RESEARCH REPORT



Michigan Agricultural **Experiment Station** Michigan State University

Perspectives on Land Use:

A STATEWIDE Survey of Land Use Decision Makers in Michigan



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Abstract

To learn about local officials' perspectives on land use and community growth, Michigan State University Extension's Victor Institute for Responsible Land Development and Use, along with the Extension State and Local Government Area of Expertise Team and the Michigan Agricultural Experiment Station, conducted an opinion survey of county commissioners, county planning and zoning officials, and township supervisors and personnel to assess their level of concern about land use issues and their knowledge and understanding of available planning and regulatory tools.

Four hundred and sixty-three land use decision makers from all Michigan counties returned completed surveys. A majority of the respondents agreed with the statement that there had been significant growth pressure in their communities during the past five years and that growth pressure would increase significantly in the next five years.

Respondents expected junk and nuisances, lack of job opportunities, groundwater quality and loss of farmland to be major concerns in their communities in the future. Poor public understanding of land use issues and a lack of public support for land use decisions were identified as major barriers to meeting land use challenges.

Respondents indicated that the Michigan Townships Association and newspapers are two major sources of information on land use planning. Most of the respondents indicated that they had received land use training. Officials from the West Central and Southeast regions of Michigan attended more trainings than those in other regions.

Introduction

Michigan's landscape has evolved through a series of substantial land use transformations. More than 10,000 years ago, glaciers worked their way across the state, carving out the magnificent Great Lakes and rolling terrain. During the 1800s, the logging of pines and hardwoods to build new towns and railroads left virtually no virgin timber standing. Blizzards, forest fires and floods have changed the landscape of Michigan and challenged its people (Genschaw, Suvedi and Bartholomew, 2001). Yet through it all, the 37 million acres of land that make up the state have consistently provided its inhabitants with food, water, shelter and fuel (Michigan in Brief, 2002).

Surrounded by one-fifth of the world's surface fresh water, Michigan bears special responsibilities to its abundant resources. Michigan's forests, beaches, streams and lakes have intrigued, soothed and inspired Michigan residents for generations. Michigan was one of the first states in the country to complete a "relative risk analysis," which identified problems and set environmental priorities for the future. "Lack of land use planning that recognizes the integrity of ecosystems" was in the top list of those priority issues. Four industries in Michigan are absolutely dependent on the land: agriculture, tourism, forestry and mining (Batie, Norgaard and Wyckoff, 1996).

Michigan is rapidly losing open space and farmland to strip malls and subdivisions. Between 1982 and 1992, more than 850,000 acres of farmland were lost, and half of the wetlands have already been destroyed (Land Use in the Great Lakes Region, 2002). The report also indicated that these losses pose special problems for hydrological processes and water quality because of the natural storage and cleansing functions of wetlands.

High land use development trends threaten Michigan's natural resource base, which is important for the economic well-being of the state. Along with tourist dollars, land-based enterprises important to Michigan's economy such as farming, forestry and mineral extraction are also at risk. As land values continue to increase in Michigan, growth pressures work their way into rural areas.

Formerly large, open areas of land have become home to low-density land use structures such as shopping centers and single-family households. Towns and cities no longer hold the appeal that they did in the past as places to live and raise a family. This "sprawl" into areas beyond the outer boundaries of towns and cities threatens natural resource-based industries, wildlife corridors, rural character and quality of life.

If current trends of land consumption in the state continue, 1.5 million to 2 million more acres of land will be occupied by development by 2020. This is as much land as that which served 9.2 million people in 1978 (Genschaw, Suvedi and Bartholomew, 2001). The stark difference is that this increase in land consumption will serve only 1.1 million more people (Wyckoff, 2000). The Michigan Society of Planning Officials projects a 63 to 87 percent increase in urbanized land between 1990 and 2020, even though the population may increase by only 12 percent during that period (Great Lakes Commission, 2002).

Land development patterns are also influenced by job growth. It is the primary reason that more than 75 percent of the state's population is concentrated in only 10 counties.

Land Use Decision Making in Michigan

Myriads of land use decisions are made in Michigan at the state, regional, county and local levels. Local governments can change course on many policy matters to adjust to changing circumstances, but land use decisions made today will leave a profound, lasting impact for many years to come. Managing land use in a way that meets present needs without compromising future generations is critical.

Michigan counties, cities, townships and villages have the authority to regulate the use of land within their borders with little state intervention. This means that more than 1,800 units of government potentially have the power to exercise independent land use decision-making authority. Many land use changes are long-lasting; others are temporary. Some changes have an immediate impact; others have long-term impact. Over time, these decisions result in a land use pattern that can either enhance or detract from the quality of life in counties, regions or the state as a whole (Michigan Society of Planning Officials, 1995).

Two early laws of Congress set the stage for settlement in Michigan. The Land Ordinance of 1785 established how land was divided, sold and recorded; the Northwest Ordinance of 1787 established how new lands were to be governed prior to statehood. Both laws have had enduring impacts on Michigan's settlement and government. The State Planning Commission (from 1933 to 1947) also played a central role in comprehensive inventories of state resources, infrastructure planning and development, state legislation related to planning and zoning, and the provision of technical assistance on planning and zoning to regions, counties and local governments. The first land office was established in Detroit in 1804. The boom in land purchase, known as "Michigan Fever", hit in 1830 and lasted about a decade. It peaked in 1836, when the

sales of approximately one-ninth of Michigan's total land area brought in more than one-fifth of the total receipts for the entire country (Michigan Society of Planning Officials, 1995).

Numerous public and private studies have identified land use as a potential major concern to the future of the state's environment. Four industries in Michigan require large land areas: agriculture, tourism and recreation, forestry and mining. Of the 37 million acres of dry land area in Michigan, more than half (19 million acres) are still covered by forest. Even though only 20 percent of this vast forest is managed by the Forest Management Division of the Michigan Department of Natural Resources (MDNR), it is the largest state forest system in the country. Michigan is also among the most diverse mineral-producing states in the nation – 21 minerals are mined here (Michigan in Brief, 2002).

The structure for land use decision making in Michigan entails 10 groups of major players: landowners; local governments; state agencies; the legislature; the governor; local, state and federal courts; federal government; Indian tribes; special agencies, districts and authorities; and special interest groups. Many land use decisions are made by individual landowners. These private land use decisions can have serious impacts on adjoining lands and public resources, and there is a legitimate role for government in land use decision making. The current land use pattern is not an accident of history but a product of conscious human choices. There are private choices about which home or land to buy and where to locate a business, and there are public choices about where to locate schools, roads and new infrastructure. Human beings created the pattern of land use, and they, acting together, can change it.

Michigan State University Extension and Land Use

Michigan State University Extension, known for its educational outreach statewide, has recognized a need to provide education and technical expertise on land use matters. For MSUE to deliver relevant programs, it is important to assess local decision makers' level of interest in and understanding of the issues. MSUE's Victor Institute for Responsible Land Development and Use and the MSUE State and Local Government Area of Expertise Team undertook this task as part of their work to equip local decision makers with the knowledge and skills they need to perform their duties effectively.

Extension's area of expertise (AoE) teams consist of working groups of university specialists and field agents designed to tailor educational programs to the needs of Michigan's citizens. Two examples are the Land Use and the State and Local Government AoE teams. Both emphasize awareness of public issues, promote the exploration of alternatives and assist in analyzing the consequences of various public policy choices. Their mission is to deliver public policy education programming focusing on both content and process, enabling local officials to make better informed decisions.

Purpose of the Study

The Victor Institute and the State and Local Government AoE Team sought answers to the following questions:

- Who are the individuals making land use decisions (demographics)?
- What types of growth pressures do communities face (context of decision making)?
- How do communities respond to growth (current action)?
- Are decision makers aware of tools available to respond to growth (needs assessment)?

- What organizations do decision makers look to for information and training on land use issues (resources)?
- What types of land use programming would they like to receive from Extension (knowledge to action)?

Methodology

A 20-question survey was developed to assess decision makers' perceptions of growth pressures, development trends and land use resources (Appendix A). The survey also identified the types of programming needed to educate land use decision makers about land use planning. The population of this study consisted of county commissioners, county planning and zoning officials, and township supervisors and personnel involved in land use decision making.

Data Collection

A survey was sent to the county commission chairpersons of Michigan's 83 counties and chairpersons of 58 planning commissions (not all counties have planning commissions). The names used to address the survey were obtained by phone calls to each county to obtain the names of the chairpersons. Half of the township offices in each county also received surveys, directed to the mailing address listed in the Michigan Townships Association 2001 Directory. The townships surveyed were selected randomly county by county.

The study followed a mail survey method developed by Salant and Dillman (1996) for data collection. Each sampled population received up to three mailings. The first mailing included a survey and a postage-paid return envelope. The second mailing, sent two weeks later, was a thank-you note for participating or a gentle reminder to complete and return the survey. A third and final mailing of an additional copy of the survey and a postage-paid return envelope was sent to those who had not yet returned the questionnaire. By June 1, 2002, 463 surveys out

of the 781 sent had been returned. The overall response rate was 59.2 percent. The response rates of townships, county commissions, and county planning and zoning commissions were 62.5 percent, 42 percent and 68.9 percent, respectively.

Data Analysis

Survey data were entered into the Statistical Package for the Social Sciences (SPSS/PC+) computer software program. Data were analyzed

using descriptive statistics such as frequency counts, percentages, means and standard deviations. Cross-tabulations, graphs and charts were developed to assist in data comparison and analysis. Correlations, chi-square and cross tabs were used to find associations between selected variables. One-way analysis of variance (ANOVA) and t-test were used to determine differences between groups on selected variables.

Findings

Profile of Respondents

A total of 463 respondents completed and returned the survey. Respondents were from all of Michigan's 83 counties. Figure 1 shows the distribution of respondents by county.

Respondents were represented fairly similarly in all MSU Extension regions (Figure 2). The highest responses were from the West Central and North regions (one-fifth each).

Figure 1. Distribution of respondents by county (n=463).

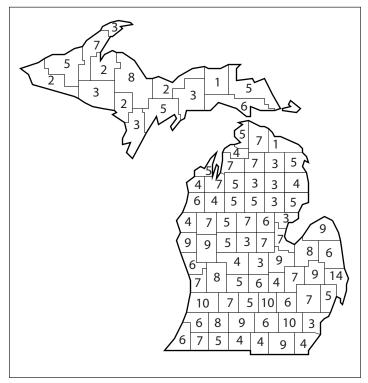
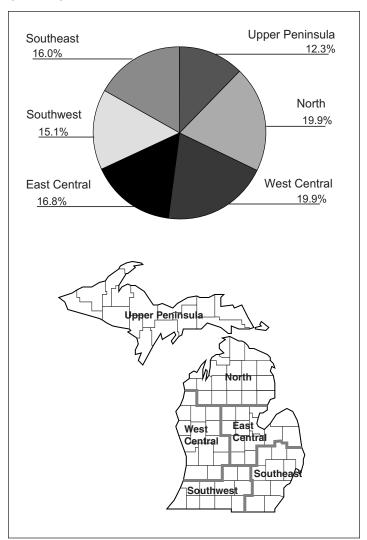
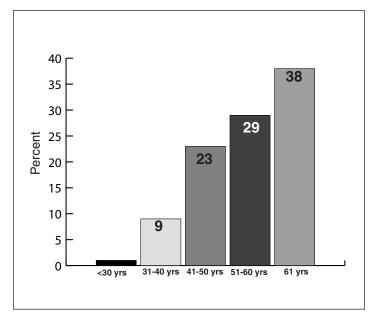


Figure 2. MSUE regional distribution of respondents (n = 463).



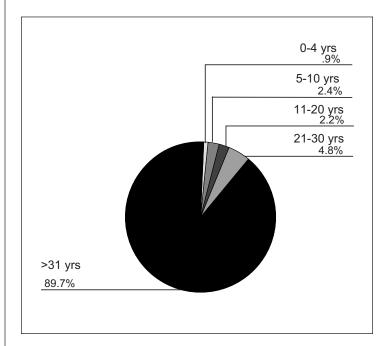
Respondents belonged to various age groups (Figure 3). Nine out of 10 respondents (89.8 percent) provided their age for the survey as requested. The ages of respondents ranged from 22 to 92 years, with an average of 56 years. The largest age group (38.4 percent) consisted of respondents 61 or older; less than 1 percent were 30 or younger.

Figure 3. Age groups of respondents.



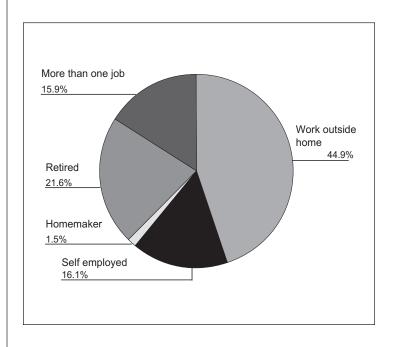
When asked how long the respondents had lived in Michigan, the vast majority (89.7 percent) indicated that they had been residents of Michigan for more than 31 years (Figure 4). Only a few (0.9 percent) indicated living in Michigan for 4 years or less.

Figure 4. Number of years lived in Michigan.



Respondents were asked to indicate their employment status. Almost half (44.9 percent) indicated employment outside the home, and about one-fifth (21.6 percent) were retired (Figure 5). About one in six (16.1 percent) was self-employed or worked in more than one job (15.9 percent).

Figure 5. Employment status.



Land Ownership

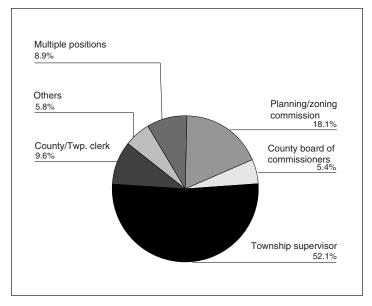
Respondents were asked to indicate if they farmed or owned farmland or open space. More than half (52.3 percent) farmed or owned farmland or open space (Table 1). When asked whether they had a financial interest in the development or construction industries, nearly all (92 percent) indicated that they had no such interest. Almost three-fourths (74.4 percent) indicated that their properties did not abut a body of water.

Table 1. Land ownership of respondents.

Ctatus		Percent			
Status	Frequency	Yes	No		
Farm, own farmland or open space	453	52.3	47.7		
Financial interest in development or construction industries	449	8.0	92.0		
Property abuts a body of water	446	25.6	74.4		

Respondents were asked what position they held in the county or township. The majority (52.1 percent) indicated that they were serving as township supervisors. County boards of commissioners and county planning and zoning bodies were other units of government represented. Some held other positions such as county or township clerk or held multiple positions (Figure 6).

Figure 6. Positions of respondents.



Perceptions about Growth and Development

Respondents were asked to select one statement from a list of five that best described their feelings about growth in their communities:

- I would like to see growth encouraged.
- I would prefer to let growth take its own course in this area.
- I would prefer planned and controlled growth in this area.
- I would prefer limited, planned growth in this area.
- I would like to see a goal of no growth in this

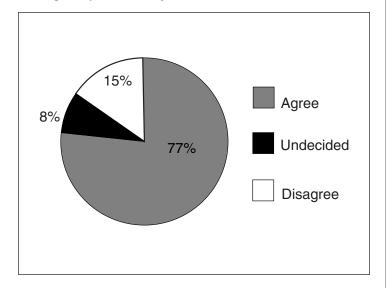
Of the 463 respondents who replied to this question, 54 percent were in favor of "planned and controlled growth." Nearly one-fourth (24.2 percent) would prefer "limited, planned growth" in their area (Table 2).

Table 2. Perceptions about growth in respondents' communities.

Statement	Frequency	Percent
I would prefer planned and controlled growth in this area.	248	54.0
I would prefer limited, planned growth in this area.	111	24.2
I would like to see growth encouraged.	. 45	9.8
I would prefer to let growth take its own course in this area.	44	9.6
I would like to see a goal of no growth in this area.	11	2.4

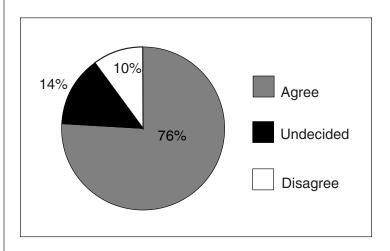
Respondents were asked how strongly they agreed or disagreed with the statement that there had been significant growth pressure in their county during the previous five years. Seventy-seven percent of the respondents agreed or strongly agreed, 8 percent were undecided and 15 percent disagreed with this statement (Figure 7).

Figure 7. Significant growth pressure in the county during the previous 5 years.



Respondents were asked if they expected growth pressure to increase significantly in their county in the next five years. Seventy-six percent of respondents indicated that growth pressure would increase significantly. Only 10 percent disagreed that growth pressure would increase (Figure 8).

Figure 8. Significant increase in growth pressure in the next 5 years.



Identification of Community Consensus on Land Resources and Policy

To assess the types of problems that Michigan land use decision-making officials anticipated they would face in the future, respondents were provided with a list of 28 potential issues/problems organized under six broad categories: water resources, image, transportation, economic issues, housing and growth. Respondents were asked to indicate whether an issue would be a problem, whether they were undecided or if they did not know if it would be a problem. The 10 most often-cited future land use problems are in Table 3.

Table 3. Top 10 future problems in Michigan communities.

Problem	Frequency	Percent
1. Image – Junk and nuisances	449	67.0
2. Economic – Lack of job opportunities	452	61.3
3. Growth – Loss of farmland	448	53.3
4. Water resources – Groundwater quality	445	51.0
5. Water resources – Surface water quality	442	43.9
6. Image – Deteriorating roadside image	441	43.8
7. Growth – Loss of open spaces for other uses	442	43.0
8. Water resources – Overdevelopment of lakeshores	433	42.0
9. Growth – Beginning of suburban sprawl	440	41.4
10. Growth – Loss of forestland	449	41.2

Note: Frequency = number of people who responded to the question. Percent = respondents who indicated the issue would be a problem in the future.

Two-thirds of respondents (67 percent) indicated that junk and nuisances would be a major concern for their communities in the future. A crosstabulation was made to see if respondents with interest in the development industry responded

differently on this issue. Those who stated that junk and nuisances would be a problem also indicated that they did not have any financial interest in development industries. Three out of five (61.3 percent) expressed that lack of job opportunities would be a problem. Over half (53.3 percent) indicated that groundwater quality and loss of farmland would be issues of concern.

Community Involvement in Land Use Planning

The survey assessed the opinions of respondents on the importance of community involvement in protecting natural resources from fragmentation and development. Respondents were asked to indicate the level of importance of community involvement in a series of eight planning and zoning issues: groundwater resources, lake and stream water quality, rural character, farmlands, wildlife and wetlands habitat, forestlands, scenic views and shoreline properties.

Ninety-five percent of respondents indicated that it is important or very important to involve the community in protecting groundwater resources (Table 4). Similarly, over three-fourths said it is important to involve the community in

Table 4. Importance of community involvement in protecting natural resources from fragmentation and development.

		Percent					Mean
Natural resource	N	VI	I	N	U	VU	(SD)
Groundwater resources	451	66.5	29.0	1.1	3.1	0.2	4.59 (0.69)
Lake and stream water quality	449	65.0	30.3	2.0	2.7	0.0	4.58 (0.66)
Rural character (open space)	445	54.4	39.1	2.9	3.1	0.4	4.44 (0.74)
Farmlands	447	49.7	37.4	3.1	9.4	0.4	4.26 (0.93)
Wildlife and wetlands habitat	447	46.3	41.8	3.8	7.2	0.9	4.26 (0.89)
Forestlands	443	43.8	44.5	4.3	7.2	0.2	4.24 (0.85)
Scenic views	438	43.4	42.5	5.5	8.4	0.2	4.20 (0.89)
Shoreline properties	438	39.3	37.7	11.2	10.7	1.1	4.03 (1.01)

Note: VI = Very Important, I = Important, N = Neutral, U = Unimportant, VU = Very Unimportant

protecting lake and stream water quality, rural character of the community, farmlands, wildlife and wetland habitat, forestlands, scenic views and shoreline properties.

A low but significant association existed between the perceived importance of involving community members and the number of years respondents had lived in Michigan. Respondents who had lived in Michigan longer tended to perceive less need for community involvement in protecting these resources from fragmentation and development.

The survey assessed the extent to which respondents were willing to consider developing new

policies, regulations and incentives for protecting natural resources. A series of statements pertaining to land use issues was included. Table 5 shows the 10 policies, regulations and incentives most popular among respondents. Respondents were most willing to consider developing stricter junk/blight ordinances and adopting groundwater protection measures.

Junk and nuisances were also stated as the second most significant problem for the future (Table 3). Regardless of position (township or county land use decision-making official), respondents tended to perceive a strong need to develop new policies, regulations and incentives.

la a a a tha a	NI.			Percent			Mean
Incentive	N	SA	Α	UD	D	SD	(SD)
Strengthen junk/blight ordinances	455	64.6	27.9	3.1	4.2	0.2	4.93 (.76)
Adopt groundwater protection measures	448	45.8	44.9	4.7	4.2	0.4	4.31 (.78)
Require new development to "blend in" with surrounding landscape	450	40.2	47.8	3.8	7.1	1.1	4.19 (.88)
Protect scenic views	443	39.3	48.5	6.1	5.6	0.5	4.21 (.82)
Storm water drainage control measures	440	33.6	51.4	8.4	5.7	0.9	4.11 (.84)
Concentrate development to preserve open space and rural character	445	44.0	39.8	6.5	8.5	1.1	4.17 (.96)
Preserve scenic rural roads	446	34.5	47.3	6.1	11.4	0.7	4.04 (.96)
Protect farmland and forestland from development	446	41.3	39.2	8.3	9.6	1.6	4.09 (1.0)
Public access sites for lakes and rivers	439	30.3	47.8	10.9	9.6	1.4	3.96 (.95)
Require open space for new development	437	30.7	43.5	9.6	14.2	2.1	3.86 (1.1)

Educational Needs and Strategies for Programming

The survey assessed the types of barriers recognized by decision makers when addressing land use challenges. Respondents were asked what they believed were barriers, if any, to meeting land use challenges in their communities. A list of eight possible barriers was provided, along with a space for an open-ended response. The most frequently mentioned barrier was "poor public understanding of land use issues" followed by "poor public support for difficult land use decisions." Lack of adequate enforcement of regulations, pressure from developers, and lack of planning and zoning coordination with adjoining counties, villages and townships were other frequently mentioned barriers (Table 6).

Table 6. Barriers to meeting land use challenges.

Barrier	Frequency	Percent
Poor public understanding of land use issues	306	66.1
2. Poor public support for difficult land use decisions	227	49.0
3. Lack of adequate enforcement of regulations	177	38.2
4. Pressure from developers	167	36.1
5. Lack of planning and zoning coordination with adjoining counties, villages and townships	154	33.3
6. Lack of adequate planning	137	29.6
7. Too many state and federal regulations	129	27.9
8. Lack of adequate land use regulations	115	24.8

Frequently mentioned responses to the openended question included lack of planning by the state, lack of public education about land use planning, lack of support from the court on land use regulation, lack of intellectual and financial resources, and natural or geographic barriers to land use planning.

Land Use Planning Resources

The survey assessed the land use planning resources utilized by local officials. Respondents were asked whether they were familiar with a series of 14 land use planning tools and resources using a Likert-type scale, with 1 being not at all familiar and 5 being very familiar. Findings revealed that the majority of respondents were familiar with census information (71 percent), aerial photographs (65 percent), the use of private planning consultants (56 percent) and soil survey information (53 percent). On the other hand, two out of five respondents were "not at all familiar" with the Michigan Resource Inventory System (MIRIS) as a tool for land use planning (Table 7).

Table 7. Familiarity with land use planning resources.

Ресеите	NI NI	Percent					Mean
Resource	N	5	4	3	2	1	(SD)
Census information	452	33.4	37.6	24.1	4.4	0.4	3.99 (0.89)
Aerial photographs	450	30.0	35.3	26.4	7.1	1.1	3.86 (0.96)
Jse of private planning consultants	445	27.9	27.9	29.7	9.4	5.2	3.64 (1.13)
Soil surveys	447	20.8	32.4	35.3	8.7	2.7	3.6 (0.99)
Road traffic data	447	19.5	32.7	33.1	11.6	3.1	3.54 (1.03)
Topographic maps	446	22.9	27.4	34.5	9.6	5.6	3.52 (1.11)
Road condition evaluations	449	15.1	32.1	34.1	13.4	5.3	3.38 (1.06)
Land and water resource agencies	449	13.1	29.0	40.5	12.5	4.9	3.33 (1.01)
Wetland inventory maps	447	15.0	28.4	32.0	18.8	5.8	3.28 (1.10)
GIS	445	16.4	25.8	33.3	17.3	7.2	3.27 (1.14)
Geological and groundwater information	449	10.7	20.0	48.1	13.8	7.3	3.13 (1.02)
Water quality data for lakes and streams	451	10.9	21.1	44.6	16.4	7.1	3.12 (1.04)
Cost of infrastructure analysis	450	9.1	17.8	33.1	26.0	14.0	2.82 (1.15)
Michigan Resource Inventory System	441	7.7	11.1	28.8	29.9	22.4	2.52 (1.17)

Note: Based on a scale of 1 to 5, 1 = Not at all familiar, 3 = Somewhat familiar and 5 = Very familiar.

The survey assessed whether various groups of respondents – township officials, county boards of commissioners and county planning/zoning officials – differ in their familiarity with land use planning resources and tools. One-way analysis of variance (ANOVA) was performed to determine the differences. Findings showed that township officials were less familiar than county officials with the following land use planning resources:

- Geological and groundwater information.
- Water quality data for lakes and streams.

- Land and water resource agencies.
- GIS.
- Soil surveys.
- Aerial photographs.
- Wetland inventory maps.
- MIRIS.
- Topographic maps.
- Road traffic data.
- Census information.
- Cost of infrastructure analysis.

Planning and zoning commission members tended to be more familiar with these resources than members of county boards of commissioners. Township officials had the lowest degree of familiarity with these resources.

Sources of Information and Training on Land Use Planning

The survey assessed how local officials receive information and training on land use planning. A majority (84 percent) responded that they received information through the Michigan Townships Association (Table 8). Newspapers were the next major source of information – four out of five respondents (82.8 percent) indicated

receiving information this way. The majority of respondents identified county planning and zoning magazines, private consultants, books or bulletins, workshops and seminars, county planning department personnel, the Michigan Municipal League, MSU Extension and the Michigan Society of Planning as sources of information.

Three out of five respondents (59.5 percent) indicated access to such information via the Internet. A majority (52.8 percent) would like access to a correspondence course on land use planning.

The survey assessed what issues of land use planning local officials would like to know more

0	N	Percent			
Source	N	Receive now	Would like to receive in future	Both	
Michigan Townships Association	413	84.0	2.9	13.1	
Newspapers	355	82.8	7.9	9.3	
Planning and zoning magazines	403	76.4	12.4	11.2	
Private consultants	283	76.0	17.0	7.1	
Books or bulletins	310	72.3	19.0	8.7	
Workshops and seminars	384	71.4	15.4	13.3	
County planning department personnel	336	71.7	19.0	9.2	
Michigan Municipal League	218	68.8	24.3	6.9	
MSU Extension	363	68.9	21.2	9.9	
Michigan Society of Planning	279	64.2	25.8	10.0	
Internet	215	59.5	52.6	7.9	
Michigan Counties Association	183	55.7	38.3	6.0	
Correspondence courses	159	43.4	52.8	3.8	

about. They were asked to rank a list of 25 issues in order of preference. Table 9 summarizes the top 10 most often-cited educational needs. Land division/parceling, growth management, rural clustering, open space protection, communicating with citizens, the Land Division Act, county master plans, open space zoning, writing an ordinance and planning tools were the most frequently chosen areas of training.

Table 9. Ten most often-cited areas for educational land use programs.

Issue	Frequency
1. Land division/parceling	231
2. Growth management	213
3. Rural clustering	206
4. Open space protection	198
5. Communicating with citizens	185
6. Land Division Act	179
7. County master plans	171
8. Open space zoning	164
9. Writing an ordinance	160
10. Planning tools	158

The survey assessed the number of training sessions that respondents had attended in the previous five years. Local officials received an average of five trainings in that time period (Table 10). Respondents in the West Central and

Table 10. Trainings attended in the previous five years.

Position	N	Minimum	Maximum	Mean	SD
County planning/ zoning commission	33	1	50	6.76	8.66
County commission	28	0	10	4.21	3.13
Township	306	0	60	5.80	6.64
Total	367	0	60	5.76	6.66

Southeast regions received more trainings than those in other regions. At least one out of five officials received more than 10 trainings. The responses also revealed that no officials in the Upper Peninsula region had received more than 11 trainings in the previous five years (Table 11).

The survey also measured the willingness of local land use officials to attend training. Though the majority of respondents between ages 31 and 60 indicated a willingness to attend training (Table 12), more than one-third of the respondents were undecided whether they would attend training. Less than 10 percent indicated no desire for training.

Table 13 shows the regional comparison of respondents' willingness to attend training. Over half of the respondents in all MSUE regions were willing to attend training.

Table 14 shows that county planning and zoning commission officials have a stronger desire to attend trainings than other groups. It was interesting to note that over 30 percent of county commission and township officials were not sure whether they were willing to attend training.

In an open-ended question, respondents were asked for their opinions to assist in further improvements of training opportunities for planning and zoning officials. Some respondents opined that there is a lack of support from county commissioners on land use issues. Others mentioned that poor advice from private legal counsel to the commissioners is a concern. Many respondents thought that training is needed for people involved locally in land use planning and zoning, and they indicated that training should be organized in collaboration with homebuilders. Some commented on the need for land use training to be offered to local officials in the Upper Peninsula.

Table 11. Trainings attended by MSUE region.

Denien			Trainings	Mean	CD	
Region	0	1-5	6-10	11 or more	wean	SD
U.P.	4	30	8	0	3.07	2.86
North	2	41	21	4	5.31	4.70
West Central	0	41	13	15	7.86	8.42
East Central	3	41	12	6	5.52	5.19
Southwest	3	48	6	4	3.89	3.24
Southeast	1	38	17	9	7.75	9.86
Total	13	239	77	38	5.76	6.66

Table 12. Willingness to attend training by age group.

Age group	Willing to attend training (percent)						
	Yes	No	Undecided				
< 30 years	33.3	0	66.7				
31-40 years	67.6	8.1	24.3				
41-50 years	62.4	4.0	33.7				
51-60 years	61.0	6.5	32.5				
> 61 years	53.3	9.1	37.6				

Table 13. Willingness to attend training by region.

Degion	Wil	nt)		
Region	Yes	No Undecided		
U.P.	69.6	5.4	25.0	
North	61.5	5.5	33.0	
West Central	52.4	4.5	42.0	
East Central	51.3	11.8	36.8	
Southwest	62.3	13.0	24.6	
Southeast	55.4	55.4 5.4 3		

Table 14. Willingness to attend training by position.

Position	Willing to attend training (percent)			
Position	Yes No Under		Undecided	
County planning/zoning commission	78.9	2.6	18.4	
County commissioners	60.0	8.6	31.4	
Township officials	56.2	7.9	36.0	

Summary and Conclusion

Michigan State University's Victor Institute for Responsible Land Development and Use conducted an opinion survey of public officials in Michigan's 83 counties to learn more about the issues of land use and community growth. Altogether, 463 land use decision-making officials from all Michigan counties completed and returned the survey. It was important to determine their level of concern and understanding of land use issues and their knowledge of planning tools. This statewide survey of Michigan's land use decision makers helped determine some major issues of concern.

Findings indicate that a majority of these land use decision makers were over 30 years of age and had lived in Michigan for more than 31 years. Many were in favor of "planned and controlled growth" or said that they would prefer "limited, planned growth" in their areas. A majority of the respondents agreed that there had been significant growth pressure in their communities during the previous five years and that growth pressure would increase significantly in the next five years.

More than half of the respondents also indicated that groundwater quality and loss of farmland would be major issues in the future. Poor public understanding of land use and lack of public support for land use decisions were identified as barriers to land use decision making.

The Michigan Townships Association and newspapers were two major sources of information for land use planning. Most of the respondents indicated receiving land use training.

When asked to rank the list of 25 land use planning issues about which they would like to know more, respondents most frequently mentioned land division/parceling, rural clustering, growth management, open space protection, communicating with citizens, open space zoning, writing an ordinance, county master plans and site plan review as desired areas of training.

Land use decision making in Michigan is done almost entirely at the local level, so it is important to determine the issues facing these decision makers so that Michigan State University Extension, the Michigan Agricultural Experiment Station and the Victor Institute can develop research-based educational programming for them. The issues, barriers and educational needs identified in this study will allow the development of educational programs to assist decision makers in addressing land use challenges.

Perspectives on Land Use: A Survey of Land Use Decision Makers in Michigan Appendix A. Survey Instrument

1. Please identify the towr	iship and county	in which you live	·	
2. How long have you live a. () 0-4 years b. () 5-10 years c. () 11-20 years d. () 21-30 years e. () Longer than 3				
3. Please indicate your pos a. County Planning, b. County Board of C c. Township Supervi	Zoning Commissi Commissioners		d write in your numb years years years	er of years served:
(Select only one) a. () I would like t b. () I would prefe c. () I would prefe	to see growth enco er to let growth taker er planned and cor er limited, planned	ouraged. The its own course in the Entrolled growth in thit I growth in this area.	his area.	rowth in your area of Michigan.
5. For the past five years d		-	een:	
5 Extremely well planned and managed	4	cle only one) 3	2	1 Poorly planned and managed
6. There has been signification () strongly agree		re in my county dur () undecided		s. () strongly disagree
7. Growth pressure in my () strongly agree	county will increa	nse significantly in the contract of the contr	ne next five years. () disagree	() strongly disagree
8. The character of my cou () strongly agree	nty has changed f	for the worse due to () undecided	unmanaged developr () disagree	ment. () strongly disagree

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9. Of the following list, which do you feel will be problems facing your community in the future:

9. Of the following list, which do you feel will be pro	obtems facing	your community		D "
	D 11	77 1 11 1	Not a	Don't
A 747 4 79	Problem	Undecided	Problem	Know
A. Water Resources	_			
1. Lack of access to shorelines on inland lakes	P	UD	NP	DK
2. Overdevelopment of lakeshores	P	UD	NP	DK
3. Erosion of shoreline	P	UD	NP	DK
4. Overdevelopment along rivers	P	UD	NP	DK
5. Groundwater quality	P	UD	NP	DK
6. Surface water quality	P	UD	NP	DK
7. Wetlands preservation	P	UD	NP	DK
1				
B. Image				
1. Deteriorating roadside image	P	UD	NP	DK
2. New development not in character with the area		UD	NP	DK
3. Junk and nuisances	P	UD	NP	DK
5. Julik and nuisances	1	OD	111	DK
C. Transportation				
1. Summer traffic congestion	P	UD	NP	DK
2. Year-round traffic congestion	P	UD	NP	DK
3. Convenience store entrances and exits	P	UD	NP	DK
D. Economic				
 Lack of job opportunities 	P	UD	NP	DK
2. Lack of industrial parks	P	UD	NP	DK
3. Economy too seasonal	P	UD	NP	DK
E. Housing	D	LID	NID	DV
1. Residential zoning is too restrictive	P	UD	NP	DK
2. Residential zoning is not restrictive enough	P	UD	NP	DK
3. Lack of affordable low/mod. income housing	Р	UD	NP	DK
F. Growth				
Land use regulations not restrictive enough	Р	UD	NP	DK
	P			
2. Land use regulations too restrictive		UD	NP NB	DK
3. Loss of farmland	P	UD	NP	DK
4. Loss of forestland	P	UD	NP	DK
5. Loss of open spaces for other uses	P	UD	NP	DK
6. Beginning of suburban sprawl	P	UD	NP	DK
7. Beginning of commercial strip development	P	UD	NP	DK
8. Residential growth occurring too rapidly	P	UD	NP	DK
9. Commercial growth occurring too rapidly	P	UD	NP	DK
G. Other	Р	UD	NP	DK

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10. What do you believe are the barrie	rs, if any, to r	neeting land us	se challenges in y	our county/towns	ship?
check all that apply)	1 1				
a. too much state and fede		L			
b. lack of adequate planni					
c. lack of adequate land us					
d. lack of adequate enforce					
e. poor public understand					
f. poor public support for		use decisions			
g. pressure from develope					
h. lack of planning and zo	ning coordina	ition with adjoi	ning counties, villa	ages and townshi	ps
Other					
11. How important is it for the commu	inity to be inv	volved in prote	cting the followin	ig resources from	fragmentation
and development:					
	Very	T	TT	Very	No Opinion/
	Important	Important	Unimportant	Unimportant	Neutral
a. Rural character (open space)	VI	I	U	VU	N
b. Scenic views	VI	I	U	VU	N
c. Farmlands	VI	I	U	VU	N
d. Groundwater resources	VI	I	U	VU	N
e. Lake and stream water quality	VI	I	U	VU	N
f. Forestlands	VI	I	U	VU	N
g. Wildlife and wetland habitat	VI	I	U	VU	N
h. Shoreline properties	VI	I	U	VU	N
12. In order to address the many conce policies, regulations and incentive following statements.					
0	Strongly			Strongly	
	Agree	Agree	Disagree	Disagree	Undecided
A. Community Image	G	O	O	<u> </u>	
1. Require new development					
to "blend in" with surrounding					
landscape	SA	A	D	SD	U
2. Protect scenic views	SA	A	D	SD	U
3. Preserve scenic rural roads	SA	A	D	SD	U
4. Strengthen junk/blight ordinan	ces SA	A	D	SD	U
B. Environmental Protection					
1. Require open space for new					
development	SA	A	D	SD	U
2. Stricter shoreline zoning	<i>U1</i> 1	11	D		C
(setbacks, greenbelts)	SA	A	D	SD	U
3. Storm water drainage control	<i>U1</i> 1	11	D	JD .	O
measures	SA	A	D	SD	U
4. Protection of farm and forestlan		Λ	D	טט	O
	iu				
from development	SA	A	D	SD	U

Perspectives on Land Use: A Survey of Land Use Decision Makers in Michigan Appendix A. Survey Instrument

E. Dublic access sites for labor and	Strongly Agree	Agree	Disa	gree	Strongly Disagree	Undecided
5. Public access sites for lakes and rivers	SA	A	Ι)	SD	U
Adopt groundwater protection measures	SA	A	I)	SD	U
C. Growth Management						
 Concentrate development to preserve open space and rural 						
character	SA	A	Ι)	SD	U
2. Limit extension of utilities3. Limit low density residential and	SA	A	Ι)	SD	U
commercial development	SA	A	Ι)	SD	U
13. How familiar are you with the follow	ving land us	se planning res	ources?			
=== ==================================		Very		Somewha	t	Not at all
a. Geological and groundwater info	ormation	5	4	3	2	1
b. Water quality data for lakes and		5	4	3	2	1

3	Verv	,	Somewhat		Not at all
a. Geological and groundwater information	5 ້	4	3	2	1
b. Water quality data for lakes and streams	5	4	3	2	1
c. Use of private planning consultants	5	4	3	2	1
d. Land and water resource agencies	5	4	3	2	1
e. GIS - Geographic Information Systems	5	4	3	2	1
f. Soil surveys	5	4	3	2	1
g. Aerial photographs	5	4	3	2	1
h. Wetland inventory maps	5	4	3	2	1
i. MIRIS - MI Resource Inventory System	5	4	3	2	1
j. Topographic maps	5	4	3	2	1
k. Census information	5	4	3	2	1
l. Road traffic data	5	4	3	2	1
m. Road condition evaluation	5	4	3	2	1
n. Cost of infrastructure analysis	5	4	3	2	1

14. Please indicate how you currently receive information and training related to land use planning and zoning, and if you would like to receive that information and training in the future.

a.	Newspapers	receive now	would like in future
b.	Planning and zoning magazines/newsletters	receive now	would like in future
c.	County planning department staff	receive now	would like in future
d.	MSU Extension	receive now	would like in future
e.	Workshops and seminars	receive now	would like in future
f.	Private consultants	receive now	would like in future
g.	Books or bulletins	receive now	would like in future
h.	Correspondence courses	receive now	would like in future
i.	Michigan Townships Association	receive now	would like in future
j.	Michigan Society of Planning	receive now	would like in future
k.	Michigan Municipal League	receive now	would like in future
1.	Michigan Counties Association	receive now	would like in future
m.	Internet (web sites)	receive now	would like in future
n.	Other	receive now	would like in future

Perspectives on Land Use: A Survey of Land Use Decision Makers in Michigan Appendix A. Survey Instrument

15. With respect to land use planning, what would	d you like to know more about? Check as many as you like.
 a. () County master plans b. () Buffering/greenbelts c. () Shoreline protection d. () Open space protection e. () Land division/parceling f. () Access to lakes/streams g. () Utilities h. () Landscape design elements i. () Building aesthetics j. () Planning tools k. () Lobbying state legislators l. () Communicating with citizens 	m. () Growth management n. () Soil erosion and sediment o. () Shoreline setback p. () Storm water management q. () Site plan review r. () Land Division Act s. () Open space zoning t. () Rural clustering u. () Transfer of development rights v. () Minimum lot size w. () Writing an ordinance x. () Water resource protection y. () Other
16. Approximately how many land use training se past five years?	essions have you attended in the
17. Would you be willing to participate in land an	nd/or water resource training if it becomes available to you?
() yes () no () undecided	
18. Please describe your present status. (Check or	ne for each answer)
Yes No b. Do you	farm or own farmland or open space? have a financial interest in development or construction industries? our property abut a body of water?
19. Are you:	
 a. () Employed outside the home b. () Self-employed c. () Homemaker d. () Unemployed e. () Retired 	
20. What is your age?	

Perspectives on Land Use: A Survey of Land Use Decision Makers in Michigan Appendix A. Survey Instrument

Please use the space below (or attach additional pages) to share any other thoughts you may have to assist in further improving training opportunities for planning and zoning officials.

Thank you for your help.

Please return your completed questionnaire in the enclosed envelope to:

Victor Institute for Responsible Land Development and Use Michigan State University Room 11 Agriculture Hall East Lansing, MI 48824

Perspectives on Land Use: A Survey of Land Use Decision Makers in Michigan Appendix B. Bibliography

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