

THE ROLE, USE AND BENEFITS OF NATURAL RECREATION AREAS WITHIN AND NEAR RESIDENTIAL SUBDIVISIONS

Christine A. Vogt

Research Investigator at Institute for Social Research, University of Michigan and Assistant Professor of Park, Recreation and Tourism Resources, Michigan State University, 131 Natural Resources Bldg., East Lansing, MI 48824-1222, 517-353-5190, vogtc@msu.edu

Robert W. Marans

Professor of Architecture and Urban Planning and Senior Research Scientist at Institute for Social Research, University of Michigan, 2000 Bonisteel Boulevard, Ann Arbor, MI 48109-2069, 734-763-4583, marans@umich.edu

Abstract: This paper presents results from a recent study about the role of natural resources in residential development. Data were collected using focus groups and a home owner questionnaire in selected subdivisions in two rapidly growing counties located at the urban/rural fringe of the Detroit Metropolitan area. Developers of the selected subdivisions planned for and created recreation opportunities such as trails, nature observation decks, beach and marina areas, and sledding hills for the residents. Recent home buyers considered the natural features of a lot and the neighborhood when shopping for a home, however many other factors such as highway access, schools, and financial factors were also very important. Based on questionnaire data, the most important factor in buying a house was a relaxed and comfortable environment followed closely by the natural features of the neighborhood. A majority of the residents did not visit a state or regional park in their own county and a majority did not buy an annual entrance pass for either state parks or regional parks. Finally, residents reported a wide range of social, economic, psychological, environmental and physical benefits from having natural areas beyond their own yard. Implications for public land managers, local governments, developers and residents are discussed.

Introduction

As urban areas continue to increase and expand into rural areas, the role and health of natural resources such as rivers and lakes, forested areas, and wetlands is subject to change with development and increased recreation use. Some households move into these fast developing fringe metropolitan areas to leave the urban environment, while other households move to fringe areas because of the draw of the rural area and natural resource amenities. Studies done in the 1970s (e.g., Duncan & Newman, 1976; Michelson, 1977) show home buyers seek new housing to be closer to work, for more living space, a desire to live with compatible neighbors, and leave urban ills such as noise and pollution. Studies of home buying in outlying rural areas show people are attracted to the outdoors, trees, and the natural settings (Marans & Wellman, 1978; Stewart & Stynes, 1994). More recent studies on home decision

making (Davis, Nelson & Dueker, 1994; Feitelman, 1993; Nelson, 1992) have begun to document the draw of living in tranquil environments and near preserved land and parks. As development continues into rural areas with natural resources, local and regional governments, developers, real estate firms and both long-time and newer residents will need a better understanding of the role, uses, and benefits of natural resources. Today, limited information exists about the role of natural resources in the decision processes of residential developers, homebuilders, and residents who have purchased homes in resource areas.

The purpose of our larger study is to understand how natural resources, including recreational opportunities, are considered by both developers in buying land and consumers in buying homes relative to other factors. This information can assist with conservation planning and programs undertaken by government, developers or citizens.

This presentation and paper focused on findings about recreation opportunities within and nearby newly developed subdivisions. Specifically the following research questions are addressed: (1) what natural recreation amenities do developers create in their subdivisions, (2) what role do recreation opportunities play in home and neighborhood selection, (3) to what extent do residents recreate in their neighborhood (besides their own yard), (4) to what extent do residents visit nearby large natural resource areas (i.e., state recreation areas, regional county parks), and (5) what benefits do residents derive from natural resources in their neighborhood.

Methods

Two counties outside the metro Detroit area were selected as the study area. Specifically, Livingston and Washtenaw Counties were studied because of their recent rapid population growth and residential development, which has occurred in significant natural resource areas. The two counties both contain a major river corridor (the Huron River), several regional parks, several state recreation areas, and significant acres of forested private land. Importantly, these two counties are located along the urban/rural interface and are currently experiencing many of the signs of urban sprawl.

Over a 12 month period, data were gathered from a convenience sample of local government officials and planners (n=9), residential developers (n=4), environmental groups (n=5), and residents (n=85) living in newer subdivisions which satisfied five selection criteria. The criteria applied to subdivision selection included: (1) location within one of the two counties studied, (2) availability of natural resources within or near the subdivision, (3) developments no older than eight to ten years old, (4) subdivisions of at least 25 houses, and (5) a variety of housing prices represented so that approximately half of the subdivisions studied represented housing under \$250,000 and the other half \$250,000 or more. Residents were queried as part of focus groups held at a home in the subdivision, while government officials, developers and environmental group officials were interviewed

individually. Interview or focus group scripts were used, sessions were taped, and comments were transcribed and analyzed. Residents also completed a five-page questionnaire during the focus group which provided limited quantitative data. This paper reports primarily results from the resident portion of the study.

Findings

Research question one asks "what natural recreation amenities do developers create in their subdivisions." Developers have many options in developing recreation amenities and preserving natural resources with subdivisions. Two of the twelve subdivisions studied included eighteen hole golf courses, in addition to other forms of un-buildable land or open space that was preserved. Seven other subdivisions which were labeled "forested open space neighborhoods" included natural resources such as forested areas, trails, lakes or ponds, wetlands, and limited playground or sport areas. These resources were owned by all of the residents of the subdivision. Three subdivisions which were labeled "limited open space neighborhoods" included no or few natural areas held in shared ownership. A summary of recreation and natural resources within, adjacent to, and nearby the subdivisions studied is found in Table 1.

Research question two asks "what role do recreation opportunities play in home and neighborhood selection." Many residents mentioned the importance of having a neighborhood where children could play safely, being able to exercise in the out-of-doors close to home, and being able to golf out their backyard, to just name a few comments made during focus group sessions. Using a likert-scale question, subdivision residents were also asked to think back to their home buying process and rate a list of 16 factors on the importance that each factor had when buying their current home. As shown in Table 2, the top two factors were a relaxed and comfortable environment and the natural features in the neighborhood. Three additional factors scoring four or more on the five point scale were the design of the neighborhood, location of the community, and the natural features of a specific lot. Several factors scored differently across the three types of subdivisions (i.e., forested, golf, limited). For example, home buyers in forested subdivisions rated natural features as more important than home buyers in limited open space subdivisions.

Research question three asks "to what extent do residents recreate in their neighborhood (besides their own yard)." A wide variety of outdoor recreation facilities and activities could be found across the twelve subdivisions studied. This list came from comments made during the focus groups sessions and from site visits. The most common recreation facility was wood chip trails, generally one mile or longer and located in the shared open space. Other outdoor facilities included paved trails not along the streets; fields for soccer, football or baseball; sledding hills; picnic areas; beaches and swimming areas; marines for boating, sailing and canoeing; fishing docks; gazebos or decks overlooking wetlands for wildlife viewing; golf courses; and neighborhood outdoor parties or sport games. In

addition, some subdivisions included more traditional recreation features such as basketball courts, playgrounds, and volleyball courts.

Research question four asks "to what extent do residents visit nearby large natural resource areas (i.e., state recreation areas, regional county parks)." While the researchers believed that nearby recreation facilities would be important to these home buyers, this feature was rated the least important in their home buying decision (see Table 2). The low consideration score is also reflected in the low park visitation levels. Table 3 provides data on the purchase of recreation annual passes for home owners in both counties. The most common purchase pattern across both counties was that neither a state park pass or regional park pass was purchased. Livingston County home owners studied were slightly more likely than the Washtenaw home owners to have purchased a state park annual pass. A greater portion of Washtenaw County home owners were likely to purchase both state and regional park passes. Livingston County home owners studied were very or fairly close to four parks and were asked how frequently they visit each park. Table 4 shows that a small percentage used the parks on a weekly basis. Kensington Metropark was the most popular regional park. Home owners typically had not visited the other three parks in the area.

The last research question asks "what benefits do residents derive from natural resources in their neighborhood." Answers for this question come from responses made during the focus group sessions and satisfaction ratings on the same factors scored for their importance when purchasing a home. Benefits were organized around benefit categories developed by Driver et al. (1991). These included social, economic, psychologic, environmental and physical benefits. More specifically, social benefits included a sense of community and stewardship that comes along with residents getting together and taking care of the open space and natural resources, and the convenience of being able to recreation and exercise very near to home. The economic benefits of having natural resources and open in a neighborhood centered around home appreciation. Many home owners had experienced or believe their homes would appreciate faster because these subdivisions were very desirable to live in. Psychologic benefits included the tranquility of being surrounded by nature which was relaxing, therapeutic, less stressful and calming; and the feeling of being on vacation every day in a vacation-like setting. Environmental benefits included habitat watching, the opportunity to teach children about the environment, and nature appreciation. Finally, the physical benefits referred to natural resources (i.e., trees) acting as a buffer between homes and other nearby land uses. Trees also provided privacy and a sense of distance from other houses. Satisfaction ratings were generally high (four or higher on a five point scale) across the nine items tested (reduced from the importance list to only measure natural resource or recreation factors). Home owners in the seven forested open space subdivisions studied were more satisfied with natural features, in general, compared to residents of the golf or limited subdivisions. For satisfaction scores see Table 5.

Table 1. Recreation Amenities and Natural Resources in Residential Developments

Name of Development	Township	County	Natural Resources/ open space within	Natural resources/ open space adjacent to	Natural resources nearby (within five miles or fifteen minutes)
<i>Golf Course</i>					
Oak Pointe	Genoa	Livingston	Golf course, lake, beach, marina, tennis courts, nature preserve	Brighton State Recreation Area (State of Michigan), Burroughs Recreation Park	Mt. Brighton Ski Area (Private)
Stonebridge Forested	Pittsfield	Washtenaw	Golf course, pond	none	none
Cobblestone Creek	Hamburg	Livingston	Trails, forests	none	Several small lakes within two miles. Public access is not known. Lakeland Rail-Trail
Hunters Pointe	Hamburg	Livingston	Trails, forests, gazebo	Shared open space resources(wetland and trail) with another open space community built by same developers	Huron Meadows Metropark, Brighton State Recreation Area, Island Lake State Recreation Area
Lakeshore Pointe	Oceola	Livingston	Lake, forests, trails	Thompson Lake	City of Howell parks
Solitude Pointe	Hamburg	Livingston	Baseball/ soccer fields, trails, forest	Private camp and recreation club	Huron Meadows Metropark, Brighton State Recreation Area, Hamburg Township parks
Brass Creek	Webster	Washtenaw	Playground, wooded lot, pond	Huron River	Hudson Mills Metropark
Matthaei Farms	Ann Arbor	Washtenaw	Ponds, wetlands, rolling terrain, prairie, forest, trails	Sheep farm, botanical gardens, golf course (University of Michigan)	Gallup Park (City of Ann Arbor)
Wildwood	City of Saline	Washtenaw	Wetlands, trails	none	City of Saline parks on the other side of town
<i>Limited</i>					
Lakewood Knoll	Genoa	Livingston	Wetlands	none	Lake Chemung
Bates Farms	Scio	Washtenaw	Forest on perimeter	none	Lima Township park, Hudson Mills Metropark
Ford Lake Heights	Ypsilanti	Washtenaw	none	Ford Lake, forests and trails (Ypsilanti Township)	Ypsilanti Township parks, township forest preserve and trails

Table 2. Factors Considered When Buying Current Home by Focus Group Participants

Characteristics:	<u>Types of Open Space Neighborhoods</u>			
	<u>Forested</u> <u>(n=50)</u>	<u>Golf</u> <u>(n=14)</u>	<u>Limited</u> <u>Resource</u> <u>(n=21)</u>	<u>Composite</u> <u>Mean</u> <u>(n=85)</u>
<u>Characteristics rated differently by residents</u>				
Natural features in neighborhood	4.5 ^a	4.0	4.0	4.3
Design of neighborhood	4.4	3.8	3.6	4.1
Natural features of lot	4.1	4.0	3.6	4.0
Lot sizes in neighborhood	4.0	3.3	3.8	3.8
Open space and shared recreation areas in neighborhood	4.0	3.3	3.1	3.7
School district	4.2	3.2	3.0	3.7
<u>Characteristics rated similarly by residents</u>				
Relaxed and comfortable environment	4.4	4.3	4.3	4.4
Location of community	3.9	4.0	4.2	4.1
Rural atmosphere	3.7	3.9	3.8	3.8
Sense of community	3.7	3.8	3.8	3.8
Access to highways and interstate	3.7	3.5	3.7	3.7
Size of houses in neighborhood	3.6	3.2	3.4	3.5
Like-minded people in neighborhood	3.2	3.5	3.3	3.3
Proximity to job	3.3	2.8	3.2	3.2
Proximity to retail	3.2	2.6	2.6	2.9
Proximity to state recreation areas, Metroparks, lakes, and Huron River	2.9	2.4	2.8	2.8

a. Scale where "1" equals not at all important to "5" equals extremely important.

Table 3. Purchase of Recreation Entry Passes

	<u>Livingston (n=50)</u>	<u>Washtenaw (n=35)</u>
Michigan State Parks annual pass	18%	9%
Huron Clinton Metroparks annual pass	18	19
Both annual passes	10	22
No annual passes purchased	54	50
Total	100.0%	100.0%

Table 4. Usage of Selected Livingston County Parks by Livingston County Focus Group Participants (n=50)

Selected Livingston County Parks	Never	Few times a year	Once a month	Couple times a month	Weekly
Huron Meadows Metropark (Brighton)	54%	29	6	6	4
Kensington Metropark (Brighton/Milford)	28	52	6	10	4
Brighton Recreation Area (Brighton/Howell)	49	37	6	6	2
Island Lake Recreation Area (Brighton/South Lyon)	67	22	2	8	0

Table 5. Satisfaction with Factors Considered At Purchase Time by Focus Group Participants

<u>Characteristics:</u>	<u>Types of Open Space Neighborhoods</u>			
	<u>Forested</u> <u>(n=50)</u>	<u>Golf</u> <u>(n=14)</u>	<u>Limited</u> <u>Resource</u> <u>(n=21)</u>	<u>Composite</u> <u>Mean</u> <u>(n=85)</u>
<u>Characteristics rated differently by residents</u>				
Natural features in neighborhood	4.6 ^a	3.2	3.7	4.3
Relaxed and comfortable environment	4.5	4.2	4.0	4.3
Design of neighborhood	4.3	4.0	3.6	4.1
Natural features of lot	4.3	4.1	3.5	4.1
Sense of community	4.3	3.8	3.8	4.1
Lot sizes in neighborhood	4.2	3.9	3.8	4.1
Open space and shared recreation areas in neighborhood	4.3	3.9	3.1	3.9
<u>Characteristics rated similarly by residents</u>				
Proximity to state recreation areas, Metroparks, lakes, and Huron River	4.2	3.9	4.1	4.1
Rural atmosphere	3.9	3.9	3.4	3.8

a. Scale where "1" equals extremely dissatisfied and "5" equals extremely satisfied.

Conclusions and Implications

Our results show evidence that recreation and natural resources beyond a yard, but still within a subdivision, are important to home buyers. Moreover, high levels of satisfaction results from being surrounded by a natural environment. While our results were gleaned from adults, many references were made about children's lives being enhanced by nature and outdoor recreation activities. The households studied appear to have a stronger desire for natural environments and recreation opportunities in their neighborhoods rather than at nearby local, regional, or state parks or natural areas.

The idea of a subdivision built within or nearby major metropolitan areas is not new. What appeared to be different about the subdivisions we studied were that they all incorporated some form of open space. With the exception of one subdivision in the limited open space category, which happened to be the oldest one we studied, some type of resource (mostly forested land) was jointly shared amongst the residents. This shared resource, in most cases, created a wide variety of recreation opportunities within a neighborhood which the resident's felt brought satisfaction and benefits. These open space areas and recreation facilities that developers created during the building process also required care and maintenance by the residents.

In conclusion, five themes evolved from our research on natural recreation areas in subdivisions. The first theme is the "cocooning effect." For the residents we studied, they appear to be looking for an inclusive environment, including natural beauty, resources, and recreation. A second theme is "limited access." Of the subdivisions we studied few had proximity or access to other neighborhoods or community amenities such as schools, other trails, or nearby parks. Residents also showed concern for outsiders using their private open space land and recreation areas. A third theme, "involvement", described that these nature-based subdivisions appear to attract and encourage individuals to participate in conservation efforts who might otherwise not be involved. The fourth theme is "caring and stewardship." The shared resources require some level of caring which ranges from paying low association fees and performing volunteer work to paying high fees and hiring outside landscaping services. The last theme of our research findings is "assistance." While we found stewardship efforts in each of the subdivisions, there is a need to help these residents understand the resources in their neighborhood and how to best sustain them, possibly through County Extension agents, or a city or county forester or recreation maintenance specialist.

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