seems that the addition of the word "local" to form the phrase "local park lands" would have more nearly expressed the thought that was intended.

The author recognizes that the form and content of the questionnaire is far from perfect, yet from the limited sample population it appears that there may be some significance to the results of the scale. The results are clustered around the middle of the scale representing those individuals who do not hold extreme views. While no extreme views were exhibited in the returns, the spread of scores was sufficient to indicate that the persons who returned the questionnaires held a fairly wide spectrum of views. Some respondents show a great unwillingness to recognize any value to planning or aid programs, and seem unaware that the problems of urban sprawl exist or will ever involve their community. Others seem to have recognized the basic nature of the urban problems that now, or soon will, face them and they seem willing to take many of the steps necessary to control growth in order to obtain a more desirable pattern of urban growth.

To a disappointing degree the poor return, and the small original size of the sample population, has made any refined statistical evaluation

impossible. The deviation within this sample of fifty-five complex human beings is so great that the causal patterns observed are little more than indications of the relationships that may have been verified with a larger sample and a more carefully conducted survey. However, on the basis of the scale scores and the items included in Part III of the questionnaire, the apparently valid relationships are examined in the following pages. (See Table 5.)

Table 5. Selected Results from the Questionnaire Sent to Township Supervisors in the Southeast Michigan Study Area

Counties	Number of Townships	Number of Returns	Percent Return	Mean Scale Scores	Mean Age	Mean Years of School
Genesee	18	7	38.9	34.9	59.2(6)	13.8(6)
Lapeer	17	4	23.5	37.3	55.3(3)	10.7(3)
Lenawee	22	6	27.3	37.0	56.3(6)	12.0(6)
Livingston	16	4	25.0	33.3	63.8(4)	12.0(4)
Macomb	13	3	23.1	35.7	47.5(2)	12.0(3)
Monroe	15	6	40.0	36.5	50.0(5)	12.0(5)
Oakland	24	12	50.0	39.3	55.6(10)	15.1(8)
St. Clair	23	7	30.4	35.9	53.8(6)	10.5(6)
Washtenaw	20	3	15.0	41.0	51.7(3)	17.3(3)
Wayne	14	5	35.7	42.0	47.0(4)	15.0(3)
Ten County Totals	182	57	31.3	37.4	54.8(49)	13.0(47)

Note: The number in parentheses in the final two columns refers to the number of usable responses on each item for each of the ten counties. Incomplete questionnaires account for the discrepancy between the total number of returned questionnaires and the number of responses on a given item. The small number of returns from some counties make it impossible to draw valid generalizations from the data. The reader should note Macomb and Washtenaw Counties in particular.

First it should be noted that the scores from the respondents from Oakland, Wayne, and Washtenaw Counties seem to be higher, or less conservative than those from the other counties. Macomb County should also have had high scores, but no clear indication can be seen from the three returns from that county. Scores of respondents from Genesee County are low, or fairly conservative possibly due to the conflict that has existed in this county between the expanding metropolitan area of Flint, and the rural values that predominate the rest of the county. This conservative attitude is reflected in the virtual lack of public open space in Genesee County outside of the City of Flint.

Scores of respondents in the more rural counties, Lapeer, Lenawee, Livingston, Monroe, and St. Clair are lower on the average than those of the suburbanizing counties with the exception of Genesee. The only county with respondent scores lower than those in Genesee is Livingston, one of the most rural counties of the area. Respondents in the other rural counties may have scores higher than those of Genesee simply because they are not reacting to a perceived threat.

One further piece of evidence seems to point toward the fact that supervisors from the most rural township may hold the most conservative views. Fifteen townships had population growth rates of less than 10 per cent for the period from 1940 until 1960. All fifteen of these also had an overall population density of less than fifty persons per square mile. Completed questionnaires were received from four of these townships and the

mean scale scores were substantially below those of any other group of townships. In most instances these townships represent those that may not be subject to any great growth in the near future. Yet, as was suggested before, the supervisors from these areas also serve on a body that is responsible for government in a county that is experiencing growth.

There appears to be a relationship between the educational achievement of the supervisors and their scores on the scale. It seems reasonable to expect that those with higher levels of education would hold more liberal views. The data appears to bear out this assumption. Only three of the fifteen persons who had completed more than two years of college had scores below the mean. In contrast we find that three of the five with less than a tenth grade education scored below the mean, while eleven of the nineteen with from ten to twelve years of education were also below the mean. The relationship does not appear to be as strong as it might be, yet the sample size may well account for this situation.

The relationship between scores on the scale and age appears to be somewhat less decisive than it is for education. Still there does seem to be two distinct groupings; those with high score and relative youth, and those with medium and low scores and greater age. Only one of the five supervisors over seventy years of age had a score above the mean, while ten of the fifteen supervisors under fifty years of age scored above the mean. Those from fifty to fifty-nine seem slightly more liberal than the group mean, while the supervisors from sixty to sixty-nine are clustered

around the mean score. Age is not necessarily an indicator of conservative values, yet traditionally elderly rural persons hold more conservative and less flexible positions than do their younger counterparts.

The overall rural orientation of most of the supervisors is clear when we examine the data for place of residence and major occupation. Fully 61 percent of the respondents were living on farms, while another 24.5 percent lived in the country but not on a farm. The remaining 15 percent lived in communities of various sizes with no particular class predominating. It is significant to note that in highly suburbanized Oakland County, only one of the eight supervisors reporting place of residence lived on a farm, while in more rural St. Clair County all six of the respondents on this item lived on a farm. Although there are far more farms in St. Clair than in Oakland, and the farmer is relatively more important to the total economy of the county, still the appearance of so many farmers on the township boards is an indication of the dominant position of rural values in these communities, and the relative prestige held by the "good farmer" in spite of what we have been led to believe about status in our society. The skilled and prosperous farmer is held in high esteem by his rural neighbors, in spite of the low esteem the urban community awards to farmers. Township government is one of the few places where the neighbor down the road does get the opportunity to participate in government.

Those who lived on farms were definitely less liberal than those who were living, either in town, or in a rural non-farm residence. The mean

scale score for those living on farms was 35.9, while those in off-farm residences scored a significantly higher 39.9 on the scale. It would be illusionary however, to suggest that there is something intrinsically conservative about living on a farm. The farm resident is usually a farmer, and thus his occupation is of far greater importance in understanding the nature of his attitudes.

The occupational characteristics of the sample show slightly more variety than do the residential characteristics. More than half of the supervisors lived and worked on farms (54.2 percent), another few listed farming as a secondary occupation, thus accounting for the discrepancy between those that lived on farms, and those that considered themselves to be farmers.

A sizable number of the respondents (27.1 percent) listed their position as township supervisor to be their main or only occupation. If this indicates a growing professionalism in local government, then it can hardly be an unwelcome development. A number of respondents listed insurance and real estate as primary or secondary occupations, and there was one attorney and a civil engineer among the group. Three of the supervisors were already retired and apparently considered their work as supervisor to be less than full time employment. The advancing age of some of the farmers would suggest that they too may soon join the retired group, while still retaining the position as township supervisor.

The thirteen supervisors who consider government as their major

occupation, have the highest scale score of any group within the sample. Their mean score was 41.9, and this compares with the score for the farmers of 35.6. None of the full-time supervisors had a score below the median score for the farmers (36), while three of the four respondents with the high score of 46 were full-time supervisors. There seemed to be no clear trend in the scores for the eight respondents with various non-farm occupations other than supervisor. The important point here is that few of the respondents represented the wide variety of occupations found in any community.

Perhaps one of the greatest problems of rural local governments have been their inability to attract individuals from a wide variety of occupations and backgrounds. When they begin to be representative bodies of government, they may be expected to be better able to solve the problems of an increasingly complex and urbanizing society.

The Attitude Study

The small overall number of returns, and the relatively unusable nature of many of the returns makes a detailed analysis of Part II of the questionnaire, dealing with the attitudes and opinions of the supervisors, impractical if not impossible. However, an impressionistic summary of the attitudes and values revealed in the study will be presented here. It is worth noting here that in many instances very little effort seems to have been made to complete the questionnaire in a responsible manner. While it is recognized that the task of completing the many questionnaires that plague us all is far from pleasant, it is none-the-less the responsibility of a government

official to cooperate with researchers wherever possible. But it has been all too easy for those surveyed to think that the University is just wasting its funds and the time of its personnel on projects that have no significance. A recognition of the problems implicit in the questionnaire seems almost a prerequisite for effective governmental action in this area. It is thus all too easy to assume that those supervisors who failed to return the questionnaire, or completed it in a haphazard manner do not recognize, or consider important the issues that are dealt with in the survey vehicle.

Of all the returned questionnaires, eight were chosen because, in the subjective judgment of the author, these seemed the most articulate and demonstrated the greatest degree of understanding on the problems facing local government. The respondents seemed to have taken far more time than average in preparing their answers. The mean Scale scores of these eight returns were well above the mean for the entire sample. Their mean age was forty-seven compared with fifty-three for the whole sample, and the mean number of school years completed was 15.4 compared with 13 for the complete sample.

A few excerpts from these eight questionnaires are presented below as examples, not of English composition, but of intelligent and perceptive answers to problems that have concerned the respondents. In commenting on the value of outdoor education we find the following:

With the percentages of persons living in urban areas increasing, relief of urban style and speed can best be attained by providing relaxation areas, therefore lets acquaint the children with nature so as they grow up,

they will continue to appreciate it and as they take over government they will also try to continue open space policies.

I believe it is a valuable teaching approach because it provides students a realistic environment not just a text-book and classroom approach. By being physically a part of the camp site and having many of the objects and subject matter actually about, I believe students can get a better sense of relationships with the outdoor world.

Most of these supervisors recognize that the local government is primarily responsible for the provision of local recreation areas. Concerning the need to prevent the uncontrolled use of resources we find the following.

It is ridiculous to even imagine what desecration of the landscape would take place by granting "open season" to land developers and individuals who knowingly ... would deface the country side.

Unless there is controlled use and development, private interest, generally motivated by profit purposes only, give little if any thought to the harm or benefit resulting from their exploitation. So called "Master Planning" is essential to minimize patch-work wasteful growth.

Commenting on the problems associated with the increase of urbanization, the following excerpts are germane.

We anticipate roads, sewers, parks and/or recreation, and water supplies as serious problems. Proper and adequate finances, necessary to start these projects, will be hard to come by.

The loss of open space!

The loss of pleasant open character and scenic sights because inadequate capital is available to a "bedroom" community to acquire property for parks and scenic easements.

The same supervisor commented on the steps that might be taken to preserve

the open land of the township.

Use the Open Space Act to acquire what land you can, and try to obtain low cost easement or development rights in scenic areas. Consider more along the lines of density zoning rather than traditional large lot zoning to provide more open space.

Some of the supervisors feel that it is important to maintain open land in their township in spite of the fact that this land use is not the most profitable for suburbanizing areas.

As part of balanced growth for this township, there should be some agricultural-forest land preserved. To me one of the unfortunate results of urban sprawl is the creation of large areas of drab, monotonous streets and buildings.

I would work for it (open space) because I feel row on row of homes is not good without occasional breaks of natural beauty. It would then definitely provide park or nature area. It would add to the community. Urban and city people should be able to have such facilities without having to travel far to use and appreciate them.

While most of the supervisors thought only of zoning to prevent the effects of urban sprawl, if they considered any solution possible at all, one of the respondents did bring up an equally important and usually overlooked aspect of the planning problem. In reference to what government can do:

Encourage and participate in county and regional plans for growth, including the development of county-township park system.

Most of the supervisors seemed to recognize that the Federal and State governments could be of some value in helping them solve their problems. Unfortunately, only one of the respondents seemed to be able

to articulate the reason why it is important for there to be cooperation between all units of government. Most supervisors seem unwilling to recognize their dependence upon the larger units of government.

Rapid growth results in increasing needs for planning, construction, and services, the costs of which exceed the sums available from present sources of income for local government. Adequate local sources of income for strictly local projects and operations would be the most desirable means of financing them. However, in the absence of such adequate sources, Federal sources are more or less forced upon us . . . For open space and recreational requirements perhaps State and local cooperation both on costs and technical know-how would help since the problems transcend local political boundaries.

Conclusions

The understanding and perception implicit in the above excerpts is in sharp contrast with the answers given by the greatest majority of the respondents. For many of the respondents a "yes" or "no" answer seemed adequate, while for others no answer at all was not uncommon. Perhaps what the author has discovered is that it is difficult to elicit comprehensive answers from all but the most concerned individuals. If the prospective respondent is not concerned about the subject of the questionnaire, or even more important if he is hostile to some of the implicit suggestions included within that questionnaire, then it is unlikely that he will be willing to spend the time necessary to properly complete its sections.

Thus it is here hypothesized that the low rate of questionnaire return is partly a result of the degree to which the members of the sample population were annoyed, or felt hostile toward the contents of the survey instrument.

While there seems little basis for doing so, it is also suggested that these supervisors who failed to return the questionnaire may well be more conservative than their counterparts who did return it. At least the latter were willing to make the effort to complete and return the form. Thus the age, education, and attitude profile disclosed by the respondents may actually represent a far more liberal group than the 182 supervisors who received the original mailing. If the attitudes of the non-respondents are similar to those here suggested then it is disturbing to think that they are subject to what might be called the ostrich effect. Perhaps if they are able to avoid thinking about the problems of contemporary local government for a long enough period of time then they may be expected to go away. Unfortunately, it is all too easy to assume a negative attitude toward the functioning of local government and the effectiveness of the officials who represent it.

In summarizing the results of the returned questionnaires it would be fairer to note that many of the supervisors have some grasp of their problems, and an articulate few understand the problems and have some idea of how to effectuate solutions. This is a highly positive finding, especially in light of the way that local government operates. If each County or Township Board contains a few members who are willing to take direct action to meet problems head on then their resolve, if they have enough influence with the rest of the members, may be sufficient to prod the entire body to action. History abounds with examples of how individuals can influence

the course of events. We are not here subscribing to this school of history however. The essential point is that a realistic appraisal of the functioning of local government, if not all governments, must give due credit to the power of group leadership. Thus it can be hoped that the results of this questionnaire indicate that there is a core of individual supervisors who have the knowledge and understanding to provide leadership to solve open space problems.

CHAPTER IV

OPEN SPACE ACQUISITION TECHNIQUES

The citizens and governmental officials of a community must be convinced that open space action is necessary before any action on present and future needs can be expected. Once the overall resolve exists it is then appropriate to determine the best course to pursue toward the solution of the problem. In this process there are two main components. The first is the means of obtaining the proper funds to complete a program, and of getting the most qualified technical assistance. This subject is dealt with in the following chapter (V). This chapter deals with the various legal techniques that a community can use to obtain control of land or the desired rights to land.

Fee Simple Purchase

In the acquisition of open space for various uses, one method has predominated; the purchase of the fee simple title.

Property involves several distinct interests or rights which can be held separately and which when taken together represent a "bundle of rights." The largest bundle of rights a private owner can hold in landed property in our society is known as complete ownership or as ownership in fee simple... Fee simple is one of the broadest and most complete concepts of property ownership yet developed.¹

¹Raleigh Barlowe, Land Resource Economics (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1958), p. 339.

The fee simple owner has the right to use the land in almost any manner desired, but always under the control of a government. Fee simple is never an absolute right, rather it is exclusive. The State Government of Michigan acting through the Legislature has enacted legislation permitting the units of local government to acquire land for public purposes. Article VII, Section 23 of the new State Constitution specifically authorizes cities or villages to "own, establish and maintain, within or without its corporate limits, parks, boulevards, cemeteries, hospitals and all works which involve the public health or safety." The County Park and Airport Act, and the Township Park and Recreation Act provide legislative authorization for these units of government to purchase, operate, and maintain park lands. There is no doubt that all units of government in Michigan have the authority to operate parks, this authority extending even to regional groups formed by the cooperation of two or more units of government. The Huron-Clinton Metropolitan Authority is an example of such a regional group. As was stated earlier, the Authority was formed by Act of the Legislature under Public Act 147 of 1939.

Local governments have used fee simple purchase as virtually the only means of gaining control of open space for park purposes. Our national heritage is geared to this form of ownership so that we have been relatively unwilling to consider other forms of ownership involving less than complete control. In addition there is little doubt that fee simple ownership permits the public the greatest use of property, and the greatest

freedom in determining the development and management of open land. Unfortunately the mere fact of public ownership has not been sufficient to ensure the continuation of the original open space use. Often the open and undeveloped lands of our parks have been the ideal path for a new road, schools, and other needed public projects. The critical issue in the preservation of open land is a matter of public priorities. When the alternative uses to which park lands may be put become more important to the public than their present open space use, then it becomes very difficult indeed to prevent the encroachment. The parks of the City of New York, which are incalculably valuable, have not been able to hold out against an even stronger public need. The demand for new and unsegregated schools is so great and so immediate that the New York City Board of Estimate voted unanimously on February 7, 1964 to transfer a section of Morningside Park to the Board of Education to be used as the site for a new public school. The new school, in addition to providing much needed classroom space, will, when paired with another school, provide for a racially more balanced situation in the neighborhood in question.¹ The important point to be made here is that despite strong objections from a number of citizens groups, and the City Planning Commission, the politically sensitive Board of Estimate felt that in this instance schools were far more important than parks. New York has been used here as an example in order to show that even where parks are highly valued they can be preserved only if their continued existence meets an unshakable community resolve.

¹The New York Times, February 7, 1964, p. 1.

The strength of a community's resolve is well illustrated by the willingness with which they will undertake condemnation proceedings in order to acquire necessary open space. While condemnation has been frequently used to acquire land for highways they have been considerably less ready to use condemnation for parks. Supreme Court Justice William C. Douglas has argued in a case involving condemnation for redevelopment, that:

The concept of the public welfare is broad and inclusive ... The values it represents are spiritual as well as physical, aesthetic as well as monetary. It is within the power of the legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean, well balanced as well as carefully patrolled.¹

To summarize, fee simple purchase has been the most commonly used technique for the acquisition of open land for park and other open space uses. It involves the acquisition of the complete "bundle of rights," yet it is not a guarantee for all time. Land purchase costs are sometimes inflated by speculation, and the taxpayers of the community must carry an unfair and unequal burden in comparison to the benefits that they may receive. Certainly when a community is attempting to secure land now for future use the taxpayer may have a legitimate complaint. He is being forced to pay for something from which he receives no benefits. In this context then it is appropriate to examine alternative methods of open space acquisition, and whether these methods may aid in the reduction of current costs.

¹Berman vs. Parker - 348 U.S. 26 (1954). Cited in Strong, op. cit., p. 13.

Purchase and Lease Back

One very simple and at times even profitable means of acquiring open space at a lower cost to the taxpayers is to purchase the fee simple title, and then to lease the land to a user who will not impair the open space value of the property. This procedure puts the government into the real estate business, and such an arrangement may have unpleasant connotations for those who see governmental action as a threat to their individual freedom. However, if this obstacle can be overcome, and if government is recognized as an instrument of the public will, the technique has value especially in cases where immediate purchase is necessary because of an impending development that may alter the open space qualities of the property. Once developed as a subdivision there is little that can be done to reclaim the land for public use. In another possible instance the property may be available for purchase at a very attractive price, but only for a short period of time. In this case it would certainly be wise for the governmental unit to buy now.

In most instances, the most attractive lessee would be one for whom the land would be income producing without any significant change in the use of the land. Most agricultural and forestry use would be ideal, meeting both the needs of the public and the lessee. The income derived from the lease would do much to compensate today's taxpayers until such time as the land is needed for public use.

The Easement

Recreation and education are two open space uses that usually require the purchase of the fee title since they involve active use and development of the property. Influencing the direction of urban growth, aesthetics, and conservation goals can be achieved without the actual purchase of the land. In these three cases the essential point is simply that the land remain open. So long as it does remain open there is no need for public purchase of the land. It is possible to separate out those portions of the "bundle of rights" that include the right to change the use of the land. The purchase of a portion of the title is called an easement. Easements purchased to preserve open space have variously been called: Conservation Easements, Development Easements, or Scenic Easements. The primary difference between each type of easement is in the benefit gained by the public with its purchase. Easements purchased to aid in the control of urban growth, or to preserve the land for future recreation or other public use, would be called a development easement. If conservation is the primary goal, then we speak of a conservation easement. If the main benefit is in the preservation of an attractive natural landscape then we might think of a scenic easement.

The important point to remember about the various open space easements is that they permit the continuation of private ownership and use while providing society with the guarantee that the land will continue to remain undeveloped. Precedents for the purchase of easements are not as

firmly established as those for fee simple purchases. Real impetus has been injected into the easement movement only since 1959 when William H. Whyte published his Securing Open Space for Urban America: Conservation Easements. This work has stimulated a great deal of study and thought on the matter of easements, and recent open space legislation in Wisconsin, and Connecticut has included important provisions on easements.

Whyte, in discussing the development of his program on easements, describes why he has chosen to call the open space easements he advocates conservation easements, rather than scenic or development easements.

What we're really after is conservation of things we value, and thus I have been trying the term "conservation easement." Another term may well prove better, but "conservation easement" has a certain unifying value: it does not rest the case on one single benefit - as does "scenic easement," but on the whole constellation of benefits - drainage, air pollution, soil conservation, historic significance, control of sprawl, and the like.¹

Thus the easement as visualized by Whyte can go a long way toward meeting the whole constellation of open space needs that don't involve extensive public access or recreation development. And all these benefits can be obtained by society as a cost usually below that of acquisition in fee. The purchase of an easement does not reduce the present earning capacity of the land, the cost being primarily a function of the potential future value of the land for another use. Thus the purchase of easements in areas that may be subject to later urbanization may be far more expensive than easements

¹William H. Whyte, Securing Open Space for Urban America: Conservation Easements, Technical Bulletin 36 (Washington: Urban Land Institute, 1959), p. 8.

outside of future growth zones, the difference being the speculative value.

In built-up areas near the city, however, the speculative value of the development rights is such that easements could cost as much as the fee simple. It is not a device, in short, that can save an area that is already overrun.¹

Conservation easement as used here should be clearly distinguished from the more commonly used "right of way" easements which are tantamount to a taking. When a road is built across a man's property he is likely to gain little satisfaction from the knowledge that the land is still his. If the land owner is interested in keeping his land open and in an agricultural use, the easement approach has considerable benefits for him as well as for the public. When combined with a tax relief program, and assuming the cooperation of his neighbors, the land owner can be assured of protection from subdivision growth, and he has confidence that the agricultural value of his land will not suffer artificial deflation.

Easements may be used to protect land that may be needed at some future date for park development. The owner is compensated now, for his right to develop the property, and when the land is needed for public development the owner would receive payment for the full value of the fee title. During the interval he would be able to continue use of the land. Especially where the land may not be needed for twenty or more years in the future, the taxpayers of today are spared the full cost of the land, thereby creating a more equitable distribution of benefits and costs among

¹William H. Whyte, Open Space Action, Outdoor Recreation Resources Review Commission Study Report 15 (Washington: U. S. Government Printing Office, 1962), p. 17.

present and future residents.

Tax Relief and Zoning

To obtain maximum effectiveness, easements should be used in conjunction with tax relief and zoning. This point is clearly brought out in the various reports of William H. Whyte. One of the greatest obstacles to maintaining privately-owned open space in metropolitan areas have been the assessment and taxing procedures. Open lands, regardless of their present use, may be taxed for their speculative value when it appears to the assessor that the land in question has a development potential. Thus taxes on land in such a situation are generally quite high, high enough in many cases to force the owner to sell it to developers since farming can no longer be profitable with taxes so high.

It is in this context that proposals have been made to tax land that will remain as open space at a lower rate. Thus the sale of an easement by the owner guarantees the continuation of the present open space use, and should entitle him to a lower tax. There seems to be legal precedence for this form of tax relief.

Depending upon the wording of State constitutions, land that provides a public benefit may be exempted partially or wholly from real property taxes. Public open space usually is exempted. The partial or full exemption of private open space usually is determined by its benefit or use to the public.¹

Additional open space could be maintained if such a tax deferral system

¹Strong, op. cit., p. 30.

were extended to include all open and productive land. In cases where no easement is held by the public the taxes could be deferred until the land is sold for some other use. At that time the full tax would become due as is the practice with some commercial forest lands in Michigan. The need to pay this tax upon sale of the land could prove a useful deterrent.

Zoning can be used in conjunction with easements and tax policies to provide a community's comprehensive plan for open space. Zoning can be used to protect the public from harm done to its interests by private individuals. Thus it might be possible to claim that since open space was a public benefit, any action that depletes this resource must be prevented through the use of zoning. However, the point of public harm would be stretched by this kind of analysis. Easements and tax relief are far more appropriate in many cases since the public is obtaining a benefit at the expense of the individual.

Where the case for public harm is clear, zoning is the most appropriate tool to use. The case of flood plain zoning is the clearest instance of the need to protect the public interest from the harm that may result from improper development of flood plain lands.

A recent report by TVA advised Congress that mushrooming cities were creating new areas of potential flood danger faster than dams and levees could be built and recommended that federal funds for local flood control projects be conditioned on the adoption of suitable zoning regulations.¹

¹ Siegel, op. cit., p. 37.

It is surely in the public interest to prevent development on lands that are subject to periodic flood damage, and the reduction in the potential damage is far better than having to bear the costs of extensive and expensive flood control works. In addition, flood plains provide unusually good sites for recreational development, and in many areas represent the only attractive natural feature. Green belts extending along streams can create links to the larger units of a city, county, or regional park system. However, watershed protection, soil erosion control, and flood danger abatement are sufficient reasons to justify flood plain zoning. To the extent that zoning is a negative measure designed to prevent an unwise use of land, as defined by the zoning ordinance, it should be noted that once inappropriate uses are excluded the land is available for any compatible use, whether it be agriculture, forestry, or recreation.

In those areas where wooded hills lie adjacent to the flood plain, the use of easements to maintain the hills as open land would be appropriate. Soil erosion control and watershed protection would be enhanced by preserving these higher lands from development, but the danger to the public interest is not great enough to justify zoning; easements are the appropriate measure. The two tools, zoning and easement should be used in conjunction where the physical and economic conditions of the site dictate a particular treatment. Whyte ably summarizes the manner in which zoning and easements should interact in an open space plan. It is vital to recall that neither is adequate to meet the total need.

We properly use the police power to compel owners not to build on open space when building on it would harm the public. With certain kinds of land we want saved for all sorts of other reasons too, such as flood plains, this is clearly the case. With other kinds of land - gently rolling hills, for example - we could stretch a point and say that we're doing it to prevent public harm, and thus apply the police power here too. But the point will not stretch this far; a good lawyer could tear it into shreds and ask, vehemently, if providing decent homes for people on land fit for building is harmful.

Now, if we, the public, want this kind of land saved - and it is the greater portion of our open areas - it is as a benefit. The law is clear on the matter. If we want it we pay for it. What we pay depends on how much the owner is giving up in keeping it open; sometimes it will be considerable, sometimes little, and often he will give it free.¹

Encouraging Gifts

Throughout the past a substantial portion of all public open space has been obtained through the gift of land. Prime examples of large areas acquired by gift are Baxter State Park in Maine, Harriman State Park in New York, and large portions of the Smokey Mountain National Park in North Carolina. In Michigan many state parks owe their existence to gifts, the Dodge Brothers Motor Corporation being the most significant single donor. No community can afford to ignore the potential of gifts.

The easement device may greatly enlarge the gift potential. Only a relatively few landowners are wealthy enough, or public spirited enough, to give their land outright, but there is a rather sizable group who could afford to give easement and would be willing to, indeed it can be demonstrated that it would actually pay them to do so.²

¹Whyte, Securing Open Space . . . , op. cit. , p. 28.

²Ibid. , p. 36.

The gift of an easement assumes that the owner is not profit motivated, and that he really would like to contribute to his community. So long as his neighbors also participate in the program, the owner is given protection from unwanted development around him. All too many attractive estates have been greatly depreciated by the appearance of extensive subdivisions on the land surrounding the estate.

The land owner, whether he be a farmer or wealthy ex-urbanite, could receive tax relief as was discussed in the previous section. The problem is that many communities, failing to realize the value of open land, would be more concerned about a possible reduction in their tax income than they would be in the possible loss of open space. At least they would not miss it until it was gone.

An additional way to make gifts attractive is to provide for the possibility of a life estate if the owner is willing to deed the land to the community. He is then entitled to full use of the property for the length of the estate, and is given a tax reduction commensurate with the value that has been conveyed to the public. Upon expiration of the life estate, the land, with or without restrictions imposed by the original owner, reverts to the public body to which it has been donated.

Cluster Developments

The final open space device, and perhaps the most significant new idea for metropolitan areas is cluster development. This plan for the development of new housing depends for its success upon a reappraisal of

the traditional minimum lot zoning. Minimum lot zoning has been the most commonly used device by which communities have sought to preserve, with little success, the open quality of their land. Where the lots are large enough to really give an estate like feelings to subdivisions, the amount of land involved is so great that the original purpose is partially defeated. In addition, the cost of providing the various municipal services to the widely dispersed homes greatly increases tax rates. Where minimum lot size is only one-half acre the homeowner is left with a slightly larger lawn to care for but still far from sufficient space to meet his family's needs for open land.

Cluster zoning permits a developer to reduce the land space usually required around each house - thus producing a closer clustering of homes - if compensating amounts of open space are provided within the same development... Cluster zoning permits economies in building and in provision of services, and also preserves significant portions of subdivisions as permanent open space. When open space can be linked with that in adjoining subdivisions - along stream valleys, for instance - greenbelts can be created. It is important to recognize, however, that some agreement must be reached on the ownership, use, and maintenance of the open space thus secured.¹

The land preserved as open space in such a development could be dedicated by the developers to an association formed by the home owners, or better yet, to the municipal or other local government in those cases where the unit of government is willing to accept responsibility for the land. As was mentioned earlier in this study, the New Town of Reston, Virginia, is being developed with the use of cluster zoning.

¹Strong, op. cit., p. 15.

Cluster zoning involves land situated in an intimate relationship to residential areas. The land established for public use in this kind of situation is the most important for the continual well being of our communities. This is the local recreation area that our suburban areas are so sorely in need of, and our cities are no longer able to set aside. The cooperation between the developers, home owners, and governments that arises from successful cluster developments is a highly significant and valuable example of what can be done to secure adequate open space for our metropolitan areas.

We have seen that a number of different techniques may be used by a community to meet its open space goals. Fee simple purchase has been the most commonly used method of acquisition, and in this respect Michigan is certainly no exception. The other techniques, and their specific application to open space problems, have been developed only within the past decade. In many instances these techniques are still relatively unknown and virtually unused. While the Statutes of Michigan permit the purchase of easements for park purposes, there has, so far, been little use of the device in the state. It is difficult enough to appropriate money for park land purchases. The acceptance of the easement approach may well take a long time in Michigan.

CHAPTER V

AID TO LOCAL GOVERNMENT - FEDERAL AND STATE PROGRAMS

From the preceeding chapter it should have become clear that there are techniques available for acquiring all classes of open space to meet the needs of local governments. The easement in particular is well suited to reduce the potential conflict between the public's interest in open space, and private profit motives. Fee simple purchase is used where the public need is dominant and continued private use would impair the full utilization of the resource by the public.

It must be granted that the legal acquisition tools are available. But, do local governments know what tool to use to meet their needs, and given a program to meet those needs, do they have the financial means to do so? The state and federal governments do have the means to aid local government through the vehicles of technical assistance and financial aid. The purpose of this chapter then, is to present a summary of the various programs under which local governments may receive aid in matters of open space. It should be remembered, of course, that the existence of programs does not guarantee their use.

State Aid

Local government derives all its power and authority from the state. It is in relation to this aspect of local government that the state exercises

a strong controlling hand over open space action. Unless local government has legislative authority to act, through the means of specific enabling legislation, it is powerless. This then is the first important role of state government, to provide local units with the legal means by which they may implement their plans.

The basis for local action is established in Article VII of the Michigan Constitution of 1963. In this article, the various powers of county, township, and municipal governments are enumerated. Section 23 of Article VII specifically provides cities and villages with the authority to own and operate parks. Section 27 establishes the overall constitutionality of metropolitan governments established to better carry out the powers that have been given individually to single units of government.

The Michigan Legislature has provided local government with the means to acquire, operate, and maintain parks, and to tax, issue bonds, or accept gifts in order to finance park operations. Authority is also provided to use the power of eminent domain for the acquisition of park lands.

These provisions are included in the following pieces of legislation: Recreation and Playground Act (1917), Park Conveyance Act (1939), Township Gift Park Act (1905), Township Park and Recreation Act (1931), County Park and Airport Act (1913), Flood or Beach Erosion Control Act (1931), and the Coastal Beach Erosion Act (1952). All these Acts serve to "enable" local governments to act, none are programs, and none of them guarantee that any particular unit of government will utilize the authority thus granted to them.

The laws of Michigan include many of the Acts that are necessary to meet open space needs. Aside from those directly related to open space as listed above, other laws dealing with planning enabling, zoning enabling, urban renewal and redevelopment, land platting and mapping, public utilities, and finance have been provided. It seems clear that the lack of local open space programs can hardly be blamed on the State Government. Local government has been granted the authority to act on its own behalf.

The newly created Michigan Department of Economic Expansion has primary state responsibility for the coordination of local planning efforts. The Department is also responsible for administration of the Federal Local Planning Program, as established under section 701 of the Housing Act of 1959. Local grant applications are processed through the Department of Economic Expansion. A further discussion of the "701" program will be found in connection with the programs of the Urban Renewal Administration.

The Michigan Inter-Agency Council for Recreation, supported by appropriation from the State Legislature, provides a number of services to local communities. It is responsible for coordinating the recreational programs of the various state agencies having primary or secondary responsibility for recreation. It serves as a clearing house for information on various aspects of recreation and also encourages local communities to develop adequate recreation programs. The role of this independent agency should not be over-emphasized however, as the annual appropriation delegated

to the Council is so limited (less than \$20,000) that it is difficult to see how one man and a secretary can meet the need for technical aid for many local governmental units.

The Cooperative Extension Service of Michigan State University is becoming increasingly concerned with problems of resource development and recreation. The Extension Service presently employs a Park Management Specialist. Funds for Extension Specialists are derived from both state and federal appropriation, with their share usually being about equal. This Park Management Specialist is responsible for aiding local communities, private groups and individuals in the development of recreation programs and enterprises. County Extension workers, also partially supported by state and federal funds, are becoming increasingly concerned with the development of the recreation potential of their counties, especially where the recreation potential is high.

The role of the state owned public open space areas has already been discussed. All the divisions of the State Department of Conservation are either directly, or indirectly involved in recreation and open space. In the study area of southeast Michigan, the Parks and Recreation Division has primary responsibility through their control of the State Parks and Recreation Areas. In northern Michigan the Division of Forests has major responsibility.

While the state recreation programs are extensive and important, and their development and acquisition program active, it is unfortunate that

Michigan has not followed the lead of other states in providing direct state aid to local communities for the acquisition of open space.

New York, New Jersey, and Wisconsin have provided the lead in state open space programs. In each state a large bond issue was authorized. The monies thus obtained were to be used, partially for the purchase of state park lands, and partially to aid local governments. The New York Open Space Act of 1960 authorized the sale of \$75 million (another \$25 million was added in 1962) in bonds. State aid for local communities was to cover 75 percent of the total cost of acquisition. The New Jersey Green Acres Land Acquisition Act of 1961 provides for \$60 million, with grants covering 50 percent of the acquisition cost, and with specific authorization for the use of grants to purchase easements. The Wisconsin Act of 1961, while primarily involved with state park lands provides some funds for easements, and for local park areas. The total authorization was for \$50 million. The legislative recognition of the problems of open space in metropolitan areas is clear in the following segment from the New York Open Space Act.

The disappearance of open and natural lands, particularly in and near rapidly growing urban and suburban areas, is of grave concern to the legislature and to the people of the state. Once such lands are used for residential or commercial purposes, they are often permanently rendered unsuitable for parks, conservation or other recreation purposes. The present and future needs of the growing population of the state require the immediate acquisition of such lands for park, conservation, and other recreation purposes.¹

¹New York, Open Space Act, 1960, Section 875(2).

It can only be hoped that the great need for open space land in Michigan will be realized by the legislature and that they will be able to provide the people of the state with an instrument to meet the needs such as has been done in other states.

Federal Aid

The federal involvement in open space can be divided into three main parts. First, the federal government is involved in the ownership and management of a vast amount of land, over 770 million acres, or one-third of all land within the fifty states. While 47 percent of this total is in Alaska, the Western states in particular also have large areas of federal land. Nevada has 85 percent of its land in federal ownership, and at the low end of the scale, only 0.4 percent of Iowa is federally owned.

This land area is managed by a large variety of federal agencies, each representing a particular dominating interest. Thus the U. S. Forest Service, while actively concerned with multiple use, has primary responsibility for the management of forests and the protection of watersheds. Similarly, the National Park Service is willing to permit hunting on some of the newly created areas in the Eastern part of the country, but only so long as this use does not interfere with the preservation of the lands for future generations. They will permit no use that operates against their primary purposes, and to date they have been a fairly good protector of their own self interests.

Among the major land holding agencies with an interest in recreation are the following in order of their administrative dedication to recreation:

National Park Service, U. S. Forest Service, Fish and Wildlife Service, Corps of Engineers, Bureau of Land Management, and the Soil Conservation Service. Only two of these agencies, the Park Service and the Forest Service, manage a significant amount of land in Michigan. What is even more important to the study, is that neither agency has responsibility for any of the land within, or even near the study area. So, we must discount the influence of all federal lands on the open space problems of southeast Michigan.

The other two areas of federal open space involvement, technical and financial aid, will be treated together here. It seems best to describe the role that each of the various agencies plays on questions of open space. The following discussion then will proceed to treat each agency separately. It is perhaps one of the failings of our federal programs that they are so integrated with each other that they can be discussed as if the other programs did not exist.

Department of the Interior

Programs of the greatest potential value to the communities of the study area are provided by the Bureau of Sport Fisheries and Wildlife, and by the Bureau of Outdoor Recreation. Other agencies of the Interior Department do have an interest in various phases of open space, but the programs involved have little relevance to the problems of the study area.

The Bureau of Sport Fisheries and Wildlife has been actively engaged in efforts to restore fish and wildlife populations. Funds derived from the

administration of the Pittman-Robertson Wildlife Restoration Act of 1937, and the Dingell-Johnson Act of 1950 are distributed by the Bureau of Sport Fisheries to the various state agencies, the Conservation Department in Michigan.

The Federal Aid in Fish Restoration Act of 1950 (the Dingell-Johnson Act), authorizes Federal grants of up to 75 percent of the cost of projects designed for the restoration and management of all species of fish which have material value in connection with sport or recreation in the marine and/or fresh waters of the United States.¹

Congress annually appropriates a sum equal to the receipts from the 10 percent tax on all fishing equipment, and the combined total is then distributed to the various participating states. Much of the land within the State Game and Wildlife Areas has been purchased with money from the similarly administered Pittman-Robertson Act.

The Bureau is empowered to investigate the manner in which small watershed projects will affect the conservation of fish and wildlife resources. "Federal agencies constructing or licensing water development projects must consult with the Fish and Wildlife Service and the comparable State agency prior to construction."² The Bureau is also empowered to assist the local and regional planning efforts carried out under the "701" program of the Urban Renewal Administration, by providing information on the fish and wildlife aspect of the plans being developed. It should be noted that

¹ National Capital Open Space Project, Public Open Space Programs and Activities, National Capital Region (Washington: National Capital Regional Planning Council, 1963), p. 7.

² Ibid., p. 12.

the financial aid programs of the Bureau of Sport Fisheries and Wildlife are tied closely to the participation by the public in hunting and fishing. Any increase in the purchase of equipment for these two activities results in an increase in the funds made available to the states. Thus any program undertaken by the state or local government to encourage hunting and fishing will result in an increase in funds available. Those states such as Michigan with fine wildlife resources receive the greatest benefit from the wildlife restoration programs.

The Bureau of Outdoor Recreation was established as a result of the recommendation of the Outdoor Recreation Resources Review Commission. The Bureau has four main responsibilities: formulation of a nation recreation plan, research into recreation, coordination of the recreation programs of the various Federal agencies, and technical assistance to states and local governments.

Of these responsibilities, the last, technical assistance, is the most important for local governments. The Bureau does not have facilities to provide advice on questions of city parks or playgrounds, but municipal and metropolitan parks of a non-urban character are eligible for aid.

Priority in responding to agency requests for technical assistance is given to States, regions, counties, and municipalities, in that order... Local public agencies are construed to include semipublic nonprofit organizations such as the Boy Scouts of America, Girl Scouts of America, 4-H Clubs, nonprofit camping or recreation organizations of churches, and educational institutions.¹

¹ Bureau of Outdoor Recreation, Federal Assistance in Outdoor Recreation, Technical Publication #1 (Washington: U. S. Government Printing Office, 1964), p. 3.

The local governments of the study area, though low on the priority scale can receive technical aid from the Bureau of Outdoor Recreation. Where the state program of technical assistance is small, as it is in Michigan, this federal aid should be welcomed. Because of the scope of its program, the Bureau of Outdoor Recreation can provide aid based upon the national experience, and not just limited to experience from one area. If the open space and recreation developments throughout the country have any relevance to each other, then it can be hoped that the Bureau of Outdoor Recreation can provide the link between states and communities so that the experiences of one community, whether successful or not, are not lost to other communities.

Department of Agriculture

The Department of Agriculture has undergone substantial changes in outlook and in programs since the advent of the depression. It is no longer concerned almost exclusively with problems of crops, livestock, and soil erosion. An excerpt from the preface to the 1963 Yearbook of Agriculture is illustrative of the breadth of present USDA policies.

Our purpose is to inform all Americans about the effect of urbanization and industrialization on rural America and the need for plans and action so that people will have a proper place to live. Many of the forces of change are most apparent in the urban-rural fringe, but our interest is in functional, rather than geographic, aspects - in the interaction of rural and urban influences wherever they occur.

The changes affect the welfare of everyone. City people and country people have a stake in the maintenance of

healthy conditions in country and city. Because a progressive, viable rural economy and the full use of its resources benefit the entire Nation, we stress the unity of our interests.¹

In light of the above, it is not at all surprising that long sections of the Yearbook deal with problems of government, the need for planning, and the need for open space.

With this introduction it should not seem at all strange that the programs of the USDA should prove highly relevant to the open space needs of our metropolitan areas. The coming years will see the USDA increase its concern with metropolitan area problems.

The Economic Research Service of the USDA is responsible for conducting research that is relevant to the programs and interests of the Department. They are presently engaged in a number of studies that are related to the local open space problems discussed in this study. Among the studies are the following: study of values and trends in the farm real estate market in the rural-urban fringe, research in rural zoning and related measures, research on land use and ownership, research on assessment and taxation of farm land, and a study of local resource organizations.

The taxation studies have dealt with the relationship between farm taxation and the spread of suburbanization, and an exploration of alternative methods of assessing farm land. Thus these studies have a direct bearing on the problem of the preservation of non-public open space. Additional studies have included the following:

¹U. S. Department of Agriculture, A Place To Live: The Yearbook of Agriculture, 1963 (Washington: U. S. Government Printing Office, 1963), p. ix.

Recreation as a source of accelerated economic activity in low-income areas both within the farm and within the context of community development; recreation as a source of employment for rural people in low-income areas; recreation as a land use, including broad inventories of recreation use of land and water and appraisals of recreation as an economic employment of land and water resources; recreation as a part of river basin and watershed development programs; and the legal-institutional aspects of recreation use of land and water, including the nature and distribution of rights to these resources and their organization and use by individuals and groups.¹

There is perhaps a danger that such studies, valuable as they are, may not prove of any use to local communities unless their findings are communicated to interested parties. The effective functioning of the Bureau of Outdoor Recreation could do much to reduce this danger.

The Farmers Home Administration is concerned with making loan funds available to farmers who have been unable to secure needed financing elsewhere. The loans may involve the use of federal funds, or they may merely be in the form of loan guarantees that encourage private lending.

Title IV of the Food and Agriculture Act of 1962 broadened the purposes for which the loans may be granted to include a number of farm recreation enterprises. Up to \$60,000 is available to farmers under the stipulation that they continue to receive a considerable portion of their income from farming. This provision is included in order to exclude commercial developers from the program. Low-interest, long-term loans are also available to nonprofit organizations benefiting farm and other rural families. The loans may cover the cost of changes in land use including recreation.

¹ Bureau of Outdoor Recreation, op. cit., pp. 17-18.

Watershed loans are available to various local organizations to help finance their share of the cost of an approved Small Watershed Project.

Loan funds may be used to pay the applicant's share of the cost of flood control dams and reservoirs, water supply reservoirs, rural water supply distribution systems, diversion dams, irrigation canals, drainage facilities, recreation facilities, easements, and similar purposes.¹

The financing of Small Watershed Projects should not prove difficult for any community that makes full utilization of the grants available through the Soil Conservation Service, and the loan funds administered by the Farmers Home Administration.

The Soil Conservation Service is responsible for a number of programs related to recreation and open space. The two most important of these programs are the Small Watershed Act, and the Resource Conservation and Development Projects Program. Technical assistance to individual land owners is also available through the SCS on questions of soil and water conservation.

The Resource Conservation and Development Projects Program was established as part of the Food and Agriculture Act of 1962. It involves federal assistance for the planning and financing of land conservation and land utilization projects in an area of substantial size. Priority is given to the largest project, those including more than a county, and projects are expected to average from one to two million acres in size.²

¹ National Capital Open Space Project, op. cit., p. 41.

² Ibid., p. 31.

The resource conservation projects will cover a multitude of benefits and concepts, including not only the conservation of soil and water, but also insuring the most productive use of available land, converting certain farm land to conservation and wildlife purposes, increasing income opportunities of farm families, attracting industry to rural areas, etc.¹

The Soil Conservation Service has primary responsibility for coordinating the planning and implementation of these programs. SCS staff members aid the communities in planning a project and in securing aid from all other related agencies of the federal and state governments. The SCS makes low interest long-term loans available for such projects, although any loan in excess of \$250,000 must receive the approval of the agriculture committees of the House and Senate.

The Small Watershed Act (P. L. 566) involves areas usually substantially smaller than the Resource Conservation and Development Projects, and projects of less scope. Projects undertaken under the Small Watershed Act may include not more than 250,000 acres, all of which must be part of a specified watershed.

This program bridges the gap between the soil and water conservation programs carried out on individual farms and other lands, and the flood prevention and resource development program carried out in the major river basins.²

Another distinction between the Small Watershed Program and the Resource Conservation and Development Program is in the extent of federal aid available. The Small Watershed Act makes provision for extensive

¹Ibid.

²Ibid., p. 24.

grants to cover specified portions of a project. The federal government will pay the full cost of the following parts of a project: flood prevention, engineering services for agricultural water management, and engineering services for the enlargement of structures intended for recreation or fish and wildlife purposes.

The federal government will bear up to 50 percent of the cost of the following: land, easements, and rights for recreation, fish and wildlife, construction of agricultural water management works, and construction of recreation, fish and wildlife projects. As was mentioned earlier, federal loans are available through the Farmers Home Administration to cover the local share of the costs of a Small Watershed Project. Aid for the recreation parts of projects was first included in the Act after it was amended in 1962. The recognition of the significance of recreation in watershed projects is an indication of the growing awareness of the need to meet open space and recreational land needs.

The Small Watershed Act is designed to provide aid to local communities. Thus the project must be locally initiated and must have the support of a local governmental unit that has the authority to raise funds, purchase lands, condemn land when necessary, and to enter into a contract with the federal government. A benefit-cost analysis of the project must be made and it must be determined that benefits will exceed costs before any federal funds may be expended.

The communities of southeast Michigan are presently utilizing the

Small Watershed Act on a number of watersheds. One project, on the south branch of the Cass River in Sanilac, Lapeer, and St. Clair Counties, has been authorized for operations and construction has already begun on the \$700,000 channel improvement portion of the project. The entire project involves 93,600 acres. Three other projects in the study area have been authorized for operations, and construction is expected to begin during the summer of 1964 on each project.

The Misteguay River Watershed project, involving 104,000 acres in Saginaw and Genesee Counties, is the largest authorized project in the study area. The other two authorized projects awaiting the initiation of construction are the Fowlerville Watershed, 1,500 acres in Livingston County, and the north branch of Mill Creek Watershed, involving 46,500 acres in Sanilac, Lapeer, and St. Clair Counties.

Five separate applications have been submitted involving the Raisin River Watershed in Hillsdale, Lenawee, and Monroe Counties. The total area to be included in the five projects is about 600,000 acres. The applications for the projects have been approved by the State Soil Conservation Committee, and have been submitted to the Soil Conservation Service for detailed planning and approval. Four additional projects, mostly small, have been proposed and are now being investigated by the State Soil Conservation Committee. It is difficult to know at this stage whether these four projects will ever be initiated.

In as much as river valleys can be the key to open space and recreation

land planning, the Small Watershed Act has provided Michigan communities with a great opportunity to utilize the technical and financial assets of the federal government to achieve local open space, and water conservation objectives. Small Watershed projects must be initiated by local groups, and thus we come again to the issue of local responsibility. The multitude of programs provided by the federal government are of little value unless local citizens are willing to utilize the aid offered.

The potential role of the Federal Extension Service, and the Office of Rural Areas Development (RAD) is closely related. The county Extension workers and community development specialists work to further the goals of Rural Areas Development.

Rural areas development is a coordinated program designed to help rural areas make better use of all available public and private facilities to promote better utilization of human and natural resources in rural areas... The Office of Rural Areas Development has been delegated the responsibility for coordinating the work of all developmental agencies that can contribute to rural areas development. The Federal Extension Service does the organizational and educational work.¹

Through the development of an Overall Economic Development Plan (OEDP), a county determines what projects are necessary to create a better utilization of the resources available in the county. The programs of other federal agencies, FHA, SCS, ASCS, ARA, and URA may be utilized to meet the goals established in the OEDP. In some cases, as in the loans or grants administered by the Area Redevelopment Administration, the

¹Ibid., pp. 44-45.

OEDP must be prepared and accepted before any federal assistance can be granted.

The Agricultural Stabilization and Conservation Service is concerned with programs for individual farmers, rather than with community-wide or county-wide programs. However, to the extent that the improvements initiated prove valuable to an individual, they also aid the entire community. Improved land conditions on one farm may well affect other farms.

The three main programs of the ASCS are the Crop Land Conversion Program, the Agricultural Conservation Program, and the Conservation Reserve, or Soil Bank Program. In the Crop Land Conversion Program grants are made to farmers for taking land out of the cultivation of row crops or small grains, and converting it to grass land, forestry, recreation or wildlife use. The Agricultural Conservation Program involves cost sharing of about 50 percent of the cost of instituting soil, water, and wildlife conservation practices. The Conservation Reserve Program involves payments to farmers for removing land from cultivation for periods of three to ten years. While authorization for the Soil Bank expired in 1960, contracts made before that time will remain in effect. We turn now to the agency most directly concerned with the open space problems of metropolitan areas, the Urban Renewal Administration.

The Urban Renewal Administration

The Urban Renewal Administration, a division of the Housing and Home Finance Agency, has two programs which have a direct bearing on open

space needs: the Open Space Land Program, and the Urban Planning Assistance Program, otherwise known as the 701 program.

The Open Space Land Program was established under Title VII of the Housing Act of 1961. The purpose of the Title is as follows:

It is the purpose of this title to help curb urban sprawl and prevent the spread of urban blight and deterioration, to encourage more economic and desirable urban development, and to help provide necessary recreational, conservation, and scenic areas by assisting State and local governments in taking prompt action to preserve open-space land which is essential to the proper long-range development and welfare of the Nation's urban areas, in accordance with plans for the allocation of such land for open space purposes.¹

The Act provides for federal grants to be paid to state and local governments for the purchase of undeveloped or predominantly undeveloped urban land of value either for recreation, conservation, or historic and scenic reasons.

A basic provision of the Act is that any government that applies for a grant must submit evidence that the proposed open space land is part of a comprehensive plan for the city, region, or state, or if the community is engaged in preparing a plan under the specification of the "701" program. The grants amount to 20 percent of the cost of the acquisition of the land or interests in such land. If the grant application is part of a plan that involves part of all of a metropolitan area then the grant is increased to 30 percent of the cost. The Act clearly demonstrated Congress' desire to encourage regional planning efforts.

¹United States Congress, The Housing Act of 1961, Public Law 87-70, 87th Congress 1st Session, 1961, Title VII - Section 701(b).

Section 704 of the Title provides that land acquired under the provisions of the Act may not be converted to any use incompatible with the open space objectives presented in the comprehensive plan. If such conversion proves necessary to fulfill a later plan then land of equal market value and equal open space value must be substituted for the land to be taken out of open space use.

Total funds authorized under the Act were \$50 million. If all grants made were for 30 percent of the project cost then this federal expenditure would act as a stimulus to a program amounting to a total of \$166 million. Since all grants have not been for 30 percent the total size of the program will be far larger, probably close to \$200 million. There seems to have been no indication of a wholesale rush to submit applications, an indication of the reluctance of local governments to act in response to a Congressional stimulant in the form of aid funds.

There have been a considerable number of grants made to communities within the study area. There have been five grants to cities, two to the Huron-Clinton Metropolitan Authority, and one to the State Department of Conservation, primarily for land within the study area.

The city grants, to Ann Arbor, Pontiac, Monroe, Warren, and St. Clair Shores, involve a total of 1,185 acres and \$374,000 in federal grants. The two Huron-Clinton grants cover 1,065 acres and \$259,000 in federal money. The Conservation Department grant involves 2,000 acres and \$350,250 in federal money.

Due to the planning provision of the Open Space Land Program, the "701" Urban Planning program is of great significance. Once a "701" plan has been prepared and accepted by the Urban Renewal Administration then the process of applying for Open Space grants is greatly simplified.

The "701" program was authorized by the Housing Act of 1954, and provides for federal grants covering two-thirds of the cost of preparing a comprehensive plan. When the community involved has a population of less than 50,000 money is channeled through an appropriate state agency, the Economic Expansion Department in Michigan. Grants are made directly to metropolitan planning agencies for communities of more than 50,000.

Grants may be made to communities for the purpose of the preparation of an OEDP to be used to participate in the RAD program of the Department of Agriculture, and the ARA program of the Department of Commerce. The recently prepared OEDP from the Upper Peninsula County of Gogebic was partially financed with "701" funds.

Planning relevant to the future needs of a state, conducted either by a state planning agency or by another planning or research organization, may be undertaken with the aid of "701" funds. The Outdoor Recreation Lands Plans of Oregon, Tennessee, and Wisconsin were prepared with the aid of "701" funds.

The Department of Resource Development is currently engaged in an "Analysis of Future Demand for Outdoor Recreation" to be presented as part of A Public Land Recreation Program for Michigan. This outdoor

recreation demand study is being conducted under a contract from the Michigan Department of Economic Expansion with the 701 program providing the primary source of funds, in this case amounting to nearly \$80,000.

The study will consist of two main areas: prediction and policy.

The major objective of this study is to provide a basis for projecting probable demands on Michigan outdoor recreation facilities in 1975 and 1985.

An important benefit of the study, closely related to the above, is to provide general guidelines for future planning based on the benefits and costs of alternative actions in developing the needed system of outdoor recreation facilities in Michigan.¹

Title I of the Housing Act of 1949 provides for the purchase of local park and recreation facilities as part of the local matching funds in Urban Renewal Project areas. The urban renewal plan, a prerequisite for federal aid, must contain adequate provision for recreation areas. The submitted plan may be a "701" plan.

As suburbanization increases and the perceived need for open space in our metropolitan areas becomes more acute it can be expected that the communities of the study area will be more willing to utilize the aid provided through the urban renewal, planning, and open space land programs of the Urban Renewal Administration. The federal Congress appears willing to continue to provide funds for the activities of the URA. The agency was one of the few specifically mentioned by President Johnson as being important in the anti-poverty campaign.

¹Leslie M. Reid, "An Outline for Analysis of Future Demand for Outdoor Recreation," A Project Outline (East Lansing: Department of Resource Development, Michigan State University, April 1963).

The Corps of Engineers

The Corps of Engineers of the Department of Defense, has responsibility for many water supply, flood control, and shore protection programs. Of these the most important for our discussion is the flood plain zoning assistance authorized by the Flood Control Act of 1960. Technical aid is provided to states and local communities, upon request, to provide for the proper use and zoning of flood plain areas that are subject to flooding.

Communities owning shore parks or recreation areas along the Lake Erie or Lake St. Clair shore may obtain federal aid in the protection of these sites. Section 103 of the Rivers and Harbors Act of 1962 provides that:

Federal participation in the cost of a project for restoration and protection of State, county, and other publically owned shore parks and conservation areas may be, in the discretion of the Chief of Engineers, not more than 70 percent of the total cost exclusive of land costs, when such areas include a zone which excludes permanent human habitation; include but are not limited to recreational beaches; satisfy adequate criteria for conservation and development of the natural resources of the environment; extend landward a sufficient distance to include, where appropriate, protective dunes, bluffs, or other natural features which serve to protect the uplands from damage; and provide essentially full park facilities for appropriate public use...¹

When coupled with the grants that are available under the Open Space Land Program, the Rivers and Harbors Act encourages the preservation of beach areas by local communities.

¹United States Congress, Rivers and Harbors Act of 1962, Public Law 87-874, 87th Congress 2nd Session, 1962, Title I - Section 103:a(2)

Summary

We have found that the State of Michigan is actively engaged in a recreation and open space program of their own in an effort to provide facilities for the citizens of the entire state. The State Legislature has made ample provision, through the passage of enabling legislation, for local communities to act to meet their open space needs. The Department of Economic Expansion has primary planning responsibility in the state, and is currently responsible for the administration of funds made available under the federal "701" program. While a number of our most urban states have acted to provide financial aid to local government in their effort to acquire open space land, Michigan has not yet done so, and there is presently no indication that they will do so in the near future.

The federal government, through a great variety of agencies is involved in open space. The exercise of federal proprietary power is extensive but not directly related to the solution of the open space problems of southeast Michigan. The technical and financial aid programs are highly relevant to the needs of local government.

Substantial amounts of aid are available to governments and individuals in rural areas through the programs of the U. S. Department of Agriculture. The Small Watershed program of the Soil Conservation Service is perhaps the most important in terms of total federal funds made available. Substantial amounts of technical aid and loan funds are available through other agencies within the USDA.

Planning in urban areas has been greatly facilitated by the "701" program of the Urban Renewal Administration. The Open Space Land Program of the URA has made aid funds available to local governments for the purchase of open space land within metropolitan areas. To a certain extent this program serves to meet some of the need that might better be alleviated by a State Aid Program. Open space is a recognized need in every urban renewal plan.

There is little doubt that aid programs are available either through the few state agencies providing technical assistance, or through the many federal agencies presently involved, either directly, or indirectly, in the problems of open space. It is difficult to know whether the programs now available are adequate to meet the needs. We cannot know this until the local governmental units of southeast Michigan are willing to make full use of what is currently available to them.

Responsibility in action, and recognition of problems are the really key issues. While it is not fair to burden local officials with responsibility for inadequate open space, they do exercise some influence over the activities of the governments that they serve. In the long run, it is the citizens, both individually and collectively in the interest groups, that will determine what actions their governments will take. We cannot, as the citizens of a community, complain that our open space needs are not being met.

CHAPTER VI

REVIEW AND RECOMMENDATIONS

Review

Throughout this study the concern has been with the need to provide sufficient open space within our urbanizing areas to meet the needs of the population for recreational land. We have noted that open space is needed for other purposes, among which are conservation, education, the direction of urban growth, and aesthetics.

We have seen that the steadily accelerating growth of the suburbs has already reduced the amount of available open space within the metropolitan areas. This growth has been sporadic and unordered, leap-frogging over sections of open land if the tax rates or land development costs are higher than other land further from the population center. For the developer the reduction of costs is far more pressing than a rational use of resources. This stranded open land, often in pieces too small to be used at a later time, is far too often turned into a parking lot or rubbish heap.

Subdivisions have been developed on the banks of our streams, creating runoff and flooding problems, and have occupied that land often most suited for park use. In some cases we have allowed the streams of our urban areas to become open sewers, while we willingly travel fifty miles to spend an afternoon on the banks of some quiet lake or stream. Ours is a society

full of contradictions. Often we seek that which we have so thoughtlessly destroyed. Our whole urban society mourns the loss of the pastoral qualities of rural life. Almost universally we cling to the nostalgic notion of grandpa's farm in the country.

Granted, our cities don't possess the natural land qualities of the still rural parts of the nation. The cities are often dirty, crowded, and dehumanized, and almost always unplanned and ugly. For this we have no one to blame but ourselves. We, in this great nation, just have not had sufficient concern to create a livable urban environment. Ugliness is the product of our failure to make our cities beautiful. This sounds like a piece of circular reasoning, but we must remember that the creation of beauty must be an actively-pursued goal, while ugliness seems to be the ordinary by-product of our mass produced and tasteless culture.

The urbanization of our nation, accompanied as it inevitably must be by the loss of the rural quality of life, has resulted in a dramatic increase in the demand for recreational and other open space land. Many factors have contributed to the increase in total demand. Changes in demand have paralleled the changes in the characteristics of our population. Population growth alone has accounted for a large portion of the demand increase. Changes in age structure and family size have been responsible for part of the increase. Increasing incomes and improved educational levels have also contributed to the increase.

Open space is now abundant in the vacation areas at considerable

distance from the population centers. The land presently held by the federal government is concentrated in the western states although there is considerable federal forest acreage in Michigan, and one National Park, Isle Royale. The largest portion of the state's open space is located in the northern half of the Lower Peninsula, and in the Upper Peninsula. These lands, amounting to over 3 million acres are beyond the day trip zone for most of the population of the state.

There is considerable open space located within the study area of southeast Michigan. A number of state recreation areas and the parks of the Huron-Clinton Metropolitan Authority account for the largest portion of the public open space of southeast Michigan. Wayne County, as well as a number of the larger and older cities of the region also own large blocks of open land. Aside from Wayne County, the nine other counties of the study area have either no park lands or very little. Most of the newer suburban cities of the area have inadequate open space resources. Many of the cities have less than two acres of park land for each 1,000 of the population, well below the minimum standard established for ten acres for each 1,000 people. Most townships have no open space at all to satisfy the daily needs of their inhabitants, which, because of the growth of suburbanization, are not always living on farms.

It is very difficult to pinpoint the source of responsibility for the provision of open space. Whom do you blame if you are dissatisfied with conditions around you? The private citizen will blame the government,

either because it does too much or too little. The officials in local government will blame the state because they do not receive enough financial support to initiate the programs that they might like to institute. And this author finds it difficult not to place the basic responsibility squarely on the shoulders of the citizens of each community.

A survey of the attitudes of township supervisors toward questions of open space, revealed that many of them are not even aware of the problems that face them or will soon face them. Too many of them were able to say that they anticipated no problems arising from urban growth in their communities. The lack of adequate services, high taxes, the lack of open space, the inefficiency of the fragmentation of local governments, are problems that were ignored by many of the supervisors.

A small minority of the respondents seemed well aware of the problems and issues that would face them if their townships became more urbanized. Their relative youth and high educational achievement may make this minority an effective "change agent." If they are able to exercise enough influence over their more conservative peers then it is possible that the local governments of southeast Michigan will begin to act in a more vigorous manner to meet the growing demand for open space land. In the absence of an overall reorganization of local governmental structures, an event that seems unlikely, the county, municipal, and township governments will have to act to meet open space needs.

There are many methods by which public agencies may acquire open

space. The most common of these is the purchase of the fee simple title. This method results in the granting to the community the right to develop and use the land as they see fit. In cases where public access and intensive use is expected, no other acquisition device is as satisfactory. Unfortunately, especially for communities with limited tax resources, the purchase of the fee title is often a highly expensive arrangement.

Many open space uses do not necessarily involve public access or development of the land. The public purpose can be met simply by knowing that the land will not be converted to a non-open space use. Through the use of the open space easement, a community can purchase from a private owner his right to develop his land. By purchasing just part of the owners "bundle of rights" the communities needs are met, and the income producing qualities of the land remain unimpaired. The public has bought the right to convert the land to a land use incompatible with the open space objective of the community. The cost of such an easement is usually well below the cost of the fee simple title.

The use of easements should, wherever possible, be in conjunction with some form of tax relief for the land owner. This would tend to offset the present trend of assessing land potentially suitable for development at a rate comparable to land already developed. High tax rates have forced some land owners to sell their land to developers. If such owners were taxed at the rate appropriate for undeveloped agricultural land they would be less inclined to sell to a developer and more inclined to grant an open space easement to the community.

Stream valleys can serve as the skeleton of a system of open space land. Land on the flood plain can be zoned against development, since the construction of improvements on the flood plain would tend to increase the possibility that flooding would produce damage. The cost to the public of constructing flood control works to protect flood plain developments is far higher than the cost of preventing development and using the land as a conservation preserve, and as recreation land where appropriate.

The abandonment of minimum lot zoning in favor of density zoning would be of great advantage in meeting open space needs. Density zoning permits housing units to be constructed on relatively small lots so long as the subdivision as a whole has a generous amount of land set aside for public open space. Housing units are clustered in small groups, with the land between each group remaining open. The community benefits from an increase in open space, and a reduction in the cost of providing essential services such as streets, water, sewers, and power. The developer also saves on the cost of the initial construction of streets and sewers and on the cost of leveling an entire tract prior to construction. If the subdivision is to be built on a wooded tract, the bulk of the forest cover can remain, leaving the development with a highly desirable environment. The development of new open space concepts has kept pace with the increase in the demand for open space. The problem as always with the initiation of new ideas into a society, has been the cultural lag which retards the implementation of these new open space concepts.

The limited fiscal capacity and lack of specialized technical aid available to local units of government make the provision of state or federal aid also a necessity if open space goals are to be met. Only the larger cities can afford to hire the assistance necessary to work out all the technical aspects of open space problems. In the absence of regional efforts, small units of government can seek whatever aid is available to them. Technical and financial assistance through the department of the State of Michigan are very limited. Planning aid is available from the Department of Economic Expansion, but a large part of their aid program is actually financed by the federal government in the form of "701" planning grants. The Michigan Inter-Agency Council for Recreation, though severely limited in staff and funds does act as a clearing house for local requests for aid in matters involving recreation and open space.

The federal government is currently engaged in a great number of programs that provide technical and financial aid to state and local government on matters of open space and recreation. The newly created Bureau of Outdoor Recreation promises to provide valuable services to state and local governments by way of conducting research, and coordinating the programs of all federal agencies involved in recreation.

The U. S. Department of Agriculture administers programs of technical assistance, through the Extension Service and the Soil Conservation Service, research through the Economic Research Service, loan funds and guarantees through the Farmers Home Administration, and grants through

the Soil Conservation Service and the Agricultural Stabilization and Conservation Service. Of the many programs, the Small Watershed Program administered by the SCS is the most significant for local governments in meeting their open space needs.

The Urban Renewal Administration administers the program most directly related to the provision of open space. The Open Space Land Program provides for federal grants to state and local governments for the purchase of undeveloped land within metropolitan areas. This program has already been utilized in southeast Michigan to purchase about 4,000 acres. This program, as well as most federal programs, stipulates that aid must be requested by the local community before any action can be taken. As always we return, magnet like, to the question of the willingness of local governments to act in the face of an obvious need.

Recommendations

It is always difficult to assume that one has sufficient wisdom to make recommendations and suggest changes in the established way of doing things. Such recommendations are especially presumptuous when it appears likely that the order to be changed is highly resistant to change. This is the case with the problem of open space in southeast Michigan. Governmental organization in Michigan, as it is throughout the nation, is based on the needs and concepts of our founding fathers. The county-township system was established along with the first rectangular surveys during the nineteenth century. While a multitude of incorporated cities

have appeared, the rural areas of the state are still organized as they were in 1837 when Michigan was admitted to the Union as a state.

Suburbanization has resulted in the creation of many small incorporated towns and cities, each attempting to provide its citizens with the basic community facilities. A glance at the map of the study area will reveal the pattern of small units surrounding the urban core of Detroit, a pattern that is repeated for every large city in the country.

Some of these towns serve only as dormitory communities for commuting city workers. They have little, if any, industrial or commercial tax base. As a result property tax rates are high in order to raise sufficient funds to provide the minimum of services. Any need to expand the range of services offered may result in a fiscal crisis for the community. Township, county, and municipal governments are limited by the Constitution to a total of fifty mills on each dollar of assessed valuation without special authorization of the voters. Communities in need of additional facilities are faced with the prospect of high taxes and high indebtedness, and perhaps a reduction in other less essential services. The recent example of the City of Grand Rapids illustrates what can happen when the voters of a municipality reject further tax increases, and are willing instead to permit a reduction in the extracurricular programs of the entire school system.

It is in this context that the reorganization of local government seems an obvious first step in solving the open space problems of southeast

Michigan. Just as they cannot afford adequate sewage treatment plants, many local governments can ill afford the purchase of title to, or interests in open space. And they may not place the acquisition of open space on a high enough priority to proceed with the necessary financial arrangements. The study of the attitudes of the township supervisors indicates that many do not place open space on the top of a priority list.

If reorganization resulted in a significant reduction in the number of local governments within our metropolitan areas, then we might expect that substantial economies of scale might be achieved in the provision of community services. Within certain limits, the larger a police or fire department, the more complete and efficient its services can be. Per-capita costs for large sewage treatment plants or water supply systems are well below those associated with the small projects often undertaken by suburban communities. A larger school system provides for more specialization both in facilities and teaching staff and as a result greater educational opportunities.

Similarly, a metropolitan system of open space could tie the now separate units together in an integrated whole that could meet the needs of all the citizens. The Huron-Clinton Metropolitan Authority was established with this goal in mind, and it has been relatively successful within the context of its concentration upon areas for day use. Crowding of the facilities of the Authority could be reduced if local open space were more adequate. Such a reduction in pressure would benefit all users of the

Metropolitan Parks, and thus the participation of the Authority in local recreation areas could easily be justified. The use of river valleys in southeast Michigan for parks makes the integration of a regional open space system so much easier.

Americans are very conservative people when it comes to changes that affect them directly, especially if they perceive of a change as reducing their freedom. It is possible that we have a distorted view of the role of individual freedom in a complex urban society. The idea of a metropolitan area government might well seem to coincide with a loss of freedom, and when considered in this light, public resistance to any reorganization of local government would be great, perhaps sufficient to block any change.

An increase in regional planning efforts and cooperation between local units of government could partially substitute for regional government. A metropolitan area can be considered as an integrated whole to the extent that events in one part of the region may well affect the other parts. Planning therefore should involve all units within the metropolitan area. The major limitation of regional planning efforts arises at the point of implementation. Without regional government there can be no assurance that each unit will participate in the carrying out of a plan. It is one thing to have a group of planners decide upon a plan for the region. It is quite another thing to have the citizens and local officials of each government accept the plan and be willing to contribute their share towards

its completion. The goals established in plans are too often subject to the process of amendments designed to reconcile local opposition.

Government is not an entity with a life of its own. It survives and functions only "with the consent of the governed." The ultimate issue to be faced in questions of open space is the value positions of the individuals that comprise a community. We cannot act without their consent, just as we cannot make recommendations that will be fought and defeated by those the recommendations are meant to aid. We must therefore speak of individuals.

It is perhaps appropriate for us to speak of education. We are concerned here with values held by individuals. The socialization process by which members of a society acquire the values that underlie the social system includes, in a complex system such as ours, the formal process of education. It is a moot point whether or not education can ever break down those values held to be most important to the individual and which were formed within the family setting. We are concerned here with values associated with land, with open space, and with conservation. It may be that the greatest obstacle to the achievement of open space goals will be those remnants of the pioneer philosophy which would have each unplowed field, and each uncut forest, tamed and brought under the full control of man. Throughout the westward spread of settlement the wild and unknown was a threat, sometimes imagined, but often very real indeed. The varment must be eliminated and the dark forest destroyed, the wild

fields plowed before the pioneer can feel that he is secure in his environment. It may be stretching a point to suggest that this feeling still exists, but its prevalence is significant enough in rural areas to provide rural people with a motivation to oppose any expansion in wild land.

The significance of education then may be to place man in proper perspective in relation to the natural world around him, and from which he originated and now derives, however distant the relationship may be, his sustenance. We need a great deal more humility as a society, we need to feel that man is but one element in the total natural world.

If this understanding of man's place in the total scheme of things can be acquired in the schools then part of the open space battle has been won. A derivative of such an understanding would be an appreciation of that which has not been built by man, but persists in a state not dissimilar to that found by the first settlers. Wilderness in the strictest sense of the term is not recreatable. However, wilderness for the child can consist of a small area, perhaps in a local park, where he can neither see nor hear the passage of our modern world, where he can feel that he is in contact with the Indians or whomever he thinks may have inhabited the wilderness.

For an adult, wild and open land becomes a form of relief from the oppression of the ugliness of our modern communities. Once one gains an appreciation of the natural world it is likely that as a citizen he will be willing to work for the preservation of enough open space to meet the needs

of the community. He will be motivated to do this because open space will have gained a priority position within the total value structure of the man. We are always willing to fight for that which we hold to be important.

Education can also produce individuals who are qualified to aid local governments in determining their needs and planning solutions. This is the role of the university. The Department of Resource Development already has the potential to do this; the fulfillment of that potential being dependent upon greater support from the University in the form of funds for faculty appointments and research. If the lower elements in the education system are able to create a greater interest in open space then it can be expected that more students will be interested in entering the field.

Education, governmental responsibility, regional planning: these are all elements that must in the end be derived from the underlying ethical foundations of our society. The ethical standards of each group are a more fundamental motivation for behavior than all the rational discussions of needs and means. Man's ethical concepts have been subject to a sort of evolutionary development, so that where once we were concerned primarily with how to behave toward another individual, we now also include a concern over our behavior, both individually and collectively, toward other groups of men. This concept, as presented by Aldo Leopold, must then be extended to what he calls the Land Ethic.

All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts. His instincts prompt him to compete for his place in that community, but his ethics prompt

him also to cooperate... The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land... A land ethic changes the role of Homo sapiens from conqueror of the land community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such... In human history, we have learned (I hope) that the conqueror role is eventually self-defeating.¹

Leopold states that our educational system has not been concerned with a land ethic, it has instead tried to justify conservation on purely economic terms. We should initiate conservation practices because the profit yielded by the land will be so much higher than without the practice. We have, so far, been unable to "sell" conservation to the public on any but economic grounds. The preservation of open space depends upon our acceptance of actions that do not have strong direct economic justifications. We must be willing to preserve open land because man as an organism needs it to survive, and because it is morally right for us to preserve it. We are not masters of this world, we are only members of the cast. We can sell open space on the basis of the needs already discussed in this study, recreation, education, conservation, aesthetics, and urban growth direction. But open space sold to the public on the basis of economic, or purely practical reasons is subject to loss when and if the public finds that it does not really "need" open land for recreation. The permanent preservation of our open land must rest eventually upon the land ethic. The eloquence of the closing pages of Leopold's book can serve

¹ Leopold, op. cit., pp. 203-204.

as a conclusion to this study far better than anything further that this author can say. The Sand County Almanac is an inspirational work that means far more to me than many a rationally conceived volume of triviality.

It is inconceivable to me that an ethical relation to land can exist without love, respect, and admiration for land, and a high regard for its value. By value, I of course mean something far broader than mere economic value; I mean value in the philosophical sense...

The "key-log" which must be moved to release the evolutionary process for an ethic is simply this: quit thinking about decent land use as solely an economic problem. Examine each question in terms of what is ethically and esthetically right as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community...

By and large, our present problem is one of attitudes and implements. We are remodeling the Alhambra with a steamshovel, and we are proud of our yardage. We shall hardly relinquish the shovel, which after all has many good points, but we are in need of gentler and more objective criteria for its successful use.¹

¹Ibid., pp. 223-226.

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APPENDICES

APPENDIX A

QUESTIONNAIRE SENT TO TOWNSHIP SUPERVISORS

The following are statements about some of the problems that face local government in Michigan. Some people agree with the statements, some strongly; some people disagree, some strongly. We would like to know how you feel about these statements. Please mark (x) each statement according to your agreement or disagreement as follows:

Strongly disagree. SD
 Disagree D
 Undecided or no opinion . . U
 Agree A
 Strongly Agree SA

	<u>SD</u>	<u>D</u>	<u>U</u>	<u>A</u>	<u>SA</u>
1. The burden of providing adequate park lands should be borne by the local government.	_____	_____	_____	_____	<u>6</u>
2. In spite of a tax loss, state owned lands benefit local governments a great deal.	_____	_____	_____	_____	<u>6</u>
3. The Federal Government is already too large and shouldn't be engaged any further in local governmental affairs.	<u>6</u>	_____	_____	_____	_____
4. Much of the remaining rural land in the greater Detroit area will soon be developed for subdivisions.	_____	_____	_____	_____	<u>6</u>
5. Local governments (county and township) should pass zoning ordinances to control the use of rural lands.	_____	_____	_____	_____	<u>6</u>
6. People from Detroit have not the right to crowd and litter our local parks.	<u>6</u>	_____	_____	_____	_____
7. The only way to prevent floods today is by the construction of flood control structures.	<u>6</u>	_____	_____	_____	_____

	<u>SD</u>	<u>D</u>	<u>U</u>	<u>A</u>	<u>SA</u>
8. Floods are increasing because of a reduction in the amount of open land near our cities.	_____	_____	_____	_____	<u>6</u>
9. There isn't much that we can do to prevent urban sprawl.	<u>6</u>	_____	_____	_____	_____
10. The interests of private investors and local government aren't often in disagreement	<u>6</u>	_____	_____	_____	_____
11. It is important for your community to remain distinguishable from the advancing suburbs.	_____	_____	_____	_____	<u>6</u>
12. There is much that higher levels of government can do to help local governments with their land problems.	_____	_____	_____	_____	<u>6</u>

Discuss the following questions as fully as you care to.

13. What do you feel to be the primary educational value, if any, of outdoor education and school camping?

14. Do the schools in your area have an outdoor educational program?

15. Who is responsible for providing adequate outdoor recreation and park facilities for the daily use of the citizens of each local community? WHY?

16. Should the growth of cities and suburbs be controlled to prevent the unwise and uncontrolled use of natural resources such as land and water? WHY?
17. Do you feel that local governments should develop a comprehensive plan for growth, and then enforce the provisions with a zoning ordinance? WHY?
18. Do you feel that your area will become more urban in character in the next few years? What makes you think this way?
19. If your area does become more urban what do you think will be the disadvantages of such a development?
20. If your area becomes more urban, do you think that more will have to be done to ensure the preservation of open land? What can be done?

21. Do you feel that it is important to maintain some agricultural or forest land in your area even though conversion to urban uses would bring a greater profit to the land owner, and possibly a larger tax base? WHY DO YOU FEEL THIS WAY?
22. What can your local government do to prevent the bad effects of urban sprawl?
23. What role should the State and Federal Governments play in helping you to solve your problems? Technical assistance, cost sharing, or other arrangements and approaches?

PLEASE RECORD THE FOLLOWING INFORMATION ABOUT YOURSELF:

24. In what County and Township do you live? _____County
_____Township
25. What is your present age? _____
26. How many years of school did you complete? (circle one number)
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
27. What is your major occupation? _____
28. Do you have a second job or occupation? _____

29. Where do you live? (check one alternative)

(a) on a farm _____

(b) in the country but not on a farm _____

(c) in a town or city of less than 2,500 . . _____

(d) in a town or city of 2,500 to 10,000 . . _____

Thank you very much for completing this questionnaire. As I said before, your answers will remain completely confidential. If, however, you are willing to be interviewed in person by me to discuss these matters further, please sign your name below.

APPENDIX B

CORRESPONDENCE ACCOMPANYING QUESTIONNAIRE

DEPARTMENT OF RESOURCE DEVELOPMENT

April 13, 1964

Dear Supervisor:

The Department of Resource Development in the College of Agriculture is requesting your help in deciding whether or not the question of "open space" needs additional research effort. Throughout the country this topic is receiving a great deal of attention. If this topic is an important one here in Michigan and if useful answers can be determined by research, we have a responsibility to seek those answers through research.

We have asked Mr. Richard Wolfe, a graduate research assistant in our department, to make a preliminary survey of some 200 township supervisors in the southeast Michigan area. From this survey we are hoping to determine your attitudes about the importance of this topic in your area. This preliminary survey is independent of any agency program or policy action now underway or contemplated. Strictest confidence will be maintained and only Mr. Wolfe and I will have access to the individual returns.

It is our hope that you will feel free to express yourself on these matters. Your responses will determine the future course of our research efforts which in turn will result in better information for your decision making at the local level.

Sincerely yours,



Milton H. Steinmueller
Assistant Professor

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MICHIGAN STATE UNIVERSITY EAST LANSING

DEPARTMENT OF RESOURCE DEVELOPMENT

April 13, 1964

Dear Supervisor:

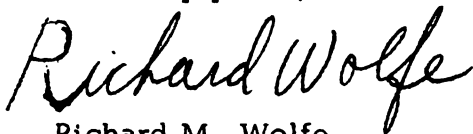
I am a graduate student in the Department of Resource Development here at Michigan State University. In connection with the work of the Michigan Agricultural Experiment Station I am conducting a study to determine "open space" needs for southeast Michigan. By open space, I mean any land that is predominately undeveloped for any urban use such as subdivisions, highways, or shopping centers; in other words, farms, forests, parks, etc.

As part of my study I need to know how you feel about some of the important issues involved in this question of "open space." Since it is you who make the ultimate decisions in matters of local government it is very important for me to know your personal opinion on these questions.

Of course all answers are completely confidential and your questionnaire will be included with 200 others in making up my final report. There will be no way for anyone else to know the individual identity of the supervisors who have been surveyed.

Your cooperation and early return of the questionnaire will be greatly appreciated since I am counting on you to help me in my work. The stamped, addressed envelope may be used for the return of the questionnaire. Thank you.

Sincerely yours,

A handwritten signature in cursive script that reads "Richard Wolfe". The signature is written in dark ink and is positioned above the typed name.

Richard M. Wolfe
Graduate Research Assistant

RMW:dm

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