

# Consuming Land, Losing Character

How Large Lot Residential Zoning is Reshaping  
Michigan's Agricultural Communities



**A project of the Michigan Environmental Council**  
In partnership with the Michigan Association of REALTORS®

Funding by People And Land  
a project of the W.K. Kellogg Foundation  
August 2004



## Table Of Contents

I. Executive Summary.....	3
Problem.....	3
Project Objectives and Outcomes.....	3
Four Primary Findings.....	5
Five Key Recommendations.....	6
II. Analysis and Research Methodology.....	10
A. What are homebuyers looking for?.....	11
B. Why are township officials using large lot zoning?.....	14
Research.....	14
Findings.....	16
1. Mixed understanding of suburban sprawl.....	16
2. Large lots and limited services deter sprawling development...17	17
Large Lot Zoning.....	17
Lack of Infrastructure.....	18
3. Resist higher density projects and builders.....	20
C. What factors are influencing the home building industry?.....	21
III. Conclusions.....	25
IV. Policy Recommendations.....	27
V. Appendices.....	31
A. Definitions, Examples and Tools for Talking About Density.....	31
Definitions.....	31
Tools for Talking About Density.....	32
1. Five characteristics of good higher-density development.....	32
2. Five specific types of compact development.....	32
3. Ten reasons density is a good idea.....	33
B. Homebuyer Preferences.....	34
Focus Group Composition.....	34
Descriptions for Focus Groups.....	35
C. Township Sample.....	36
Methodology for Choosing 80 Townships.....	36
Questions Administered to Officials.....	38
Characteristics and Lot Sizes.....	40
Approach to Farmland Protection.....	42
Perceptions of Lot Size Impacts.....	44
Perceptions of Urban Sprawl.....	46
D: Homebuilder Sample.....	48
Questions.....	48
Results.....	50

# I. Executive Summary

## Problem

“Large-lot zoning does nothing to preserve open space. It just uses a lot of land.”<sup>1</sup>

-- Stuart Meck, *American Planning Association*

The rapid and often unanticipated proliferation of new houses, big-box retail stores and strip malls continues to challenge the resources and character of many of Michigan’s traditionally rural communities. For example, the sprawling, outward migration of people around Bay City, Michigan, converted land to non-farm uses at a rate that exceeded population growth 27 times over between the years 1960 and 1990.<sup>2</sup> Michigan needs to take stock of this situation and begin to better plan ahead if it hopes to secure its valuable agricultural resources and ensure that costly public resources are invested in the best way possible.

Unfortunately, many of Michigan’s rural areas appear to be accelerating the rate at which landscapes are transformed by relying on large minimum lot sizes in their zoning requirements. The new homes advertised along the bustling interstates at the fringes of our cities and villages are often required to be built on large one, three or five-acre parcels of land.

“We’re turning the agricultural land into a quasi-rural setting with farmland parcels broken up and mixed with non-farm related residential housing,” says Jim Fuerstenau, Executive Director of the Michigan Farmland and Community Alliance.<sup>3</sup> The use of large residential lots in rural areas is hastening the rate at which a sprawling pattern of residential development fragments the rich land base that once supported a robust and diverse agricultural economy.

## Project Objectives and Outcomes

The Michigan Environmental Council partnered with the Michigan Association of REALTORS® to conduct an examination of the people and policies driving the large-lot, low-density residential development (urban sprawl) in some of Michigan’s fastest growing rural townships. Farmland loss has long been associated with sprawling residential development, and our goal was to clarify the role that minimum lot sizes (large-lot zoning) play in the high rate of farmland loss in the state, and the degree to

---

<sup>1</sup> “Zoning not a Savior.” Alan D. Miller, Mary Mogan Edwards and Joe Blundo. *The Columbus Dispatch*. Sept. 10, 1996. <http://www.dispatch.com/news/special/priceofprogress/progress2.html>

<sup>2</sup> *Michigan Land Resources Project*. Public Sector Consultants, Inc. Lansing, MI. Nov. 2001. <http://www.pscinc.com/Documents/lbilu/fullreport.pdf>

<sup>3</sup> Farmland and Community Alliance Press Release, Feb. 2004.

which these large residential lots are satisfying the desires of homebuyers, builders and local planning officials.

Research samples and interviews collected during the course of our analysis indicate that large minimum lot sizes are probably used extensively in the state's fastest developing rural areas, but are not effective in protecting rural character or protecting agricultural viability. In townships actively encouraging residential and commercial development, and in those struggling to preserve the last parcels of viable farmland, large minimum lot sizes serve to further fragment farmland and, in many cases, increase the amount of unplanned development while simultaneously spreading it out over a larger area.

Based on our study, a commonly held belief is that low-density housing is the only option that will satisfy homebuyer desires, while higher density, more compact options will not.<sup>4</sup> Specifically, some first time homebuyers assume that a single-family home on a large lot is the only option available to meet their needs in terms of safety and privacy. Similarly, home builders often choose to construct larger homes on large lots because they assume that these types of houses are the easiest to sell and are often more profitable.

Local planners utilize large lots for a variety of diverse and sometimes contradictory reasons. It appears that many of the rural townships that are facing intense development pressure lack the sewer and water infrastructure to direct development into more efficient, higher density developments. Without planning tools and resources to provide high-quality residential choices in cities and villages with existing infrastructure, rural townships instead choose to spread the influx of new residents over a wider geographic area through the use of large residential lots on septic systems.

Overall, the current system in Michigan fails to account for a strong interest among homebuyers for choice among a range of housing options in both urban and pastoral settings. Our research suggests that when buyers are provided an accurate description of the characteristics of both large lot developments and compact, convenient housing choices, both are popular.

The results of this study should be of interest to local planning and zoning officials, as well as state policy makers. These findings will hopefully prove useful in translating homebuyer values into a more effective and protective planning and zoning process.

---

<sup>4</sup> See Appendix A for definitions and tools for discussing density.

*Overall, the current system in Michigan fails to account for a strong interest among homebuyers for choice among a range of housing options in both urban and pastoral settings.*

## Four Primary Findings

### *1. Large minimum lot sizes do not protect rural character or direct residential growth.*

While the large lot sizes may spread new development across larger geographic area, they fail to provide local planning officials the tools to achieve other desired outcomes, such as utilizing existing or planned infrastructure and fire and police resources, or achieving compact designs that preserve natural features.

Rural townships, even those with planning provisions that allow for more clustered planned unit developments (PUDs) to protect open space, often still accommodate new growth by providing large swaths of homogeneously zoned large lot, quasi-agricultural districts. As development occurs, this approach fragments the farmland and exacerbates the problem of providing services to a now-widely scattered population.

One of the most disturbing findings uncovered during the course of our study was the prevalence of hybrid Agricultural/Residential (A/R) zoning districts in many of Michigan's most vulnerable agricultural areas. The majority of townships using this zoning district intended it to spread non-agricultural residences across a wider geographic area, thus presumably preserving rural character and protecting water and environmental features. But based on surveys, census data and farmland loss statistics, this type of large lot zoning seems to promote the destruction of rural character by driving out the very farmers who provide the community its agricultural base.

### *2. Township officials have conflicting expectations of minimum lot size zoning.*

A sample of township planning officials in fast-growing areas of the state reveals a wide range of intentions and desired outcomes for large minimum lot sizes. The majority indicated that a primary goal of their local zoning ordinances was to preserve rural character or protect agriculture. Other planners were simultaneously using large lot zoning to promote residential growth. Our analysis revealed that similar patterns of residential growth occurred across the spectrum of localities using large lot zoning, regardless of intentions.

## *Township Zoning Officials Respond:*

### ***Is suburban sprawl good or bad for a rural community?***

*“Suburban sprawl means improved tax base; it means the community can provide more amenities.”*

*–Township zoning administrator*

*“It’s bad because it can destroy rural character of community and destroy infrastructure.”*

*–Township zoning administrator*

*“Suburban sprawl is both good and bad. It’s good for privacy, quality of life and it looks better. But it’s bad because it uses up good farmland. A house is a one-time crop.”*

*–Township zoning administrator*

**Potential  
Homebuyers  
Respond:**

**Why is  
neighborhood  
more important  
than lot size?**

*“If you’ve got a good neighborhood, you don’t have to worry about the size of your lot because your kids can play wherever in the neighborhood.”*

*– Man, Grand Rapids area*

*“Because these are the places and the things that your kids are going to be around. You want your children to be able to have kids to play with. You can change the physical structure of your house; you can’t really change your neighborhood, what’s around you.”*

*– Woman, Detroit area*

By zoning for large lots, rather than actually planning and taking regional infrastructure and population changes into account, township officials are encouraging the rapid changes they are often attempting to abate. Rather than being intentional in their attempts to encourage residential growth, protect agriculture or promote economic investment, too many local planning officials are relying on the “one-size fits all” approach of large lot zoning to meet all these diverse needs.

**3. Community character is more important than lot size for many homebuyers.**

Our findings suggest that many homebuyers will choose higher density developments if they understand that security, aesthetics and a high quality of life will be ensured.

While preferences for large lot vs. more compact development differed across groups of potential first-time homebuyers surveyed in the Detroit and Grand Rapids metropolitan areas, nearly every participant said that the neighborhood setting is more important to them than lot size. Focus group participants in our study expressed this sentiment unanimously, saying that living in a comfortable, safe, convenient and friendly community is a primary home buying preference—more so than simply the size of the home or property.

Homebuyer decisions appear to be based on a set of core values that can be met in a variety of housing styles and sizes. When an accurate and full description of all factors involved in the home was provided (housing style and neighborhood characteristics, safety and knowing one’s neighbors), these considerations proved more important than lot size.

**4. Buyers and builders would like more options in housing type and density.**

Despite the prevalence of single-family homes on large lots in the geographic areas surveyed, both potential first-time homebuyers and homebuilding professionals indicated that they would prefer to see a wider diversity of choices in the size and density of homes available. Many participants in the focus groups in the Detroit and Grand Rapids areas rated the choice of housing options (size as well as type) highly. Potential homebuyers like the idea of having communities with a mix of smaller and larger houses and townhouses. It gives them more choices.

Many participants express the belief that an area with a variety of housing choices would also have a greater sense of community and neighborhood atmosphere than a more sprawling community. Specific characteristics of higher-density housing, such as having sidewalks and neighbors close-by, for example, support this view. A number of participants also favor more mixed housing in part due to the perception that it will be more visually interesting, urban and entertaining than the cookie-cutter subdivisions they associate with sprawl housing.

## Five Key Recommendations

The information in this report encourages planners and developers to discard current policies and practices that inhibit efficient and cost-effective planning, and adopt those that encourage a more desirable range of housing options and situations for homebuyers.

In order to prevent sprawl and preserve a viable rural, agricultural system, officials must take a more proactive view of planning and zoning. They cannot simply rely on zoning to accomplish these goals. It is crucial that economic incentives be shifted to support coordination and the creation of convenient and compact communities. The study led us to conclude that both market forces and community zoning regulations are critical to help Michigan curb the loss of farmland and rein in unplanned and wasteful sprawl. The following recommendations should be undertaken:

1. *Avoid Agricultural/Residential (A/R) and other ambiguous zoning districts.*

Quasi-rural zoning districts such as A/R zones are not functional. Many agricultural zoning ordinances currently in use turn rural areas into magnets for unplanned residential growth. They often result in increased loss of farmland and demand for costly infrastructure. Whatever the intention, A/R districts often yield large swaths of poorly designed residential growth and should not be used by local planners. Specified zones of large minimum lot-sizes should be eliminated except in limited areas where public infrastructure like sewer and roads is likely to remain unavailable and a limited amount of residential development is imminent. Every attempt should be made to mitigate the appearance of sprawl through designs that cluster housing and by providing more mixed-use zoning.

*“High-density housing is selling faster than single-family homes on separate lots, and projected to be increasingly more popular. Young people want urban culture, a cultural change.”*

*- Township official,  
Southeast Michigan*

**Real-life Zoning:  
Ambiguity in  
Agricultural  
Areas:**

**Zone: Rural  
Residential**

*Minimum lot size:  
One acre single-  
family residential.*

*Goal: "Conserve the  
rural character of  
the Township,"  
prevent urban  
sprawl, and prohibit  
uses that would  
require additional  
public services.*

**Zone: Agricultural/  
Residential**

*Minimum lot size:  
0.8 acre single-  
family*

*Application:  
Approximately 80-  
95% of township.*

*Result: Private  
homes on one- or  
two-acre lots.*

**Zone: Agricultural**

*Minimum lot size:  
Five-acre single-  
family residential.*

*Goal: "Conserve,  
stabilize, enhance  
and develop  
farming and related  
activities. . . ."*

**2. Zone communities by desired density rather than lot size.**

Higher density development can be enjoyable and profitable for all parties involved if it is well planned and includes open space, easy access to transportation, and a variety of housing choices. Simply zoning for large lots does not ensure quality development—in fact, it almost guarantees dissatisfaction and wasted resources. Zoning by density is more effective and will lead to higher satisfaction among homebuyers, builders and local officials.

Minimum density zoning is a regulatory tool that specifies the *minimum* allowable development density or floor area ratio, instead of the density *maximums* found in most traditional zoning ordinances, such as one unit per acre. Zoning by density encourages compact development by providing density minimums in zoning regulations.

**3. Rely more frequently on cluster zoning and Planned Unit Developments (PUDs).**

In 2001, most Michigan governments were required to adopt an open space zoning ordinance, so this planning tool is readily available locally throughout the state. PUDs allow developers to bend rules of zoning in exchange for including certain amenities, such as open spaces, commercial uses or transit-oriented design. PUDs have been used successfully in most Michigan communities to improve the mix of uses and density in new subdivisions.

Cluster zoning and PUDs are more effective than large minimum lot sizes in guiding future growth patterns and protecting agricultural land. Unlike large minimum lot districts, these tools provide the opportunity to accommodate a diverse base of uses and a more economical use of land resources.

Builders and developers who might otherwise choose clustered housing options frequently opt for more single-family residential projects on large lots because it takes too long to get higher density projects and land divisions approved, since these often meet resistance from township planning officials and local residents. Improving the planning and zoning process through promotion of compact design and better integration with local goals so that these delays are reduced could result in fewer large lot developments in Michigan's most fragile rural areas.

The Michigan Townships Association and the Michigan Municipal League have developed a model ordinance that can help communities successfully use PUDs as part of an overall land use plan.

#### *4. Coordinate land use and infrastructure planning across jurisdictions.*

More education is needed at the local level to ensure that planners have a consistent base of knowledge and understanding of land use issues, both at the “micro” local community level and at the “macro” level of long-term regional impacts and community changes that can be expected to arise from local zoning decisions.

Neighboring units of governments would clearly benefit from working collaboratively to protect the variety of land-based industries and residential development needed to sustain the economy across a broader geographic area that can accommodate both rural industry and residential development.

In terms of fiscal responsibility and resource protection, coordinating land use planning is perhaps the most critical of the recent recommendations of the Michigan Land Use Leadership Council.<sup>5</sup> It addresses the lack of coordination and cooperation between the approximately 1800 units of government making land use decisions in Michigan. Effort should be made to educate local planning officials about regional governance and changes to the state planning statutes that allow cooperation across jurisdictions and municipalities in minimizing the negative consequences of unplanned growth.

#### *5. Require Capital Improvement Plans to help communities plan for density.*

Houses are a one-time crop that alone will not sustain a community. Township officials often rely on homogenous, large-lot districts because of concerns about infrastructure. Higher density developments frequently occur in areas that are poorly suited to accommodate increased volumes of traffic, water usage and municipal services like fire and police protection. Communities could solve many problems by better balancing the demand for residential construction with an awareness of infrastructure needs and improvements.

Requiring six-year capital improvement plans at the local level can help ensure cost-effective and efficient delivery of infrastructure and services to all communities. Newer alternative waste disposal systems that could service larger numbers of homes on clustered lots may help alleviate the need for large lots, provided that other infrastructure needs such as roads are also considered during planning and zoning.

---

<sup>5</sup> *Michigan's Land, Michigan's Future: Final Report of the Michigan Land Use Leadership Council*. August 18, 2003, <http://www.michiganlanduse.org/>

## II. Analysis and Research Methodology

Across Michigan, the landscape and land use has undergone a dramatic change in recent years. Not long ago, you might take a short drive outside of a typical Michigan city or village and find yourself amid a predominantly rural or even agricultural landscape. You might find blueberry fields in West Michigan, or admire a herd of black and white dairy cows wandering in from the fields in Oakland County.

Today, were you to take the same trip, you would likely encounter a far different crop. On Michigan's pleasant peninsulas, the modern Saturday afternoon drive too often offers stop-and-go traffic, strip malls and collections of cul-de-sacs and single-family houses spreading across the once picturesque hillsides. What you're likely to find instead of beans or cows is the "one-time crop" of large, residential houses.

According to the Michigan Land Resource project of 2001, agriculture and food processing contribute about \$15 billion directly to the Michigan economy, and another \$22 billion is contributed indirectly through support and related services.<sup>6</sup> But farmland is being lost at a rapid rate in Michigan, as in many Midwestern states—most often converted to residential and other non-farm uses. Preliminary 2002 data from the U.S. Department of Agriculture indicates that Michigan lost 360,929 acres of land in farms between 1997 and 2002—an average of just over eight acres per hour.<sup>7</sup>

All told, nearly 1.5 million acres of Michigan farmland have been lost since 1982.<sup>8</sup> The loss is not isolated to a few defined areas, or the result of population growth. The changes we see are the consequences of a glut of unplanned and haphazard growth that has affected every sector of the state's economy. The continued loss of farmland and agricultural viability is of great concern to many in Michigan, and affects both the people who derive their livelihood from the land, and those who enjoy the pastoral nature and rural ambience of functioning farms.

Michigan's rate of land consumption outpaced its population growth eight times over between 1980 and 1995.<sup>9</sup> We are choosing to build new homes and businesses in the far outlying rural areas instead of putting

---

Agriculture Preliminary Report, National Agricultural Statistics Service. United States of Agriculture. Washington, D.C. 2003.

[ass.usda.gov/census/census02/preliminary/cenpre02.pdf](http://ass.usda.gov/census/census02/preliminary/cenpre02.pdf)

Agriculture Preliminary Report, National Agricultural Statistics Service. United States of Agriculture. Washington, D.C. 2003.

*sources Project*. Public Sector Consultants, Inc. Lansing, MI. November 2001. Page 6. [inc.com/Documents/lbilu/fullreport.pdf](http://inc.com/Documents/lbilu/fullreport.pdf)

Michigan's rate of land consumption outpaced its population growth eight times over between 1980 and 1995. Nearly 1.5 million acres of Michigan farmland have been lost since 1982.

these new resources to work improving our existing communities. As a consequence, farmland and rural landscapes are converted from productive agriculture to a hodgepodge of homes and fields, roads and pastures, malls and empty grain silos.

Amid these new homes and highways, farmers are often left with too little land or flexibility to maintain a viable operation. The pressure to sell the land increases. For example, appraisers valued farmland in the Southern Lower Peninsula in 2000 at \$1,839 per acre for farming, and \$7,423 per acre for residential land.<sup>10</sup> Not only is farmland lost; the farmers themselves disappear, selling the land and moving on. As the rich soil and rural landscape disappear, so does Michigan's rural heritage.

To fully understand the complex interaction of market forces, regulation and human factors that are reshaping Michigan's rural areas, we approached an examination of large lot zoning with three fundamental questions:

- 1) What are homebuyers looking for in terms of density and community character?
- 2) Why are township officials using large lot zoning?
- 3) What factors are influencing the home building industry?

## A. What are homebuyers looking for?

To better understand the demand for large-lot residential zoning, the Michigan Environmental Council contracted with a reputable public opinion polling service based in Washington D.C. to conduct a series of focus groups to determine what values were most important to potential homebuyers. Belden Russonello & Stewart conducted four focus group discussions among voters in May 2003; two in the Detroit area and two in the Grand Rapids area.

The four focus groups reveal consumer preferences for specific housing and neighborhood characteristics, as well as the basic values underlying these preferences. The groups were comprised of participants who identified themselves as prospective first-time homebuyers intending to buy their first home within the next five years.<sup>11</sup>

In each of the groups, participants were presented a choice of two neighborhoods in which to buy a home. One option included characteristics of a typical low-density sprawling home situation, while

### **Core values of Michigan's potential homebuyers:**

**Freedom:** *the desire for privacy, quiet, space and having a choice of where and how to live*

**Security:** *keeping one's family safe from crime*

**Desire to secure a high quality of life for one's family:** *convenience, diversity, knowing one's neighbors*

**Aesthetics:** *a desire to be near nature, parks, rivers, lakes, as well as a dislike of "cookie-cutter" housing developments.*

<sup>10</sup> *Michigan Land Resources Project*. Public Sector Consultants, Inc. Lansing, MI. November 2001. <http://www.pscinc.com/Documents/lbilu/fullreport.pdf>

<sup>11</sup> The composition of the homebuyer focus groups can be found in Appendix 2.

the other described a higher-density community with a variety of housing options.<sup>12</sup> No participant in the groups changed his or her preference for either type of housing during the course of a two-hour discussion of the pros or cons of each type.

Pollsters discovered that, rather than being influenced in their home purchase by any single housing characteristic (such as lot size), there are a relatively small number of core values that underlie the potential homebuyers’ attitudes regarding housing: freedom, security, the desire to secure a high quality of life for one’s family, and aesthetic values such as greenspace.

These values, rather than any particular home, lot size or style, were the fundamental factors influencing the decisions of the potential homebuyers. These core values motivated preferences on both sides of the large-lot vs. more compact housing debate. People don’t only buy houses with large yards, seclusion or other specific feature. A range of housing options appeal to homebuyers if the underlying core values are satisfied.

Based on the focus group discussions the pollsters concluded, “if people have the money to choose between two types of living environments, and the housing options are made available to them by builders, more often than not across the groups we hear voices preferring the higher-density development.”

Focus group research also revealed that the terms used to describe different types of development and their purposes are not well understood, often leading to confusion between homebuyers and the development and regulatory communities (see Fig. 1).

<b>Planners Say</b>	<b>Planners Mean</b>	<b>Homebuyers Hear</b>
Livable Communities	Neighborhoods with a mix of businesses and residences, as well as open spaces and transportation options.	Something vague, like they are settling for less than optimal living conditions. According to one Grand Rapids area man, "livable is a weasel word . . . it's something you say when you don't want to say anything bad."
High Density Development	Compact, walkable community design that reduces strains on public infrastructure like sewer, water and roads.	Overcrowded neighborhoods with buildings and houses crammed together. One Detroit area woman felt it meant “too many people per square mile.”
Protecting Green Space	Clustering development to reduce fragmentation of open spaces.	Widely spaced housing avoiding dense development that paves over open space.
Walkable Communities	Places where homes, workplaces and amenities are in close proximity.	Places where homes, workplaces and amenities are in close proximity . . . it also symbolized safety.

**Figure 1. Phrases used by planners have different connotations for homebuyers.**

<sup>12</sup> The description used in the homebuyer focus groups appears in Appendix D.

Communications barriers exist between community development agencies and prospective buyers. Phrases commonly used among developers and planners have distinctly different connotations for homebuyers, according to the study.

When an accurate and full description of all factors involved in a home was provided (housing style and neighborhood characteristics, safety and knowing one's neighbors), these other considerations proved more important in the decision-making process than lot size.

Housing options proved to be a key factor for homebuyers. Despite the prevalence of large, single-family homes on large lots in the Detroit suburbs and Grand Rapids areas surveyed, the participating first-time homebuyers indicated that they would prefer to see a diversity of choices in the size and density of homes available.

Many homebuyers rated the choice of housing options (size as well as type) highly. Homebuyers like the idea of having communities with a mix of smaller and larger houses and townhouses, because it gives them more choices, and therefore more freedom of choice. Many participants express the belief that an area with a variety of housing choices would also have a greater sense of community and neighborhood atmosphere than would a more sprawling community.

From the research, it is clear that homebuyers generally make their choices based on a set of core values that do not change. It is only when homes are marketed and communities designed with these values in mind that a full range of housing options will become available in the marketplace.

In promoting more compact housing options and traditional neighborhood designs with sidewalks and access to schools and shopping, the challenge lies providing and explaining amenities and features. Our findings suggest that many homebuyers will choose higher density developments if they understand that security, aesthetics and a high quality of life will be ensured.

Responsibility for fulfilling this promise falls to the planning and development communities, because these attributes are the products of good design and adequate provision of municipal services (e.g., police and fire protection, roads and schools), rather than simply being a matter of location (in low density developments far from population centers.)

*Homebuyers make choices based on a set of core values that do not change. Only when homes are marketed and communities designed with these values in mind will a full range of housing options become available in the marketplace.*

## B. Why are township officials using large lot zoning?

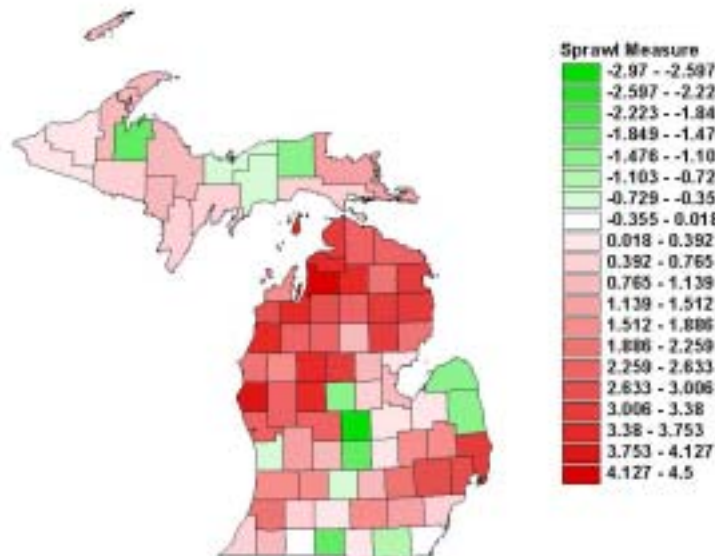
### Research

To gain a more complete understanding of the complex governmental, economic and personal choices driving low-density development, we undertook to compile a sample of information from select township planning officials. Via phone and mail we contacted primarily zoning administrators in key rural areas facing rapid and unplanned growth.

The study is intended to provide insight into the zoning practices and perceptions in townships facing the most direct development pressure; i.e., townships in the rural fringe areas where the most unplanned development is occurring.

To determine which of Michigan's 1,242 townships should be sampled, a set of indices were developed to determine the top 80 most-sprawling townships. For this purpose, a sprawl index was used, which is based on a comparative analysis of block data from the 1990 and 2000 Decennial Censuses with an eye toward disparities in population and density over the decade.

The sprawl index is based on a Gini Ratio analysis, similar to those used by economists, to analyze the distribution of population over the land. If the distribution of a population across its land area becomes increasingly equal over time, it indicates the population is spreading out or sprawling, with fewer areas of concentrated populations and a more homogeneous density across the area (see Figure 2).



**Figure 2. A Sprawl Index was created to identify counties where the population is increasingly diffused across the land area.**

This pattern indicates low-density development is occurring across a wider geographic area, yielding the homogenous and decreasingly concentrated pattern of development known as sprawl.<sup>13</sup>

Once the sprawl index was established, data from Michigan State University's Institute of Public Policy and Social Research was referenced to locate the 653 townships known to have zoning ordinances, in order to choose the best candidates for participation in the study.

A random sample of 30 townships was ultimately selected from this final pool based on location within a sprawling county, availability of zoning ordinances and willingness to participate in a survey. For these townships, a planning official (most often the Zoning Administrator) was contacted and asked to respond, either in writing or verbally, to a survey designed by the Michigan Environmental Council in consultation with the project advisory committee and the polling firm of Belden Russonello and Stewart.<sup>14</sup>

The survey format provided a forum to encourage zoning officials to discuss their perceptions, goals and desired outcomes for zoning practices, approach to accommodating growth and the home building industry, and efforts to balance residential growth demands with farmland protection and economic development.

In addition to these conversations, the zoning ordinances of an additional 18 select townships were collected and analyzed to gain a sense of the prevalence and type of large lot zoning being used. The townships were again chosen from the top 80 townships as established by the sprawl index, based on the availability of zoning ordinances.

The characteristics and minimum lot sizes of the 48 townships that comprised our sample pool are shown in the appendices to this report. The survey responses and zoning information from local planning officials provide valuable insight into the origins and various applications of large lot zoning, and how it is perceived within township planning departments across the state's sprawling rural townships.

The selection criteria were successful in locating a set of townships facing low-density residential development pressures, as indicated by the responses of the townships that participated in the survey portion of the analysis. The majority of responses from participating township officials reflect a perceived increase in the number of people moving into the township; most suggest that the majority of the people in their

*Nearly half the respondents report that the dominant land use in their traditionally rural townships has now become suburban or completely developed.*

<sup>13</sup> See Appendix C for a more complete explanation of the process of creating and utilizing the index.

<sup>14</sup> See Appendix C for the complete survey.

township commute to jobs outside the township, and that traffic congestion in their once rural township has become moderate or heavy.

In other words, most of the township officials who participated in the study describe their township as a quintessential low-density commuter community. Some identify themselves as bedroom communities. Nearly half of the respondents report that the dominant land use in their traditionally rural townships has now become suburban or completely developed.

As described below, the responses provided by township officials indicates the level of understanding regarding the long-term effects of low-density development varies greatly and is frequently conflicted.

*Some township officials consider two-acre and larger parcels viable “open space,” despite their fragmented character and private ownership.*

### *Findings*

#### *1. Township officials have mixed understanding of suburban sprawl.*

Discussions of urban sprawl and open space highlight the diverse levels of understanding of township officials, and reveal a communications barrier with township officials similar to that found with homebuyers. Several officials feel open space is improved through large lot zoning, because they characterize two-acre and larger parcels as open space despite the fragmented nature and private ownership of these areas.

Sprawl is sometimes thought to be, in the terms of one particularly adamant zoning administrator, both “bad and *ugly*,” while others believe that suburban sprawl is good, with a positive effect on open space, tax base and quality of life. In this respect, the communications barriers that were noted in the homebuyer focus groups again proved prevalent.

Many officials clearly feel that sprawling development—especially if it consists primarily of large, single-family homes—is good for the tax base and improves the quality of life for residents because it provides a “rural” setting with a strong tax base.

“For [our] county, [sprawl means] lots of money because expensive homes are going up,” says one township official. “Allowing more homes equals more money.” Another points out that, with suburban sprawl-style development, tax revenues increase because there are more expensive homes instead of lower-cost high-density development. “We have homes in our area that are \$7 million homes. It takes a lot of condominiums to do that,” says one official.

In addition to the problems arising from this reliance on pure residential development for tax revenue, the focus on high-end housing markets and exclusionary zoning in rural areas exacerbates the social inequities that arise when housing choices are not provided in a fair and equitable manner to all sectors of the population in a community.

Other township officials take a broader view of suburban sprawl by including the costs of providing municipal services to a widely dispersed population; one estimated that every residential home built in a rural area brings in approximately \$1.00 for every \$1.50 it costs the township, while farmland only costs \$0.60 for each \$1.00 return. Another zoning administrator notes that the increased costs associated with residential development are often borne by the taxpayers in higher density areas, as their surplus tax revenues must be tapped to provide an extension of services to lower density areas.

## 2. Officials look to large lots and limited services to deter sprawl.

### *Large Lot Zoning*

Nearly all of the sampled townships use some form of large lot zoning, though not all acknowledge it by that name. The majority mandate minimum lot sizes of two acres or larger; many are greater than five acres, and a few are as high as 10 acres.<sup>15</sup>

Minimum lot size requirements are most frequently found in the ordinances of either an agricultural or semi-agricultural zone that also permits residential construction (i.e., the sampled township has a zoning designation dedicated “agricultural use,” but the ordinances for that district also allow single-family detached residential homes and mandate minimum lot sizes for this use).

Several officials indicate that the majority of the new residential development occurring in the township is taking place on land within the zone dedicated for agricultural use. The lack of a clear distinction between agricultural and residential uses is exemplified by one township official’s unselfconscious acknowledgement that the township’s “zoning is mainly agricultural; the use is mainly residential.”

A comparison of township goals and their actual zoning reveals a prevalent reliance on large lot zoning to minimize or exclude higher density development. Many of the sampled townships indicate their ordinances are part of an effort to preserve either rural character or agricultural viability. Some townships use the ordinance in an attempt to

*Officials indicate that the majority of new residential development is taking place on land within the zone dedicated for agricultural use.*

<sup>15</sup> See Appendix C for complete sample data.

protect the agricultural base from costs associated with urban sprawl while also encouraging limited amounts of residential construction in order to grow the tax base and support an ongoing influx of residents.

Problematic hybrid zoning districts, falling under various designations including: Agricultural/Residential (A/R), Rural-Residential (RR), Country Estate (CE), and Rural, were found in more than half of the townships surveyed. The lot sizes in these areas are typically one, two, or three acres—the precise size that many planners have characterized as “too large to mow, too small to farm.”

The prevalence of these hybrid Agricultural/Residential zones is disturbing because they fail to fulfill the goal that zoning is created to accomplish—differentiating and protecting various uses. One township official acknowledged, “Our whole township is zoned agricultural/residential, except for one commercial site.”

In effect, the entire township is one large block of land with two-acre minimum lot sizes for residential construction—a good scenario if the objective is to fragment blocks of farmland and disperse homes across a wide area; the worst possible situation if the intent is to create compact communities that protect farmland, stabilize economic investment and minimize costly infrastructure investment.

### *Lack of Infrastructure*

Misconceptions about municipal services and infrastructure, particularly water and sewer services, quickly arose as a critical issue driving the use of large lot zoning in the townships surveyed. Limited public infrastructure is also common in the sampled townships, and is often cited as a tool for exerting some form of growth control. Many township planning boards are juggling a complex need for tax base with a lack of municipal services in rural areas.

Homes built on land that lacks publicly provided sewers and water infrastructure must rely on personal septic systems, typically underground. For valid environmental reasons, a home with a septic system is required to have adequate land area to accommodate the waste treatment, which in most rural townships translates to large lot zoning. Townships often want residential growth for tax reasons, but cannot afford to provide municipal services to support higher density developments on their own, unless they are concentrated and located near existing infrastructure systems.

In the above example, the official says the township “has poor soil. It’s hard to get the required percolation tests (for the health department to put in septic systems) on that type of soil. If we had sewer and water we would have [smaller] 12,000 feet minimum lot sizes.”

The result is rampant large lot residential growth, which yields new homes but doesn’t provide the infrastructure investment to support them. The majority of townships in the

study acknowledge that traffic volumes in their communities have become moderate to heavy due to increased populations, and many suggest the volumes are continuing to increase. Rating the level of traffic, says one, “it depends on how long you’ve lived in the township.”

Exacerbating the problem of traffic, the growth in population in the townships was composed of mostly “bedroom community” commuters who travel out of the township daily for work, adding to the demand on roads and municipal services. Once a road is home to a sufficient number of houses, especially if the residents are commuting travelers, the township will have traffic volumes high enough to necessitate costly improvements.

While lack of infrastructure may seem like a reason to control residential growth, it was more often cited by township officials as the method to control that growth. A common perception among township officials was that a lack of infrastructure is a good thing, because “not having water and sewer helps control growth.” Controlling growth, in this case, means using large lot zoning to keep growth from directly polluting the environment, or reaching the point that the township would have to provide costly infrastructure.

One participating township recently increased its minimum lot size from one acre to two acres for residential development, because “on one acre, once [the home owner] had septic and a well in place, there wasn’t enough room for anything else, and if system failed there was no room to put another one in.” Another expressed the same sentiment, explaining that the “typical lot size” is a real problem, because there’s “not sufficient room for well and septic” systems. “We can’t get lower than one or two acres in our township, unless there are alternative systems for treating waste.”

Many of the sample townships acknowledged that they do not zone for commercial or industrial use in the township. The primary land uses were agricultural or residential, or more often mix of the two. Farmland provides very little in the way of tax revenue to a municipality, so townships become entirely dependent upon residential growth for revenue.

The large-lot zoning approach seems harmless and logical to officials in rural townships lacking municipal services. Most townships encourage residential growth to occur, provided it is dispersed in low densities so that homes can be built without township being required to provide municipal services

*Growth occurs with little regard for future farmland, transportation or infrastructure costs when the township must provide services to a widely dispersed population.*

But in reality, the growth then occurs with little regard for future farmland, transportation needs or wasteful infrastructure costs that will eventually be borne by the township as it becomes more homogenously developed and must begin to provide services to a widely dispersed population. Cluster development is no longer possible because all large blocks of land are fragmented by one and two-acre lots. Infill development in the small gaps between lots becomes the only means of accommodating growth.

The community becomes completely built-out, with little or no room or money to provide the kinds of amenities and services homeowners desire in a higher-density community. Unhappy homeowners move on to the next more rural area and start the pattern again.

In a recent issue of *American Public Health*, Burchell and Mukherji reported on the costs of sprawl.<sup>16</sup> They noted that sprawl results in around \$4.2 billion dollars, or 10 percent higher public service deficits per year in the United States. They estimate that compact development could save some \$4 billion dollars per year in public service funds.

Moreover, Burchell and Mukherji project that the United States will spend around \$190 billion dollars on extending sewer and water lines to single family homes between 2000 and 2025. Over the same period, they project that the U.S. could save \$110 billion dollars in road building costs under a managed growth plan.

### C. Townships often resist higher density projects and builders

The study sample of township officials reveals a resistance to the idea of higher density development for a number of reasons, including increased infrastructure costs, and for some, a history of dealing with poorly planned high density projects. The words “high density” elicited a negative reaction by many township planning officials similar to the reaction of homebuyers focus groups summarized earlier in this report.

“Higher density is bad,” says one township official. “People don’t want it, [and] builders are doing it for themselves.” Higher density development—even subdivisions—were often assumed to be harmful to communities, the product of “greedy developers,” and counter-productive in terms of infrastructure investment and preserving a community’s “rural character.”

Conversely, as discussed earlier, single-family residences on large lots, with strict building requirements, were viewed as a way to preserve the “rural” character of the township specifically by allowing residential development while excluding other types of higher density development, such as condominiums, apartments, or even planned subdivisions. One official had a particularly negative view of subdivisions and condominiums saying, “bigger is not better. People moved out here to get away from

---

<sup>16</sup> Robert W Burchell, Sahan Mukherji. “Conventional development versus managed growth: The costs of sprawl”. *American Journal of Public Health*, Washington: Sept. 2003. Vol. 93, Iss. 9; pg. 1534. <http://www.nahb.org/generic.aspx?genericContentID=17371>

that.” Some of the perceived negative aspects of higher density are that it costs more, and increases the crime rate.

While not universal, several township officials also strongly believed that homebuyers are opposed to living in densely populated areas. “Answering on behalf of people living in [my township], people are moving away from that,” says one. “I don’t like condominiums,” says another official, “and I don’t want them in our township. Putting up high density housing means putting up condos. We have 25 miles of lakefront, and we try to hold that down to single family homes (approx. ½ acre minimum lot size), because it has less impact on the lake.”

Some officials also believed that developers are simply out to make a profit by developing more dense communities. Builders are “not doing it to build a nice neighborhood!” said one. “[They are] out to make a buck!” Another admitted that almost all the lots in the township itself were “between five and eight acres, and that they include specific requirement to “prevent developers from planning subdivisions.” Another official explained that the township is seeking “lots of large lot development, but only one home for every few acres. Most development money is in density—the higher the density, the higher the benefits for developers.”

Some township officials are wary of even cluster development options because of a bad experience. One suggests that a “developer attempted to take advantage of our township by clustering 38 lots all together; all lots did not have access to open space, they created a crossroad to further cluster development. . . . The developer was being greedy by adding more homes, by trying to put too many homes into the development.”

### **C. What factors are influencing the home building industry?**

A significant driver of the large-lot zoning trend is a belief that higher, urban scale densities are not marketable. Even when the minimum lot size in a community is sufficient to sustain more development, home builders often choose to offer larger lot sizes because the market for low-density housing will support it, and many believe it will not support more compact housing development options.

To better understand the relationship between perceived homebuyer preferences and the home building community, a small sample of members of the home building and development industry were asked to provide answers to a short survey designed by the Michigan

*“Dense housing is selling as well as large lot homes, though larger lots equate to better status. The wealthy like big homes and do not want small homes around them. The people who work here can’t afford to live here.”*

*- Township official,  
Northwest Lower  
Peninsula*

Environmental Council in consultation with a project advisory committee.<sup>17</sup>

The purpose of the sample was to examine the common perceptions that builders and developers prefer to build low-density housing, and that building on large lots allows them to build large, expensive homes that yield larger profits. Another purpose of the study was to establish whether or not there is demand for higher densities among the general home-buying public.

When high density is presented as a well-planned community consisting of a range of lot sizes and housing types, nearby shopping and entertainment, and open spaces there is a more favorable reaction from homebuyers. Information collected from the public, from local elected officials, and builders, suggests that the demand does exist in Michigan, if it is provided in well-designed communities, and when the characteristics are presented in a straight-forward way, including:

- Convenience to culture and the city
- Housing that gives you more choices about how you want to live
- Life in a culturally diverse, enriching atmosphere
- Streets that have sidewalks to walk along and roads that are safe to cross rather than busy thruways
- Housing that creates a neighborhood

Some home builders, like homebuyers, remain particularly wary of terms like high-density and large-scale developments, suggesting that it simply implies “houses with very little yards and privacy or cluster building.” However, there were several local planning officials and builders who acknowledge that the demand for more compact development exists, if it is well designed and public services are provided. The issue, as with homebuyers, is primarily one of communication and perception.

According to one builder, suburban sprawl and large lot homes are popular right now because people have “equated large lots with better schools, safer neighborhoods and lower taxes. People will choose higher density, but safety and good education need to go with it.”

This parallels the perception of some local planning officials. “The public will not want to buy housing options with lots sizes smaller than ¼ acre,” says one township official. “People want large homes, and three

*“I see very high demand for high-density housing. I think the culture has changed, and people want a social life.*

*- Township official,  
Southeast Michigan*

---

D for the complete survey supplied to home builders.

garages. When you factor in setbacks and utilities, people cannot build home size that they want [on smaller lots].”

But many home builders and local officials contend that a market exists for higher density development, if the core values of the homebuyers are satisfied and well-articulated. “Some new developments in our area have been very successful that are old style with very small lots, less than 7000 square feet, but with walkways and open space for the residents,” said one local official.

“Roughly, our density now is four units per acre,” said another official in a more built-up community. “It seems to satisfy people that have moved here, who seem to feel that it is plenty big enough. We don’t hear too many complaints about lots being too small or too large. I think the current size is decent for single family homes.”

Home builders also support more high-density housing in Michigan. In the words of one builder, “More density allows more homes to be sold at a more affordable price and they sell faster.” Of the participating builders in Michigan, the majority who expressed a greater interest in building homes of a particular density would like to build seven homes per acre—a marked difference from the zoning rules in many of the participating townships.

In Michigan, there appears to be a mutual communication and policy breakdown between local planning officials and home builders, with each blaming the other for the barriers inhibiting more compact development. “There are many developers who would like to build higher density residential development,” said one home builder. “However, zoning, planning and health laws are *very* counter-productive to this effect.”

Townships officials expressed similar frustration with builders, particularly in reference to the resources and infrastructure issues involved with building higher density development. “Builders think that building homes is a boon to a township—it’s not true. That’s the hardest thing to get across to builders.”

Another official suggests that “Building dense housing in [our township], with no sewer and water, would cost a lot—to create septic and get water out there,” said one. “And infrastructure is tough to do, [like] public roads. . . . I’m not opposed to cluster housing as long as you have infrastructure.”

Part of the problem is a fundamental misunderstanding of infrastructure, specifically in terms of who should provide the infrastructure for low and

*Home builders and local officials contend that a market exists for higher density development, if the core values of the homebuyers are satisfied and well-articulated.*

higher density developments. According to one official, with “low density using well and septic systems, there is no infrastructure that needs to be installed by the developer. They are not out there laying water and sewer mains, but the developers are laying more roads.”

Township officials often support low-density development precisely because they don’t believe that infrastructure is necessary for lower density development, and by not providing such infrastructure, they are protecting their township’s “rural” character. Some township officials suggested a need for new ordinances that would require developers to provide services for higher densities.

The communications breakdown was reduced when local officials, homebuyers, and home builders spoke about core values and designing density, rather than individual attributes.

“We are working to protect agricultural areas and open space while allowing for modest growth,” said one local planning official. “We’re encouraging clustering, so that any developments would have clear vista of open space, and people can have a rural feeling. How do you compromise homebuyer desire with preserving open space? Planned Unit Developments can do this. They allow homebuyer to have view of agriculture but cluster buildings.”

This concept resonates with home builders as well, because it can mean creating a “close-knit community” while also getting more houses per acre, more profit and reduced infrastructure costs. New designs that help protect open space by clustering homes and balancing the new homes with reasonable investment in new infrastructure can yield compact communities that meet the demands of homebuyers, ensure profitability for builders, and help local planning officials protect resources and agricultural viability.

The more that the communications barriers can be reduced by having conversations about design, not just lot size, the more likely it is that good results will occur. “Because of studies and meetings,” says one township official, “we’re trying to get away from the traditional view of high density housing (cookie cutters in small lots in neat little lines).

The alternative is a cluster of five or six homes that are close together, with new septic systems in wetlands nearby (pond areas, one with liner, septic tank goes into that, covered with reeds and soil, second pond area has no liner, so there is percolation and water going through moves so slowly that it gets filtered.)”

### III. Conclusions

The typical result of large lot zoning is a swath of lots that are larger than most homeowners want to care for, and yet are useless for farming—that are indeed the “dead space” referred to by one local township official. “Too large to mow, too small to farm,” these lots offer the perception of safety and security, without the convenience, mobility or other features most homebuyers also desire. As a report sponsored by the National Association of REALTORS® in 2003 suggests, “Jurisdictions that prohibit density create an environment where low-density development is the only option, open spaces are consumed at alarming rates, traffic congestion increases as people drive longer distances to work and home, and subdivisions grow up without any town center, any corner store or any sense of community.”<sup>18</sup>

Large-lot zoning runs counter to community interests by fragmenting the land resource township zoning officials are attempting to protect and inhibiting the provision of services and quality of life amenities. By trying to use large lots to preserve agriculture, the officials hasten the arrival of the point where farming itself becomes prohibitively expensive and new homes are continually built and costly infrastructure is required.

The resulting low density and unplanned land consumption has proven devastating and frustrating for home builders and buyers alike, irreparably fracturing the character of these communities, and consuming the open space and land-based resources and industries that define the area.

Over the long term, communities are left without viable agricultural land or a self-sustaining tax base, and new development moves to the next rural community. Large lots fragment the land base and harm industries that rely on the land for their continued existence, including farming, timber and recreation.

Hybrid forms of Agricultural/Residential or Rural Residential zoning are particularly problematic, because they are not farmable, but neither are these areas part of a clear plan for residential growth; they typically lack sewer, transportation and other services necessary to accommodate the inevitable population growth in such an area. They are outdated and ineffective for addressing modern growth issues; one community utilizing agricultural/residential zoning with a minimum of two acres lots indicated their ordinance has not been updated since the 1960s.

<sup>18</sup> “Creating Great Neighborhoods: Density in Your Community.” Local Government Commission of the U.S. EPA. September 2003. Page 2.

*Large-lot zoning runs counter to community interests by fragmenting the land resource. It is outdated and ineffective for addressing modern growth issues.*

The land in these homogenous Agricultural/Residential districts, like most large lot areas, becomes a burden on the state and local officials who must eventually pay to extend services to areas that would have been more economically viable and efficiently utilized as farms or forests. The homogenous blending of residential property and resource-based industry does not protect rural character or agriculture, and instead perpetuates sprawl.

Overall, our findings indicate that Michigan's current consumptive land use trend is driven by a fundamental misunderstanding between key stakeholders in the state, namely: local and state planning officials who decide how land resources in their communities will be divided and utilized; developers, realtors and home builders who purchase the land and build homes and businesses; and the public who buy the houses.

In addressing the reality of large lot zoning, there is a clear need to debunk certain long-standing myths about homebuyers and builders, and to better understand the way that land-use decisions affect the lives of the people who buy the houses and their vision of how their homes and communities fit in the overall landscape.

The findings suggest that, in buying a home, the public places a high value on things like privacy, safety, and green space. Unfortunately, for the last several decades, these core values have been translated by local planners, builders and developers into single-family dwellings on large lots in fragile rural areas. Rather than using comprehensive planning and thoughtful design to create communities that meet these needs and values in a more compact and efficient manner, planning officials, builders and homebuyers have turned to sprawling lots located in open land on the fringes of established communities.

In some ways, this retreat has offered a sense of safety to homebuyers by keeping them at a distance from urban areas and city centers, unfairly built on a harmful form of economic and social exclusion. But as newer development leap-frogs itself farther into rural areas (in the form of strip malls, highways, and other unsustainable development), home builders, developers and local government officials seeking to protect the natural resources that appeal to prospective homebuyers have relied on outdated tools and accelerated the consumption of resources and natural features.

Preserving Michigan's rural character, agricultural heritage, and natural beauty is in the best interest of all parties. The solution thus lies in better documenting the reality of current planning and zoning practices and communicating these realities to the home-buying public, so that market forces can bring sprawl into check and create a better, more sustainable, and more satisfying economic and social basis for land use decisions.

By agreeing on common terms and taking a serious look at the causes and consequences of large lot zoning in our most fragile and threatened areas, these three groups could provide a road out of wasteful and harmful land consumption, and transition to more fulfilling and sustainable patterns of development.

## IV. Policy Recommendations

There are effective alternatives to large lot zoning that both local governments and state policymakers could employ to better meet homebuyer needs while preserving open space and protecting rural economies. The policy recommendations that follow should help Michigan move away from reliance on ineffective large lot zoning and instead focusing on preserving true agriculture and providing satisfying living environments at higher densities.

Through the effective use of cluster zoning, zoning by density, and reinvestment in existing small towns and communities, Michigan may yet be able to preserve the sense of place and quality of life that make it unique in the country, and a desirable place to live for now and years to come.

### *1. Avoid Agricultural/Residential (A/R) and other ambiguous zoning districts.*

In Michigan's many rural townships struggling to preserve an agricultural heritage, the use of hybrid zones, like Agricultural/Residential (A/R) defies the original intent and primary function of zoning. More and more, farmers, local officials, planners and citizens are realizing that large lot zoning does not protect either agriculture or residential use. Most hybrid A/R zoning is *de facto* large lot residential zoning that encourages the subdivision of farmland into one, two or five acre parcels for housing, rather than protecting large blocks of agricultural land.

We need to better understand the limitations of residential zoning to protect natural resources. Ecological factors sometimes prevent dense development, such as the need for water quality protection when sewer infrastructure is lacking, and economic factors can often drive large lot zoning such as in the case of protecting farmland or forests. It is unclear what the most effective lot sizes for such uses are. The average farm size in Michigan is approximately 200 acres – perhaps this is the appropriate size for A/R zoning if it continues to be used by local governments.

Next steps:

- Local officials should separate A/R zoning into either agricultural or residential to send a clear signal to potential home builders or homebuyers about the long-range intentions of the community for the use of the land.
- The governor or the Legislature should direct the Michigan Departments of Agriculture, Environmental Quality and Natural Resources to develop guidelines for natural resource protection using large lot zoning.

### *2. Zone communities by desired density rather than lot size.*

Minimum density zoning is a regulatory tool that specifies the *minimum* allowable development density or floor area ratio, instead of the density *maximums* found in most traditional zoning ordinances, such as one unit per acre.

Zoning by density encourages compact development by providing density minimums in zoning regulations. For urban uses, they specify the minimum allowable development density or floor area ratio; in rural areas, density minimums will encourage clustering of housing to protect greater blocks of open space.

Higher density development can be enjoyable and profitable for all parties involved if it is well planned and includes open space, easy access to transportation, and a variety of housing choices. Zoning by density is more effective and will lead to higher satisfaction among homebuyers, builders and local officials.

Next steps:

- The Legislature should specifically enable zoning by density for municipalities and townships.
- Local governments should restructure their zoning ordinances in areas slated for residential development to use minimum density delimiters.

## *2. Rely more frequently on cluster zoning and Planned Unit Developments (PUDs).*

Cluster zoning locates buildings in limited areas on a site to protect the remaining land in its undeveloped state. In 2001, most Michigan governments were required to adopt an open-space zoning ordinance, so the tool is in place locally throughout the state. PUDs allow developers to bend the rules of zoning in exchange for including certain amenities, such as commercial uses or transit-oriented design. PUDs have been used successfully in most Michigan communities to improve the mix of uses and density in new subdivisions.

Michigan citizens, developers and local officials, however, need to better understand how to most effectively use these two tools in combination to protect open space and encourage the development of neighborhoods and walkable, mixed-use communities.

Next steps:

- The governor should direct the Michigan Department of Labor and Economic Growth along with the Michigan Economic Development Corporation to publish guidelines for using cluster zoning and PUDs to maximize sustainable community development. This research should be done in conjunction with or led by the Michigan Society of Planning and local government associations.

#### *4. Coordinate land use and infrastructure planning across jurisdictions.*

A frequent complaint of developers and citizen organizations alike is that the development rules and goals differ dramatically from one community to the next, preventing regions from achieving common land protection goals or a shared community development vision.

In order to relieve some of the pressure on local governments to zone for large lot residential use, regions need to have a shared understanding of where to direct denser development and where to preserve open space and farmland.

Recent legislation signed into law by Governor Granholm allows neighbors to put their planners in the same room working together with the clear expectation that their efforts will hold the weight of the current formal planning process. The creation of joint municipal planning commissions will help neighbors resolve border conflicts, such as annexations, in the planning phase rather than when a development decision becomes a “do or die” situation.

Cooperative planning establishes a simple, straightforward and fair method for cooperation, giving residents and developers a clear legal framework in which to debate land use decisions without obstructing efforts of like-minded government leaders to work together.

Goodwill alone, however, is sometimes not enough to put neighboring governments in the same room. Neighboring units of governments would clearly benefit from working collaboratively to protect the variety of land-based industries and residential development needed to sustain the economy across a broader geographic area that can accommodate both rural industry and residential development, but they may need some encouragement to begin breaking down the barriers that history may have put between them.

Next steps:

- The governor and the Legislature should work with the private sector to develop and implement a set of incentives for local units tied to their willingness to create joint planning commissions, including:
  1. Regional revenue sharing authority;
  2. Regional gas and sales tax authority; and
  3. Priority funding for commerce centers and agricultural security areas.

#### *5. Require Capital Improvement Plans to help communities plan for density.*

A common concern of local government officials is that growth will require infrastructure development they cannot afford, either for environmental protection or to meet consumer demand. Large-lot zoning as an alternative only delays resolving these problems, and has

the potential to ultimately exacerbate them by spreading out the population that needs to be served.

For example, we have seen that large lot zoning is at heart of many traffic problems that are typically answered with expensive new wider roads. To ensure that large-lot zoning, when it is used, does not negatively impact the economic or environmental characteristics of a community, local governments should make sure that infrastructure is in place as an area develops.

Next steps:

- The Legislature should amend the three planning enabling statutes to require local units of government to develop long range plans for public infrastructure development, including roads, sewer and water.

#### *Additional research needs*

Our research also points to additional related issues in need of research, including providing an accounting of the costs of community services related to large lot residential development.

## V. Appendices

### Appendix A: Density Definitions and Tools

#### *Definitions*

Density is generally defined as the amount of residential development permitted on a given parcel of land. It is typically measured in dwelling units per acre—the larger the number of units permitted per acre, the higher the density; the fewer units permitted, the lower the density.<sup>19</sup>

Establishing a common definition for density, and specifically for “large-lot zoning” in Michigan is no simple proposition. With more than 1500 individual entities holding some kind of planning authority, including 1,242 individual townships, there are a range of landscapes, situations and definitions. Many rural townships continue to define land in terms of the traditional 40-acre standards.

To our state-level land use planners, on the other hand, a functional density could be four or five dwelling units per acre; for transportation planners, density is often understood in terms of the number of people in an area needed to support minimal bus service (eight units/acre, 30 minute headways) or a transit station (20 units/acre). American Farmland Trust considers the issue from the perspective of defining the land base needed to create viable agricultural production operations, or minimum agricultural lots of 25 acres.

Michigan’s most serious land use problems can occur when these distinctions are confused and the uses combined, as when residential and agricultural are combined in one zoning area. For the purpose of this research, we defined low-density residential zoning in Michigan as zoning or combined zoning ordinances that effectively encourage one dwelling unit or fewer per acre of land.<sup>20</sup>

While this definition could be debated for individual situations, a broad area of such single-use residential density would make it impossible to access any amenities such as shopping, school or work without use of an automobile. This density also requires greater investment in roads, water, and other utility and service infrastructure per unit than higher densities. Well-designed higher density development includes mixed uses with an average minimum of seven households per residential acre (enough to support cost-effective and high-quality public transit.)

---

<sup>19</sup> “Creating Great Neighborhoods: Density in Your Community.” Local Government Commission in Cooperation with the U.S. EPA. September 2003. Page 1.

<sup>20</sup> While density of one unit per acre could be considered fairly high in the Upper Peninsula or other areas of rural Michigan, if the entire state were to utilize even this level of low density (many local governments, as you will see, zone for residential density as low as one dwelling unit for ten acres or more), homes for Michigan’s current population of 10,050,446 (2002 census) would have already fragmented 1/3 of all the 37 million acres of land in the state, leaving little to support farming, recreation, or other land-based economic activity or public services.

The average density of "sprawl" nationally is three households per residential acre. The following definitions from the San Francisco League of Conservation Voters may be useful in trying to understand what density looks like in the real world.<sup>21</sup>

### Typical densities in many parts of the country

- *One Household/Residential Acre* – Very low-density single-family, “sprawl.”
- *Three Households/Residential Acre* – Typical of single-family dwellings in “sprawl.”
- *Ten Households/Residential Acre* – Row houses with occasional single-family dwellings and apartment houses. Examples: lower density areas of larger cities, and older suburbs.
- *100 Households/Residential Acre* - Mostly three- to five-story apartment houses with occasional mid- to high-rises and single-family dwellings in compact neighborhoods throughout the country.
- *500 Households/Residential Acre* - Mostly mid- to high-rises. Examples: the Upper East and West Sides in Manhattan, and smaller neighborhoods in Chicago, San Francisco and elsewhere.

### *Tools for Talking About Density*

Compact development, when used effectively as part of an overall community design, saves land for preservation as creeks, wildlife corridors and parks, while promoting more convenience, accessibility and ease of use for all people. Good design is critical for more compact density to be popular with homebuyers.

#### 1. Five characteristics of well-planned higher-density development

- Small residential lot sizes
- Mixed uses: business, retail, and residential
- Mixed income housing
- Access to mass transit
- Planned greenspaces

#### 2. Five specific types of compact development

- Small lot, single-family homes
- Duplexes
- Rowhomes
- Townhouses
- Apartments

---

<sup>21</sup> San Francisco League of Conservation Voters website: <http://www.sflcv.org/density/>

### 3. Ten reasons well-designed high-density development is a good idea

- Reduced household transportation costs
- Convenient working, shopping, schools, recreation
- Reduced costs for services like fire, police, and emergency care
- Added amenities like parks and recreation activities
- A range of housing choices
- Reduced air and water pollution
- Reduced commutes; more time at home
- More transportation choices, including walking and transit
- Saved land, protected agriculture and tourism
- Housing is more useable throughout life (children to elderly)

## Appendix B: Homebuyer Preferences

### *Focus Group Composition*

	<b>Total</b>	<b>Detroit area</b>	<b>Grand Rapids area</b>
<b>Total</b>	<b>32</b>	<b>16</b>	<b>16</b>
Male	16	8	8
Female	16	8	8
White	25	11	14
Black	7	5	2
<30 years old	13	5	8
30-44	17	10	7
45-59	2	1	1
60+	--	--	--
Some college/tech	19	9	10
College grad	12	6	6
Post grad	1	1	--
\$0-29K	10	4	6
\$30K-50K	16	9	7
\$51K-74K	4	2	2
\$75K-\$100K	--	--	--
\$100K+	2	1	1
Republican	6	2	4
Democrat	14	6	8
Independent	12	8	4
Very liberal	3	2	1
Somewhat liberal	6	3	3
Moderate	14	5	9
Somewhat conservative	7	5	2
Very conservative	2	1	1

## Appendix B: Homebuyer Preferences

### *Descriptions for Focus Groups*

#### DEVELOPMENT A

- Choice of a medium to large house
- Built on a lot of between one-quarter to one-acre, in a community of similar houses
- Built on land far from the city, purchased from farmers
- Must drive to stores and restaurants. Main shopping area is a mall, a 30 minute drive
- No sidewalks, streets are wide
- Can drive to a nearby park and must drive to school
- Takes longer to get to work
- Big spacious yard
- Most streets have *cul de sacs*
- Community of people of similar backgrounds and income levels
- Can drive to public transportation
- Neighbors are not close-by

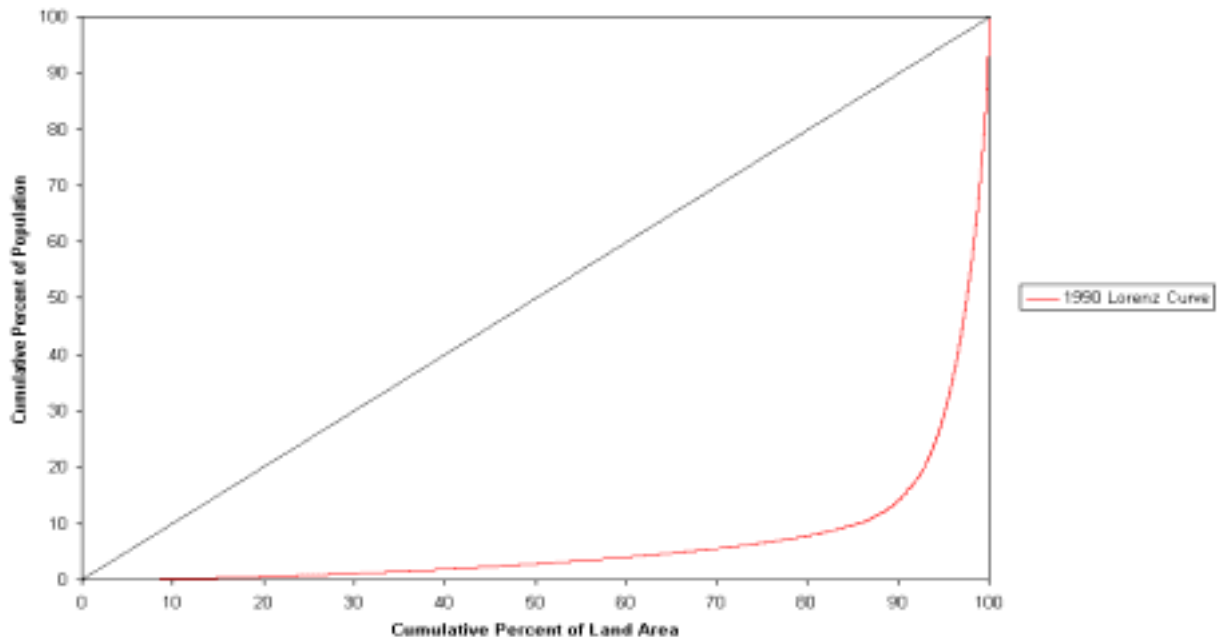
#### DEVELOPMENT B

- Choice of small, medium, or large sized house, apartment, duplex, townhouse or row house
- Built on smaller sized lots in a community of various types of houses and apartments
- Built on land in an urban area, in a small town or in an older suburb of a city
- Stores and restaurants within walking distance of houses
- Sidewalks and streets are narrow
- Children can ride bikes to school, to a nearby park, and to neighbors' houses
- Takes less time to get to work
- Small or no yard
- No cul de sacs
- Diverse community with people of different backgrounds and income levels
- Public transportation within walking distance
- Farmland and other natural areas that are home to wildlife in countryside are preserved

## Appendix C: Township Sample

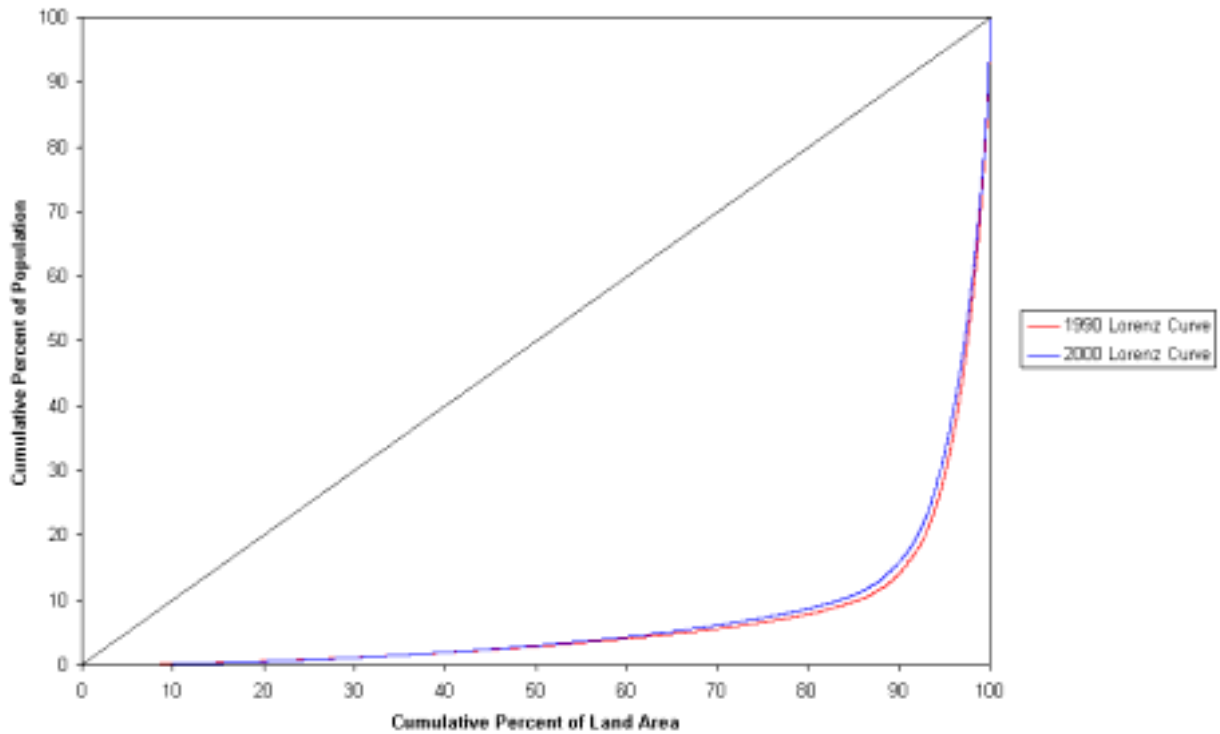
### *Methodology for Choosing 80 Townships*

A sprawl index was used to locate the top 80 sprawling townships. The index derived by examining the distribution of population over a specified land area based on a Gini Ratio analysis. Figure 3 below shows the 1990 Lorenz Curve for Ingham County, Michigan. Notice that approximately 10 percent of the population occupies 30 percent of the land. The corresponding Gini Ratio for Ingham County is .868. This means that Ingham County's population is fairly unevenly distributed across the land area, meaning there are desirable concentrations of higher density in the county, with other areas having lower densities.



**Figure 3. Ingham County 1990 Lorenz Curve; basis for Gini Ratio analysis**

This information is calculated by comparing the 1990 Gini Ratio of Michigan counties to their 2000 Gini Ratios. If the 2000 Gini ratio is smaller than the 1990 Gini (meaning the population is now distributed more evenly across the county's land area), then we say the county has sprawled. If the opposite is true (meaning the county's population is less evenly distributed) than we say the county has concentrated. For example, Figure 4 below shows both the 1990 and 2000 Lorenz curves for Ingham County. Notice that the 2000 curve is closer to the line of equality, meaning the population is more evenly distributed and thus has a smaller Gini ratio. In fact, this 2000 ratio of .857 is less than the 1990 ratio of .868, meaning Ingham County has sprawled and become more homogeneous in density.



**Figure 4. Ingham County 1990 and 2000 Lorenz Curves; a comparison**

The sprawl measure was calculated by subtracting the county's 2000 Gini Ratio from its 1990 Gini Ratio, and then multiplying that number by 100 (for clarity). A positive sprawl measure means the county has sprawled, a negative sprawl measure means it has concentrated. Ingham County's sprawl measure is 1.03.

The sprawl measure indicates which of three potential scenarios has occurred. The region's less densely populated areas have increased in density so that they are the same density as the more densely populated areas, the higher density areas have decreased in density to match the lower density areas, or a combination of both has occurred.

## Appendix C: Township Sample

### Questions Administered to Township Officials

1. What is your name and title?
2. How long have you held your current position?
3. How long have you lived in your current township?
4. Does your township use zoning ordinances?
5. If not, is your community subject to county zoning?
6. Please provide a list of the types of zoning and/or ordinances in place in your community, including limitations and restrictions (10-acre residential plots, industrial, cluster zoning, etc.). For what size are you zoning lots in the various residential areas? (Encouraged to provide attachment)
7. In which year were your zoning ordinances established?
8. When was the last time zoning was changed/updated in your community (month/year):
9. Why was this change made?
10. What are the goals of your planning and zoning? (check all that apply)
  - promote economic development
  - to preserve rural character
  - to protect agricultural areas
  - to make the community more attractive for residents
11. a. What do you consider to be a “large lot size”:  
b. What do you think the term “high density housing” means:

For each of the following questions, please indicate if you strongly agree, somewhat agree, somewhat disagree or strongly disagree:

12. Homebuyers are opposed to living in densely populated areas.  
*strongly agree    somewhat agree    somewhat disagree    strongly disagree*
13. The monetary benefits of developing dense housing communities are greater than those of developing “large lot” communities.  
*strongly agree    somewhat agree    somewhat disagree    strongly disagree*
14. Current community regulations and zoning in the area where you live encourage dense developments.  
*strongly agree    somewhat agree    somewhat disagree    strongly disagree*
15. Developers can make a profit developing dense communities.  
*strongly agree    somewhat agree    somewhat disagree    strongly disagree*
16. It is much easier to secure funding for development projects composed of primarily large lots (as opposed to projects composed of a dense development).  
*strongly agree    somewhat agree    somewhat disagree    strongly disagree*
17. The capital costs associated with dense housing developments are lower than those of low density developments.  
*strongly agree    somewhat agree    somewhat disagree    strongly disagree*

18. The public will not want to buy housing options with lots sizes smaller than \_\_\_  
[FILL IN]
19. When you hear the term “suburban sprawl,” do you generally think of it as describing something good, something bad, or something both good and bad?

Please indicate if suburban sprawl has a positive effect, a negative effect, or no effect on each of the following:

- |                      |                        |                        |                  |
|----------------------|------------------------|------------------------|------------------|
| 20. Taxes:           | <i>positive effect</i> | <i>negative effect</i> | <i>no effect</i> |
| 21. Quality of life: | <i>positive effect</i> | <i>negative effect</i> | <i>no effect</i> |
| 22. Pollution:       | <i>positive effect</i> | <i>negative effect</i> | <i>no effect</i> |
| 23. Traffic:         | <i>positive effect</i> | <i>negative effect</i> | <i>no effect</i> |
| 24. Open spaces:     | <i>positive effect</i> | <i>negative effect</i> | <i>no effect</i> |

25. What is the population of your township:
26. Which of these characteristics best describes the dominant land use in your township/county?
- Agricultural/farmland
  - Forest
  - Suburban/developed
  - Urbanized
  - Other (Please specify) \_\_\_\_\_
27. Would you say that vehicle traffic in your township is:
- Heavy
  - Moderate
  - Light
  - Little or no traffic
28. Would you say that currently, people are moving OUT OF or INTO your township, or is the population NOT CHANGING much?
29. Would you say that in your township/county:
- Most workers commute to jobs in the township from outside the community.
  - Most worker commute out to jobs outside the township.
  - Most workers both live and work inside the township.
  - Other (explain)\_\_\_\_\_
30. Please estimate what percentage of the population of your township is:
- Under 35:
- 35-44:
- 45-60:
- Older than 60:
31. Twenty years from now, what percentage of the population in your township will be:
- Under 35:
- 35-44:
- 45-60:
- Older than 60:

## Appendix C: Township Sample

### Characteristics and Lot Sizes

Township	County	Lowest Density Zoning District Allowing Residential Building	Minimum lot size in lowest density zone (in acres)	2000 Population	1990 Population	10-year Percent Change
1	Grand Traverse	AG	5	4,332	3,447	26
2	Van Buren	AG	5	4,226	3,581	18
3	Genesee	A/R	3	7,257	5,551	31
4	Charlevoix	AG	2	1,068	825	30
5	Oceana	AG	2.5	1,520	1,133	34
6	Mecosta	AG	1	3,249	3,100	5
7	Jackson	AG	2	22,800	20,492	11
8	Grand Traverse	AG	5	6,448	5,249	23
9	St. Clair	R	2	4,747	4,552	4
10	Charlevoix	Rural Residential	10	1,697	1,016	67
11	Van Buren	AG	10	2,714	2,552	6
12	Jackson	AG	no minimum	7,234	6,308	15
13	St. Clair	AG	5	3,814	3,301	16
14	Van Buren	AG	5	3,141	2,855	10
15	Grand Traverse	R	0.92	9,919	8,307	19
16	Charlevoix	R	10	1,560	1,100	42
17	Genesee	AG	2	12,968	10,055	29
18	Genesee	R	0.456	33,691	34,081	-1
19	St. Clair	A/R	2	10,691	8,968	19
20	Grand Traverse	R	1	13,840	10,516	32
21	Livingston	AG	10	15,901	10,820	47
22	St. Clair	A/R	2	1,667	1,210	38
23	Jackson	AG	2	4,586	3,774	22
24	Grand Traverse	A/R	5	5,009	3,677	36
25	St. Clair	R	5	1,373	1,037	32
26	Livingston	A/R	0.8	7,004	5,488	28

27	Oceana	A/R	1.38	2,026	1,513	34
28	Charlevoix	R	2	1,893	1,317	44
29	Livingston	R	2	5,679	4,298	32
30	Livingston	A/R	2	3,039	1,567	94
31	St. Clair	Rural	0.165	6,966	5,587	25
32	Van Buren	R	1.14	3,341	3,030	10
33	Jackson	AG	1	2,903	2,452	18
34	Emmet	AG	4.13	2,426	1,805	34
35	Charlevoix	R	2	1,492	1,130	32
36	Charlevoix	AG	10	1,388	1,106	26
37	Grand Traverse	AG	5	5,265	4,340	21
38	Van Buren	R	2	2,773	2,594	7
39	St. Clair	R		8,615	7,621	13
40	St. Clair	A/R	2	3,046	2,154	41
41	Jackson	AG	2.5	3,801	3,300	15
42	St. Clair	Rural	4	6,423	4,614	39
43	Van Buren	A/R	3	4,046	4,185	3
44	Jackson	AG	2	21,534	21,130	2
45	Livingston	AG	2	8,459	6,854	23
46	Livingston	R	2	3,190	2,949	8
47	St. Clair	A/R	10	2,986	2,294	30
48	Cheboygan	AG	2	472	371	27

AG= Agricultural    R= Residential    A/R = Combined agricultural and residential

## Appendix C: Township Sample

### *Approach to Farmland Protection*

<b>Township</b>	<b>County</b>	<b>Goal: to Protect Rural Character</b>	<b>Goal: to Protect Agricultural Areas</b>	<b>Offers Hrybrid "A/R" District</b>	<b>Farmland Change in County 1987-1997</b>
1	Grand Traverse				-5022
2	Van Buren			x	-29421
3	Genesee	x		x	-19114
4	Charlevoix	x	x		-9960
5	Oceana				-1089
6	Mecosta				-9179
7	Jackson		x	x	-29351
8	Grand Traverse			x	-5022
9	St. Clair	x			-18682
10	Charlevoix	x	x		-9960
11	Van Buren				-29421
12	Jackson				-29351
13	St. Clair				-18682
14	Van Buren				
15	Grand Traverse				-5022
16	Charlevoix	x	x	x	-9960
17	Genesee	x	x		-19114
18	Genesee	x	x		-19114
19	St. Clair		x	x	-18682
20	Grand Traverse			x	-5022
21	Livingston	x	x	x	-20467
22	St. Clair		x	x	-18682
23	Jackson	x	x	x	-29351

24	Grand Traverse	x		x	-5022
25	St. Clair				-18682
26	Livingston			x	-20467
27	Oceana	x	x	x	-1089
28	Charlevoix				-9960
29	Livingston	x	x	x	-20467
30	Livingston	x		x	-20467
31	St. Clair			x	-18682
32	Van Buren			x	-29421
33	Jackson	x			-29351
34	Emmet	x	x		-250
35	Charlevoix	x		x	-9960
36	Charlevoix	x	x		-9960
37	Grand Traverse				-5022
38	Van Buren				-29421
39	St. Clair				-18682
40	St. Clair			x	-18682
41	Jackson	x	x		-29351
42	St. Clair				-18682
43	Van Buren			x	-29421
44	Jackson				-29351
45	Livingston				-20467
46	Livingston				-20467
47	St. Clair			x	-18682
48	Cheboygan				9711

## Appendix C: Township Sample

### Perceptions of Lot Size Impacts

Township	County	Consider Large Lots to be (acres):	Homebuyers are opposed to High Density?	Homebuyers will not buy lots smaller than:	Predominant Land Use in Township
1	Grand Traverse				
2	Van Buren				
3	Genesee	10	strongly agree	1	developed rural large lots
4	Charlevoix	2	strongly disagree		suburban/developed
5	Oceana	10	strongly agree	2.5	agricultural/farmland
6	Mecosta				
7	Jackson	2	strongly agree	0.23	suburban developed
8	Grand Traverse				
9	St. Clair	10	strongly agree	1 acre	zoned for ag, used for res.
10	Charlevoix	2	disagree	0.34	forest and farms
11	Van Buren				
12	Jackson	20	disagree	0.18	suburban developed
13	St. Clair				
14	Van Buren				
15	Grand Traverse				
16	Charlevoix	0.5	agree	0.5	agriculture, single-family res
17	Genesee	1	somewhate agree	0.16	suburban developed
18	Genesee	0.456	agree	0.14	suburban/urbanized
19	St. Clair	0.69	disagree	0.17	suburban developed
20	Grand Traverse				
21	Livingston	5	somewhate agree	0.25	residential developed
22	St. Clair	10	somewhat agree	2	50 ag/50 res

23	Jackson	10	somewhat agree	0.34	agricultural/farmland
24	Grand Traverse	5	somewhat disagree	0.25	forest, suburban developed
25	St. Clair				
26	Livingston				
27	Oceana	0.06	somewhat disagree	0.23	
28	Charlevoix				
29	Livingston		strongly disagree "they like it"	0.5	agricultural/farmland
30	Livingston	2	somewhat disagree	0.5	agricultural/residential
31	St. Clair				
32	Van Buren				
33	Jackson	150	somewhat agree	0.98	urbanized
34	Emmet	2	strongly disagree		suburban/developed
35	Charlevoix		disagree	1	agricultural/suburban
36	Charlevoix	10	strongly disagree		suburban/developed
37	Grand Traverse				
38	Van Buren				
39	St. Clair	0.456	somewhat agree		suburban/developed
40	St. Clair	10			agricultural/residential
41	Jackson	2.5	strongly agree	1	agricultural farmland
42	St. Clair				
43	Van Buren				
44	Jackson	2	somewhat disagree	0.23	suburban/developed
45	Livingston	20	agree	0.25	suburban/developed
46	Livingston				
47	St. Clair				
48	Cheboygan				

## Appendix C: Township Sample

### Perceptions of Urban Sprawl

Township	County	Effect on Taxes	Effect on Quality of Life	Effect on Pollution	Effect on Traffic	Effect on Open Spaces	Traffic Status	People are moving:	Most people commute out of township
1	Grand Traverse								
2	Van Buren								
3	Genesee	neg	Strong neg	Strong neg	neg	neg	light	into	yes
4	Charlevoix	neg	neg	neg	neg	neg	light	into	yes
5	Oceana	pos	pos	neg	neg	pos	light	into	yes
6	Mecosta								
7	Jackson	pos	pos	neg	neg	none	heavy	into	no
8	Grand Traverse								
9	St. Clair	pos	neg	neg	neg	neg	moderate	no change	yes (ave 35 min travel)
10	Charlevoix	pos	pos	none	neg	none	moderate	in	no
11	Van Buren								
12	Jackson	neg	pos	n/a	neg	neg	heavy to moderate	into	yes
13	St. Clair								
14	Van Buren								
15	Grand Traverse								
16	Charlevoix	none	neg	neg	neg	neg	Light to moderate	no change	yes
17	Genesee	pos	neg	neg	neg	neg	moderate	into	yes
18	Genesee	neg	non	non	neg	neg	heavy	into	no
19	St. Clair	pos	neg	pos	neg	pos	heavy	into	yes
20	Grand Traverse								
21	Livingston	pos	neg	neg	neg	neg	Heavy/light (depending)	into	yes

22	St. Clair	neg	pos	neg	neg	neg	heavy/mode rate	into	yes
23	Jackson	neg	pos	pos	neg	neg	moderate	into	yes
24	Grand Traverse	neg	neg	neg	neg	neg	moderate	into	yes
25	St. Clair								
26	Livingston								
27	Oceana								
28	Charlevoix								
29	Livingston	neg	neg	neg	neg	neg	moderate	into	yes
30	Livingston	none	none	none	none	depends	moderate	into	yes
31	St. Clair								
32	Van Buren								
33	Jackson	pos	pos	none	neg	pos (2 acre+ lots)	light	into	no
34	Emmet	neg	neg	neg	neg	neg	light	into	yes
35	Charlevoix	pos	neg	neg	neg	neg	heavy	into	yes
36	Charlevoix	neg	neg	neg	neg	neg	light	into	yes
37	Grand Traverse								
38	Van Buren								
39	St. Clair	pos					moderate	into	no
40	St. Clair	neg	neg	neg	neg	neg	moderate	into	yes
41	Jackson	pos	none	neg	neg	neg	moderate, increasing	into	yes
42	St. Clair								
43	Van Buren								
44	Jackson	pos	pos	none	neg	neg	moderate	into	yes
45	Livingston	neg	neg	neg	neg	pos/neg	heavy	into	yes
46	Livingston								
47	St. Clair								
48	Cheboygan								

## Appendix D: Homebuilder Sample

### Questions Administered to Builders

1. How many people does your company employ?
3. How many development projects does your company do each year on average?
4. What type(s) of properties do you develop? (*Please check all that apply*)

- Residential
- Commercial
- Other (*Please Specify*)

4. If residential, are the majority of your development projects:
  - Single Family Homes
  - Duplexes
  - Apartment Buildings
  - Condominiums
  - Townhouses
  - Other (*Please specify*)

9. What do you think the term “high density housing” means?

10. How important do you think each of the following characteristics are to homebuyers?

	Very important	Somewhat important	A little important	Not very important	Don't know/NA
5. Housing Choice	1	2	3	4	5
6. A Large Lot	1	2	3	4	5
7. Convenient to Amenities	1	2	3	4	5
8. Close to Open Space	1	2	3	4	5

10. Does your company develop high density housing?
11. If yes, are you building more or less high density housing than you were 10 years ago?
12. If you had a choice between developing a residential community of 7 houses/acre and a residential community of 3 houses/acre, which would you choose?
13. Why?
14. Which development plan do you consider to be more profitable?

For each of the following questions, please indicate if you strongly agree, somewhat agree, somewhat disagree or strongly disagree.

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
15. Homebuyers are <i>usually</i> opposed to living in densely populated areas .....	1	2	3	4
16. The monetary benefits of developing dense housing communities are <i>usually</i> greater than				

those of developing "large lot" communities.....	1	2	3	4
17. Current community regulations and zoning in the area where you live encourage dense developments .....	1	2	3	4
18. Developers can make a profit developing dense communities .....	1	2	3	4
19. It is much easier to secure funding for development projects composed of primarily large lots (as opposed to projects composed of a dense development) .....	1	2	3	4
20. The capital costs associated with dense housing developments are lower than that of low density developments. ....	1	2	3	4
21. The public will not want to buy housing options with lot sizes smaller than _____ (FILL IN). ....	1	2	3	4

22. Do you think the term "suburban sprawl" generally describes something good, bad or both?

23. Please indicate whether suburban sprawl has a positive, negative, or no effect on:

	Positive Effect	No Effect	Negative Effect
24. Taxes	1	2	3
25. Quality of Life	1	2	3
26. Pollution	1	2	3
27. Traffic	1	2	3
28. Open Spaces	1	2	3

## Appendix D: Homebuilder Sample

### Results

Builder	Employees	Number of projects/year	Type of Construction	Additional types	High density is:	Do you develop high density?	Type you Prefer to build	Lot size that is more profitable	Why?
1	1	0	Residential	Single Family	Projects	No	7	7	Gas
2	3	2	Residential	Single, Townhouses	10+/acre	N/A	N/A	N/A	N/A
3	3	1	Residential	Single Family	5 houses/acre; 15-20 condos/acre	Yes	3/acre	3/acre	Easier to sell
4	2	Less than 1	Residential, commercial	Single	single family housing 4-6 per acre, attached housing 8-12 per acre	Yes	7/acre	N/A	N/A
5	60	4-5 homes	Residential, commercial	Apartment	higher than standard single family suburbs	Yes	7/acre	7/acre	More density allows more homes to be sold at a more affordable price and they sell faster
6	12	0	N/A	N/A	N/A	No	3/acre	3/acre	Yes, depending on where land cost more than most houses
7	90-100	3	Residential	Single family, condos	6-10 units to the net acre. Homes can either be attached or detached from from 1000 sqf to 1500 sqf	Yes	7/acre	7/acre	infrastructure costs, i.e. sewer, water, storm, roads are less as density increases
8	17	Contract only	none (not "development")	none (not "development")	minimum densities of 3-4 units/acre. Depends of course on location, availability of sewer and water, etc.	N/A	N/A	N/A	N/A
9	50	60	Residential	30 single family; 30 condos	10 units/acre	N/A	N/A	N/A	N/A
10	3	1	Residential	single family	4-5 living units per acre or more		N/A	N/A	N/A

11	5	7	Residential	single family	houses with very little yards and privacy or cluster building	no	7/acre	7/acre	more property to average road costs
12	3	0	Residential	single family	getting maximum allowable single family homes per acre		N/A	N/A	N/A
13	28	3	Residential	Single family, condos	8 + units per acre				
14	42	6	Residential	condos	close knit community	Yes	7/acre	high density	better land use

Builder	Homebuyers are opposed to high density?	Monetary benefit	Zoning encourages density	Profit	Funding	Costs	Homebuyers will not want to buy?
1	2	1	3	2	2	2	100-150?
2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	2	1	4	1	3	1	1/4 acre
4	3	2	4	1	3	2	7500 sq foot
5	3	2	4	1	4	3	50 foot
6	2	2	3	N/A	2	3	
7	3	1	4	1	3	1	60 x 150?
8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	N/An	N/A	N/A	N/A	N/A	N/A	N/A
11	2	2	2	1	3	2	1/acre
12	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13							
14	3	1	4	1	1	1	2

Builder	Is Sprawl Good or Bad?	Effect on Taxes	Effect on Quality of Life	Effect on Pollution	Effect on Traffic	Effect on open space
1	both	2	1	3	3	3
2	both	1 (for homeowner)	1*	3	3	1
3	bad	3	2	3	3	2
4	bad	3	Positive for families, negative for farms and farmers	3	3	3
5	both	3	3	3	3	3
6	both	3	1	3	3	2
7	both	2	1	1	3	2
8	both	1	2	3	3	3
9	bad	1	1	2	2	3
10	both	3	2	3	3	3
11	good	1	1	2	1	1
12	both	3	2	3	3	3
13	bad	1	2	3	3	3
14	both	3	3	3	3	3

## Acknowledgements

Led by the Michigan Environmental Council in partnership with the Michigan Association of REALTORS®, this study was funded by People And Land, a project of the W.K. Kellogg Foundation. The Michigan Environmental Council extends its sincere gratitude to all involved in this program for their ongoing support of land use education, outreach and research.

### Project Steering Committee

- Bill Anderson, Michigan Townships Association ([bill@michigantownships.org](mailto:bill@michigantownships.org))
- David Downey, Michigan Society of Planning ([ddowney@planningmi.org](mailto:ddowney@planningmi.org))
- Kelly Dunn, Michigan Municipal League ([kdunn@mml.org](mailto:kdunn@mml.org))
- Jerry Griffin, Michigan Association of Counties ([griffin@micounties.org](mailto:griffin@micounties.org))
- Kurt Norgaard, Michigan Farmland and Community Alliance ([kurtnorgaard@voyager.net](mailto:kurtnorgaard@voyager.net))
- Lee Schwartz, Michigan Association of Home Builders ([schwartz.lee@mahb.com](mailto:schwartz.lee@mahb.com))
- Stacy Sheridan, Rural Partners of Michigan ([stacy@ruralmichigan.org](mailto:stacy@ruralmichigan.org))
- Conan Smith, Michigan Environmental Council ([conansmith@michigansa.org](mailto:conansmith@michigansa.org))
- Brad Ward, Michigan Association of REALTORS® ([bward@mirealtors.com](mailto:bward@mirealtors.com))

### Authors

Brad Garmon, Justin Weiner and Conan Smith, Michigan Environmental Council

### Survey of Township Officials

Justin Weiner and Benjamin Stupka, Michigan Environmental Council

### Township Classification Using a Sprawl Index

Steven Luck, Michigan Environmental Council intern

### Focus Group of Prospective Home Buyers

Belden Russonello & Stewart, May 2003. For more information: [www.brspoll.com](http://www.brspoll.com)