Planning at the Edge:
Planning Capacity, Growth Pressure, and Growth Management at the Urban Fringe

by

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To my family, with love and gratitude

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Chapter 1

Introduction

This is a snapshot of the typical southeast Michigan township on the eve of its first big development: working farms mixed with fallow fields already owned by speculators; some large lot residential development off the long, straight "mile roads;"[1] an abandoned schoolhouse closed when several districts consolidated; woodlands, wetlands, and streams; a gas station with convenience store and some small local businesses at a major crossroads or freeway interchange; a light industrial use or two housed in a pole barn; and a sand and gravel mining operation. With mostly flat topography and no obvious visual order it is in some ways a forgettable landscape.

Figure 1.1: Advertisement for large lot development in Hadley Township, Michigan

[1] Mile roads run east-west every mile going north from the intersection of Woodward and Michigan Avenues in Detroit. Eight Mile Road is a well-known boundary between the City of Detroit and its suburbs. The townships that are now being developed are around 26 Mile Road.

A developer brings a site plan to the planning commission for a 90-unit subdivision in an area zoned for agriculture. Farmers, environmentalists, and neighbors in the community rise up in protest, decrying the loss of the area's rural character. Other farmers and landowners welcome the development, which could increase demand for their nearby land. Although the township's master plan goals call for "preserving rural character, its future land use map designates the area for low density residential. Since the site plan fits within the recommended density guidelines, the project is approved and the subdivision is built. More site plans are soon on their way. The community has followed its master plan, in part, yet people are frustrated by the coming wave of development. Does the problem lie with the master plan, the realities of real estate development, or conflicting attitudes in the community itself?

Since much of the growth in Southeast Michigan is occurring at the suburban fringe, and most of the local governments at the fringe are civil townships rather than cities, these limited governmental entities are at the front lines of Southeast Michigan's growth and land development. The state entrusts them with carrying out the planning process: conducting visioning sessions, generating master plans, translating the goals and objectives into ordinances, and enforcing those ordinances. There are multiple opportunities within these planning steps for the process to break down and cause disconnects between goals and land use outcomes. These townships, which have fewer powers and fewer service provision responsibilities than cities, conduct their planning with varying degrees of professionalism and levels of resources, and they are affected by varying levels of growth pressure. This dissertation seeks to evaluate the integrity of the local planning process in the context of calls for growth management at the local level.

Research Question and Hypotheses

The research question this dissertation addresses is: how do township planners and officials use plans and the planning process to manage growth? This study also investigates what kinds of land use outcomes are occurring, and what explains those outcomes. Some communities say they want to limit growth; others wish to accommodate as much development as possible. Their development outcomes should be different, but it is not clear that this is the case. In fact, it seems that most townships in Southeast Michigan have similar, very land-consumptive, development patterns. To study this question, I will pursue three objectives: investigate how the local government land use decision-making process works in practice, investigate how master plan goals get translated (or do not) into land use outcomes, and evaluate how the preceding two areas of inquiry vary with planning capacity and growth pressure.

The general belief about how the local land use planning process works is that citizens and elected officials together generate a vision for the community's future. Planners and planning commissioners create a future land use map that will carry out this vision. They implement the plan through changes to the zoning ordinance. The planning commission makes recommendations to the township board about rezoning land and approving site plans to meet the letter of the zoning ordinance and the intent of the master plan. However, we do not know exactly how this process works in practice or what the true role of the plan is in land use decision making. It may be an integral part of the process that officials consult on a daily basis, or it may be updated and put on a shelf until the next update, leaving land use decisions up to ad hoc judgments by the planning commission.

To investigate the research question, this dissertation will test two hypotheses. First, I hypothesize that conformance between landscape outcomes and land use plan goals, policies, and future land use maps increases with planning capacity. Planning capacity refers to the amount of professional and budgetary resources that are available to carry out the planning process, and the degree of sophistication with which the process is carried out. At a higher level of sophistication, officials might have a less laissez-faire attitude toward land use. For example, they might be more concerned about their ability to defend land use decisions in court. Land use decisions might face increased scrutiny from a better-organized and more politically sophisticated public. If the community has a staff planner, that person might have a bigger stake in plan implementation and/or a stronger position from which to make recommendations to the planning commission.

Second, I hypothesize that conformance between landscape outcomes and land use plan goals, policies, and future land use maps decreases with growth pressure (Brody & Highfield, 2005). Townships might get overwhelmed and out-matched by developers with larger resources. Over the years, the zoning ordinance might not have been amended to reflect more current planning goals, so the township ends up accommodating a great deal of growth all at once.

Nonconformance between the master plan and land use outcomes could occur for one of four reasons, or a combination thereof. The township board, guided by the planning commission, may be actively approving projects that do not follow the intent of the master plan, making ad hoc decisions each time. The planning commission may not have a conformance-based view of the master plan: some plans are very explicit about this, even using an impressionistic look for the future land use map. The master plan may

be vague or contradictory, making it impossible for anyone (including the planning commission) to interpret its recommendations to make decisions. For example, a plan may contain goals relating to both growth management and growth promotion, thereby ensuring that either strategy would contradict the plan. Finally, the master plan may not have been implemented in the zoning ordinance. By following the existing zoning ordinance, the planning commission would then be refuting the master plan.

To test the two hypotheses, I evaluate the planning process from visioning to implementation in each of four townships, paying particular attention to the use of the master plan. The townships are selected to vary as widely as possible in terms of planning capacity and growth pressure. I also conduct a detailed analysis of existing land use in comparison with the township's future land use map to see where there are differences between the two.

Problem Statement

There is a well-established literature on plan quality and plan evaluation that considers the level of sophistication of the plan, the clarity of its goals and implementation steps, and its consistency with mandates and plans at other levels of government (Berke & French, 1994; Brody, 2003a, 2003b; Burby, 2003; Burby & May, 1997; Norton, 2005a, 2005b; Pendall, 2001). This literature, while valuable, does not tell us directly how plan provisions are translated into ordinances and what the effects of those ordinances are, and often infers the relationship between master plan goals, future land use maps, and outcomes (Brody & Highfield, 2005). Without knowing these impacts, it is impossible to judge the efficacy of the plan. In addition, although planning

commissions make front line land use decisions in most states, they are little studied (Norton, 2008).

There has also been quite a bit written, both from an empirical and a normative standpoint, on various approaches to the planning process (Healey, 1992; Innes, 1996; Wondolleck & Yaffee, 2000). Over the past ten years or so this literature has focused on the collaborative model of planning, where the decision-making ideal is consensus-building among stakeholder groups. The collaborative model is now taught in planning schools and held up as the ideal for planning practice. This planning model may look very different, however, in situations where stakeholder input is undervalued or unavailable and where consensus may not be the goal. The reality of the planning process may differ from the ideal as it is translated into local land use planning when many of those carrying out the process are not planners. In addition, the effects of the two axes along which the cases in this dissertation vary, growth pressure and planning capacity, on the planning process (including the behavior of planners and planning officials) and plan conformance, have not been explicitly studied.

As Talen (1996a, 1996b) describes, much has been written about implementation, but it is tremendously difficult to follow the process from start to finish. Since her article, there have been a number of articles linking plans and zoning ordinances with land use outcomes (Brody & Highfield, 2005; Talen & Knaap, 2003), but there has still been very little examination of the day-to-day work of how planners and planning commissions use plans. Looking at the plan and the outcome is useful, but our understanding of the implementation process is incomplete until we thoroughly analyze the intermediate step of plan use. Given the complexity of the planning process, and the difficulty, if not

impossibility, of setting up a controlled experiment in planning, a case study approach is well-suited to this undertaking (R. K. Yin, 1994).

In a practical sense, understanding how planning is influenced by capacity and growth pressure is important because planning is implicated in the outward march of development. For example, the Detroit area combines a barely growing metropolitan population with ballooning exurban development.[2] While at the periphery farms and natural areas are cleared for new development, entire central city neighborhoods lie abandoned and inner-ring suburbs' property values fall. The concurrent presence in many township plans of goals relating to preserving rural character, agriculture, and natural features suggests that at the very least, many township governments are conflicted about what they should be planning for.

This dissertation, then, will constitute a rigorous, detailed study of the contemporary planning process by civil townships in Michigan as it is affected by planning capacity and growth pressure, and as it affects land use outcomes. This study will demonstrate areas where the planning process breaks down, and the causes of such breakdowns. The results of this study should be applicable to many local governments throughout the east and Midwest, where local control of planning is the norm. In many cases, these communities contend with strong development pressure and resource constraints, just as the townships in this study do. Identifying and explaining disconnects in the process will help to focus attention on the areas where increasing resources would generate the most impact, and where efforts need to be made to keep the process from derailing.

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[2] In the seven-county SEMCOG area, between 1990 and 2000 developed land increased by 17% while population only increased by 5% (SEMCOG, 2003).

Background

In this study I investigate the relationship between planning capacity, growth pressure, and plan conformance. These variables emerge out of theoretical debates among planning scholars, some recent and some ongoing for decades.

Conformance and Performance

The question of what plans do is embodied in the debate between conformance and performance-based approaches to evaluating plans. Wildavsky (1973) contended that the purpose of planning was to control the future; to the extent to which it failed to control the future, planning failed. This idea came to be called a conformance-based view of planning. Alexander and Faludi (1989) argued for what they called a performance-based approach, because planning, like other public policy, is an evolving process that takes place in an environment of uncertainty. Outcomes cannot be expected to have a one-to-one relationship with plans (Mastop & Faludi, 1997). In certain cases, if the plan is consulted as part of the decision-making process, it is being implemented. Others have since argued for a more middle-of-the-road approach (Brody & Highfield, 2005; Talen, 1996b) that accounts for response to changing conditions and new information.

Although it is true that plans may be mutable and implementation may be uneven, in this study, I will evaluate plans with an approach based more closely on conformance than performance. There are two reasons for this. First, based on my experiences of planning processes as a professional planner, and my interviews with township officials, I believe that most of the participants in the process take the view that the master plan is closer to a blueprint than to a general set of guidelines, although they may initially say otherwise. For instance, this view explains the level of intensity with which community

residents often approach the visioning process: they believe that the master plan will directly affect the land use potential of their property and that of their neighbors'. I will test this idea through my qualitative interview research. The second reason to take a more conformance-based position when evaluating plans is that the courts often do so when handing down decisions in land use cases. Communities that adopt plans and follow them when making land use decisions are generally better able to defend themselves against litigation than those who have not adopted plans or who follow them only when convenient.[3]

[3] In Raabe v. City of Walker, the Michigan Supreme Court held that "the absence of a formally adopted municipal plan, whether mandated by statute or not, does not, of course, invalidate municipal zoning or rezoning. But it does, as in Biske, supra., weaken substantially the well known presumption which, ordinarily, attends any regular-on-its-face municipal zoning ordinance or amendment thereof." 174 N.W.2d at 796. In other words, zoning decisions not supported by an adopted master plan do not enjoy the same "presumption of validity" that zoning decisions based on a master plan do (Judkins, 1990).

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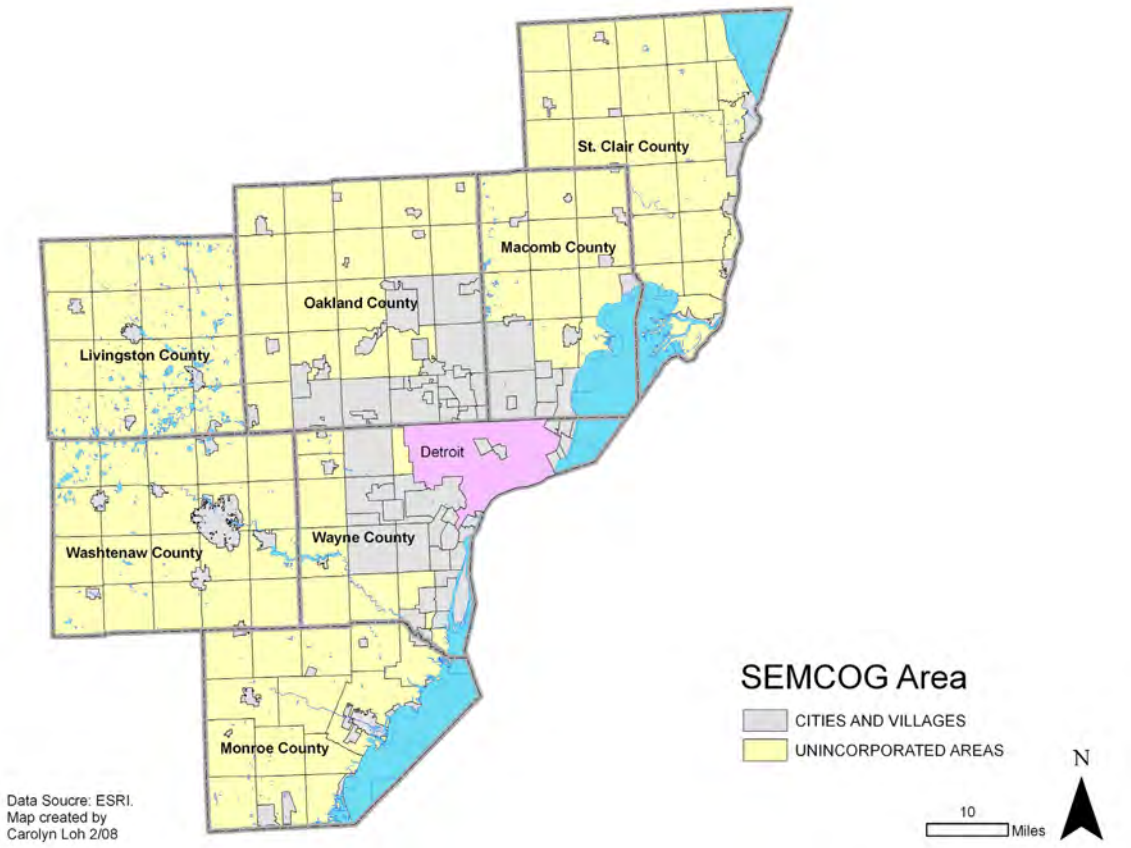
Map 1.1 Southeast Michigan Council of Governments (SEMCOG) area



Local Land Use Planning in Michigan

Despite low regional population growth, Southeast Michigan communities experience continual outward development pressure (Southeast Michigan Council of Governments, 2002). The seven-county Southeast Michigan Council of Governments (SEMCOG) area, shown in the map above, can also be thought of as metropolitan Detroit. In Metro Detroit, residential development, followed by commercial development, continues to push concentrically away from the central city due to a complex and powerful combination of racism, highway-favoring transportation policy, mortgage lending rules, cheap land, low-density zoning and planning, and consumer preference

(Brown, Johnson, Loveland, & Theobald, 2005; Jackson, 1985; Levine, 2005; Sugrue, 1996). Some inner-ring suburbs are now facing disinvestment as the City of Detroit did, beginning decades ago (Orfield, 1999).

In southeast Michigan, it is difficult to argue that this continual outward march of residential development represents a real need for housing, since the metropolitan area population is scarcely growing and there are high housing vacancy rates and open land in Detroit and some of its inner suburbs. Advocates of greenfield fringe development sometimes argue that this is where the most affordable housing can be found. In Detroit's case, the housing at the center could hardly be more affordable. This is not to suggest that there are no differences between a new house in a developing area and an old house in a decaying city; certainly homebuyers often choose the former for very rational reasons. However, with available housing and land already served by infrastructure, it seems like a capricious use of resources to replicate that infrastructure at the periphery.

Development has pushed out of the city, and, in Michigan, this has pushed the responsibility for planning and zoning onto local governments at the periphery, which tend to have limited resources to expend on planning and limited in-house expertise. These limitations are what I refer to throughout the dissertation as lack of planning capacity. The criteria for determining planning capacity are detailed in Chapter 3.

Anecdotal evidence from my own years as a planner and discussions with other planners suggests that rural planning commissions are typically accustomed to a very laissez-faire style of government, where people are granted a great deal of flexibility as to what they can do with their land. When development pressure begins to mount, these regulatory bodies must respond to and manage a level of development with which they

are unfamiliar. Rather than aggressively promoting programs such as PDR, TDR, and conservation easements, the township often continues its laissez-faire attitude, facilitating but hardly influencing the transition from rural to suburban.

As for the role of planners at the periphery, it is also worth considering that, as energy prices continue to rise, living in exurbia and working in the suburbs or central city will become increasingly less affordable. Facilitating the conversion of farmland to low density housing, when that housing might soon become undesirable from a market standpoint, might be an abdication of planners' responsibility to help make decisions that are based on the best available projections of communities' future needs. Of course, on the other hand, planners are also tasked with helping their employers or clients achieve goals that they define, whatever those may be.

In some parts of the country, mostly in the south, cities have been quite successful at annexing land to capture the population and tax base of these peripheral developments. Some, such as Jacksonville, Florida, have annexed wholly undeveloped land in anticipation of its future worth. In other parts of the country, this development takes place in unincorporated areas. Generally, in the west and parts of the south, a central county administration is responsible for planning and zoning in unincorporated areas. In the Northeast, cities and towns largely conduct their own planning and zoning (Arendt, 1987), although local plans may be required to conform to a state plan, such as the New Jersey State Plan. In many parts of the Midwest, unincorporated areas are divided into townships, which are responsible for their own planning and zoning. Although townships vary considerably in terms of population and level of development, the township tends to

be a limited form of government both in terms of its taxation powers and service provision obligations (Citizens Research Council, 1999).

In Michigan, December 2001 amendments to the Township Planning Enabling Act (P.A. 168 of 1959)[4] require that townships above a certain population threshold that choose to plan and zone must evaluate their master plans every five years, to determine whether or not the plan needs an update. Since many former townships close to the City of Detroit have incorporated into suburban cities, outlying exurban townships are where most of the residential, commercial, and industrial growth is occurring in Michigan, and townships are tasked with planning for this growth, responding to it, and attempting to limit it if they wish.

Cities and townships are creatures of the state, but in Michigan the state has largely delegated planning responsibility and its associated costs to localities. Membership in regional councils of government in Michigan is voluntary. COGs conduct research and make policy recommendations, but have no regulatory role. Counties may assist localities with planning issues at the locality's request, essentially acting as a planning consultant.

Many townships with small populations and small budgets cannot afford to hire their own planning staff. These townships contract with planning consulting firms for day-to-day planning activities such as reviewing site plans and writing ordinances, or sometimes just for special projects like master plans or corridor studies. Planning commissions and township boards make final land use decisions. I will discuss the role of

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[4] The Township Planning Enabling Act was recently repealed and replaced with the new Michigan Planning Enabling Act, 2008 PA 33, effective September 1, 2008, which applies to cities, villages, and townships. The five-year review requirement was unaffected by this change.

planning consultants in more detail in Chapters 4 and 5. Here I will mention only that the fact that a township has no in-house planning staff often means that many planning and zoning issues are handled by a local zoning administrator, building official, or elected official, who may or may not have training in planning, but usually does not have a degree in planning.

Lack of planning capacity may be a problem. Arendt (1987, p. 3) contends that rural communities lack the sophistication to produce documents adequate to govern land use, and borrow inappropriately from suburban ordinances, resulting in planning for excessive development. Developers may be better financed than communities where they seek to build, putting the local governments at a disadvantage. Low planning capacity governments are common in Michigan. A 2004 survey on planning and zoning conducted among local government officials in Michigan encountered the problem that "quite often communities were not aware of who was in charge of planning and zoning, or even whether or not the community had zoning in place" (McGrain & Baumer, 2004, p. 2).

Citizens' and officials' attitudes toward development vary between communities. Some townships take an adversarial, if not outright hostile, approach to development. In these communities the goals of the developer and the government are fundamentally at odds: one wants as much growth as possible, the other wants as little as possible. Other townships, desperate to redistribute the tax burden away from residential uses, welcome any kind of development and are unwilling to impose much in the way of standards on would-be developers. Some townships encourage growth but are not afraid to impose strict standards on new development. If the planning process works properly, the land use

outcomes of communities with differing attitudes toward development should be different.

The Four Disconnects

If they choose to plan and zone, and some of the most rural communities do not, these low-capacity communities must attempt to carry out a complex planning process that offers ample opportunity for breakdowns. The process involves members of the public, officials from at least three levels of government, developers, and several separate documents that are supposed to be consistent with one another and work together.

Lasswell (1951) first articulated the notion that the policy process is made up of discrete steps, and proposed a "delineated, sequential policy process framework" (deLeon, 1999). The diagram on the following page owes a debt to this idea; however, rather than focusing the trajectory of the process and its attendant feedback loops, I emphasize opportunities for gaps in the process: places where the handoff in the master planning relay fails to occur.

Within the planning process, there are four potential "disconnects" that can disrupt the intended chain of implementation between the goal and the desired outcome (see Figure 1.3 below). First, there may be a disconnect between the true desires of community residents and the stated goal itself. In an ideal process, community stakeholders come to consensus around goals in a visioning session organized by the planners and planning commission. Once the planning commission has gathered community feedback, its members, with the help of staff planners or planning consultants, write the plan goals and objectives. Examining the extent and quality of the plan's public participation process gives partial insight into this issue, but it is possible

for public participation to be dominated by a subset of residents with a particular viewpoint (Fiorina, 1999), when among the community at large there are actually conflicting opinions. On some particularly controversial issues, even a well-designed process cannot produce consensus, thereby creating the potential for resident dissatisfaction with the resulting goals.

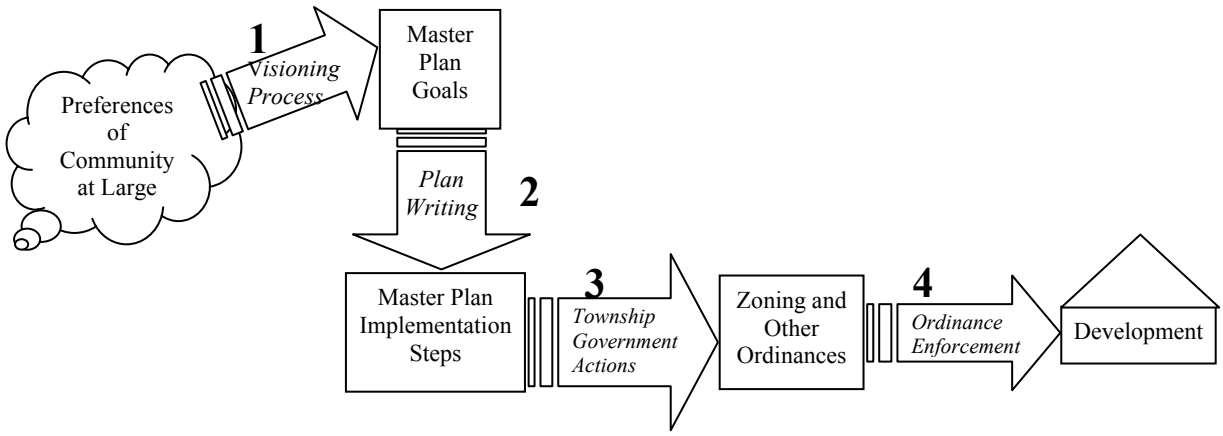

Figure 1.2: The four potential disconnects in the planning process: Each dashed arrow represents a point where the planning process could break down.

The second potential disconnect, between plan goals and suggested implementation steps, occurs when the planning commission and planners write the plan. Implementation steps may be missing from the plan or be inconsistent with goals, perhaps due to poor plan writing or a history of underemphasizing the plan. Of course, implementation may still occur without the inclusion of implementation steps in the plan. The inclusion of such steps, however, if sufficiently specific, can make it much easier for the planning commission to take action.

The first two disconnects take place within the plan-making phase of the planning process. The second two disconnects take place in the implementation phase of the planning process. The third potential disconnect is between suggested plan implementation steps and codification in the zoning ordinance. Since master plans in

Michigan have the weight of guidelines rather than law, they must be implemented through changes in the zoning ordinance if the township wishes to enforce their recommendations. The impetus for amending the zoning ordinance may originate from the Planning Commission, the Township Board, or staff planners, but amendments to the zoning ordinance are typically passed by the Planning Commission and then submitted to the Township Board for ratification. Amendments to the zoning map may be initiated by the township, or by landowners wishing to change the zoning of their land.

The final potential disconnect is between zoning ordinances and enforcement. If zoning ordinances reflect plan goals but are spottily enforced, meaningful implementation will not occur. Enforcement can happen at the planning commission level, when the commission approves projects, but also at the building inspector or zoning official level, when the official works on site to ensure compliance with ordinances and codes.

One of the most useful aspects of this study is that, by following a project through the planning process, I am able to evaluate all four potential areas of disconnect. This type of study is not often carried out (Talen, 1996b). Capacity and growth pressure could influence these potential disconnects in several ways. Low capacity townships might not carry out a meaningful visioning process. They might not have the expertise in-house or the money to hire planners able to write plans that provide clear direction for future land use decision-making. They might not have the resources to fund subsequent zoning ordinance updates, or to pay for expert advice on making decisions consistent with the master plan. Finally, the township government might not have the funds to pursue legal action against violators of the zoning code.

Growth pressure can create conflict in the community between those who want to keep the township rural, those who want to sell their land for development, and those who have just moved in. This type of conflict could make it difficult to reach consensus through a visioning process and might result in a master plan whose goals conflict with each other. Concerns about impending development requests might cause the planning commission to rush through the master plan process, negatively affecting plan quality. Pressured by developers, planning commissions might make decisions that conflict with the goals and future land use map of their master plan, motivated either to accommodate or resist development. Finally, a rapidly urbanizing township might have difficulty overseeing each development to ensure compliance with zoning ordinances (which is also a capacity issue).

Planning Outcomes

Through a combination of growth pressure, low planning capacity, and a complex planning process, limited governments at the metropolitan fringe have a great deal to contend with in order to produce plans and carry them out in an effective, meaningful way. This planning process, which includes the creation of the master plan, implementation in the zoning ordinance, application to land use and project decisions, and enforcement of codes, can result in several different outcomes, which I summarize briefly below and investigate in detail in later chapters.

First, the community may follow its master plan faithfully and the citizenry may feel that the outcome reflects its preferences. For example, a township is pro-growth, the master plan outlines pro-growth goals, and the township encourages and accommodates

new projects. Community preferences, goals, and implementation are all aligned. There are no disconnects.

Another possibility is that the planning commission generally ignores the goals and/or future land use map in its master plan, yet residents and officials are satisfied with the outcome. This could occur if community preferences did not match the master plan goals, so they were not implemented. The actions of the planning commission would not adhere to master plan goals, but they would adhere to community preference. This approach could cause problems if a developer demanded that the township follow its master plan, against the preferences of the community.

The third and fourth possibilities are that the community is dissatisfied with outcomes, either because the planning commission did or did not follow the plan. Dissatisfaction with a followed plan could stem from unintended consequences of plan goals, such as community members realizing that a no-growth approach limits the profits they can make by selling their land. Conversely, a planning commission that let in a great deal of growth that was not planned for could anger neighbors concerned about traffic, views, or property values.

There are three other possibilities that would make the plans and the planning process more difficult to evaluate. The first is the possibility that plans are written, possibly intentionally, as to be so vague that it is impossible to tell whether new project proposals fit plan goals or not. Townships may in fact have an incentive to write vague plans because it gives them greater flexibility in approving or denying projects or negotiating with developers (Hopkins, 2007), just as large areas zoned for agriculture offer the opportunity for the township to maximize its influence every time a rezoning

proposal comes to the table. The second possibility is that public opinion is so fragmented, or completely unknown, that it is impossible to tell whether the outcomes satisfy residents. The third possibility is that the plan is amended to accommodate and account for various projects; in other words, it is a public document driven largely by the actions of the private sector. Such a plan would appear to have achieved remarkable conformance, but the direction of causality would be the reverse of what we would expect.

Study Limitations

Any study, if it is to be conducted with some degree of efficiency and consistency, must lay some ground rules at the beginning that set the framework for the discussion and identify problems that are outside its scope. Because planning does not take place in a laboratory environment, there are also bound to be certain real-world intrusions on the integrity of the research design.

This dissertation examines four townships in one state. Although they were carefully selected to vary in specific ways, each township is to some degree unique, even if only by virtue of geography. Still, it seems reasonable to suggest that if patterns and trends emerge among these four townships, the same patterns might emerge in similar townships in Michigan or other states.

There are two types of townships in Michigan, general law and charter. Charter townships have certain powers that are more like those of cities than of townships, most importantly, protection from annexation (but not the power to annex). They are still fiscally constrained like general law townships. In order to find a township with high capacity and low growth, I had to include both charter and general law townships among

my cases. They are virtually identical in their planning processes, so the analysis should not be compromised, but it would have been ideal to only include general law townships.

Summary

Township governments in Michigan are largely responsible for permitting and managing new growth in the state. Their planning goals, and the ways in which those goals are implemented, have the potential to shape a great deal of the state's future development. In this study, I investigate the township land use planning process, focusing on the effects of planning capacity and growth pressure on the extent to which built outcomes conform to plan goals and maps. I also identify instances where the planning process breaks down, and explain the causes of such breakdowns.

This dissertation is organized into seven chapters. Chapter 2 is a review of the relevant literature. Chapter 3 describes the study's methodology, including criteria for case selection and qualitative and GIS methodology. Chapter 4 presents the planning context for each case study township, including existing land use, master plans and zoning ordinances, and planning structure. Chapter 5 analyzes and discusses the results of the GIS land use analysis. Chapter 6 details the planning process for each township and identifies and discusses disconnects within. Chapter 7 presents the study's conclusions.

Chapter 2

Literature Review

Introduction

This dissertation evaluates efforts by exurban and suburban township governments to manage growth through the planning process. The analysis in this study evolves out of literatures relating to suburbanization, sprawl, and growth management, as well as plan evaluation and plan implementation.

I begin with a review of the planning literature on urban sprawl, which is the inescapable name given to land-consumptive development that radiates out from cities, marching into the countryside at seemingly ever-faster rates. Fishman finds that planners judge sprawl to be one of the top ten most important influences on urbanized America in the past 50 years, and they think that efforts to curb sprawl will be one of the most important influences in the coming 50 years (Fishman, 2000). The planning literature is full of studies on sprawl: what it is, how to measure it, its effects, its remedies. All this is important if we are to understand if indeed sprawl is a problem, and if so, what planners can and should do about it.

I first present arguments from both sides of the sprawl debate. There are those who assert that sprawl is no different than the suburbanization process that has been taking place for centuries. Even if it is, this argument continues, sprawl is where much middle-class and affordable housing can be found, so being anti-sprawl is an elitist attitude. However, if we agree with the substantial body of literature that argues that

sprawl is a problem on the grounds of governmental and infrastructure inefficiency and negative impacts on human health, the environment, and the landscape, it is then important to know how sprawl occurs, and why. Certainly there are complex and interrelated causes of sprawl, from a rise in wealth, to racism, to the development of new technology. There is a growing number of planning scholars, however, who argue that much of the blame for sprawling development patterns rests on planners and the planning process. By artificially lowering densities through zoning, and excluding undesirable people and uses, planning and zoning pushes development further and further from central cities and job centers. If planners are to help mitigate sprawl and encourage alternative forms of development, it is vital that we understand how we currently plan for sprawl.

To do this, we must look critically at the plans and planning processes themselves, in two dimensions: plan quality and plan implementation. In other words, we need to determine whether sprawl happens because pro-sprawl plans are implemented, or because plans that would manage growth effectively are not implemented, or both. There is already a substantial literature on plan quality, and a growing number of studies on implementation. Literature on growth management is also important here, as it tells us which tactics in which situations appear to help slow or mitigate the effects of sprawl, which seem to be ineffective, and which have negative unintended consequences, such as decreased housing accessibility.

Sprawling Outward

There are two possible vantage points from which to look at the twentieth-century dispersal of population in the U.S. from the cities to the suburbs and beyond: from the

center looking outward and from the periphery looking inward. The center-based literature has detailed the "urban crisis", which refers to the virtual abandonment of many American inner cities by businesses and middle and upper class residents. Identified causes of this crisis include federal transportation and housing policy, racial conflict and discrimination, and misguided planning efforts such as urban renewal (Fishman, 1987; Jackson, 1985; Sugrue, 1996). Practice-based literature from this vantage point has tended to focus on urban revitalization efforts. In more recent years, another body of literature has begun to examine this population dispersal and efforts to control it from the standpoint of communities at the periphery, focusing on defining urban sprawl and evaluating the planning tools communities commonly use to combat it. This dissertation can be classified as part of the second body of literature.

Debates Over the Existence and Effects of Sprawl

Most planners view the continued spatial expansion of cities as a problem for the center, which is left behind, and for the countryside, which is converted to urbanized land (Fishman, 2000; Johnson, 2001; Orfield, 1999). There is a smaller subset of researchers, however, who argues either that sprawl and suburbanization are synonymous, and are as old as cities (Bruegmann, 2006), or that sprawl is the benign result of individual choice (Brueckner, 2000; Gordon & Richardson, 1997). These authors believe that a policy response to sprawl is unwarranted.

Brueckner argues that sprawl is the natural result of the combination of widespread market preference for low-density development and rising incomes that allow people to act on those preferences (Brueckner, 2000). If people disliked this type of development, they would not continue to buy houses there. Sprawl, caused by market

forces, occurs despite attempts by local governments to rein it in. In this view, planning seeks to impose higher density and open space preservation on an unwilling citizenry. In the view of Gordon and Richardson (1997), what we call sprawl is the result of millions of individual consumers making housing choices in the free market. Any discussion of sprawl's negative impacts flies in the face of those free market ideals and is virtually an attack on the American dream itself.

Brueckner claims that although sprawl may be partly caused by market failures, such as undervaluing open space and externalities related to commuting and infrastructure, consumer preference is the real driving force. Since market failure-related causes of sprawl are secondary, particularly sweeping or restrictive responses should be avoided. These might introduce inefficiencies or pricing inaccuracies into the system (Brueckner, 2000, p. 163), although the one appropriate policy response to overdevelopment would be development impact fees. These can be accurately calculated and are politically feasible.

There are many planning scholars who disagree with the idea that sprawl is organically formed by the invisible hand of the market (Glaeser, Gyourko, & Saks, 2005; Levine, 2005; Levine, Inam, & Torng, 2005); I will discuss these arguments in detail later in this review. There are even more planners who believe that, whatever its causes, sprawl is not benign (Frenkel & Ashkenazi, 2008). Sprawl has been associated with negative environmental impacts for plants, animals, and humans (Frenkel & Ashkenazi, 2008; Johnson, 2001), racial exclusion (Brueckner, 2000; Pendall, 2000), health problems (Ewing, Schmid, Killingsworth, Zlot, & Raudenbush, 2003; Kelly-Schwartz, Stockard, Doyle, & Schlossberg, 2005) Sturm and Cohen 2004, high energy consumption (Ewing,

1997), inefficient and costly use of land and utilities (Burchell & Mukherji, 2003), and low access to employment (Downs, 1999; Ewing, 1997). The consensus view seems to be that sprawl is a problem, possibly in ways we cannot yet understand, and planners should try to help provide alternatives and mitigate its effects.

What is Sprawl?

In the past fifty years, most cities in the US have experienced growth in the form of concentric bands of lower-density development (Brown et al., 2005; Gober & Burns, 2002). Beginning with traditional, relatively high-density suburbs in the fifties, cities have continued expanding outward at decreasing densities. In the last thirty years or so, this lower-density development has taken on a familiar pattern. Typically, this development begins with residential subdivisions of agricultural land, then matures to include institutional and commercial uses. Generally, this is what planners refer to as sprawl.

A significant amount of research has focused on defining and measuring urban sprawl in a variety of ways and at a variety of scales, from the regional (Brueckner, 2000; Fulton, Pendall, Nguyen, & Harrison, 2001) to the neighborhood level (Burchell & Mukherji, 2003; Ewing, 1997) to the site-specific (Hayden, 2004). Several studies have tried to synthesize the assumptions and results of other studies to create a consensus definition of sprawl (Downs, 1999; Galster et al., 2001).

Hayden defines sprawl as "a process of large-scale real estate development resulting in low-density, scattered, discontinuous car-dependent constructions, usually on the periphery of declining older suburbs and shrinking city centers" (2004, p. 8). Squires argues that a critical element of sprawl is its implications for equity at the metropolitan

level. He says, "Sprawl can be defined as a pattern of urban and metropolitan growth that reflects low-density, automobile-dependent, exclusionary new development on the fringe of settled areas often surrounding a deteriorating city (2002, p. 2). Defining sprawl is partly about describing an urban form, but partly about noting whom it keeps out. Brueckner defines urban sprawl as "excessive spatial growth of cities" (2000, p. 161). Growth should only be deemed excessive if it is more than an unfettered free market would provide.

Downs outlines ten qualitative characteristics of sprawl:

> (1) unlimited outward extension of development, (2) low-density residential and commercial settlements, (3) leapfrog development, (4) fragmentation of powers over land use among many small localities, (5) dominance of transportation by private automotive vehicles, (6) lack of centralized planning or control of land uses, (7) widespread strip commercial development, (8) great fiscal disparities among localities, (9) segregation of types of land use in different zones, and (10) reliance mainly on the trickle-down or filtering process to provide housing to low-income households" (1999, p. 956).

Both Hayden and Squires' definitions could be applied to sprawl on several scales, from the neighborhood to the regional level. Downs' definition, on the other hand, is meant to describe sprawl at the metropolitan level. Similarly, Fulton et al. define sprawl at the metropolitan level, but reduce it to one useful metric: if, in a certain time period, a metro area's percentage growth in land consumption has grown more than its percentage growth in population, that metro area is sprawling (2001, p. 3). The attraction of this definition is that it is very straightforward and difficult to quarrel with. It is hard to defend the notion that land consumption *should* outpace population growth. This definition even seems to sidestep some of the usual political baggage that comes with sprawl, since it avoids mention of aesthetics or behavior. The most obvious disadvantage of this definition and measurement is that its bird's eye view tells us little about the nature of what is

happening on the ground. For example, since Fulton et al. include uses such as urban parks in their total land consumption, they may overestimate the sprawling *nature* of a metro area, if not its total urbanized land consumption. Their measure of sprawl is designed to evaluate change over time.

They find that a city like Detroit, with a high percentage black population and very little immigration, experiences all its development on the fringes as people continue to leave the city, and those residents are not replaced with immigrants (Fulton et al., 2001, pp. 11-12). Metro areas with a high percentage of land served by public sewer and water tend to sprawl less. This is partly because these utilities make denser development possible, but also because their presence increases the value of adjacent land, making denser developments more desirable. Significantly for southeast Michigan, "politically fragmented" metro areas tended to sprawl more than those with fewer local governments (Fulton et al., 2001, p. 13). Geographic constraints such as mountains, water, or international borders tended to make a metro area less sprawling. Finally, areas with a high percentage of prime farmland tended to sprawl less, probably because the land had a relatively high value in its current form as farmland, so there was less incentive to sell it to a developer (Fulton et al., 2001, p. 14).

All of these factors point to a grim future for the Detroit metro area. Slow growth, a large black population, low rates of immigration, fragmented local governments, limited utilities in outlying areas, almost no geographic constraints, and a lack of regionally critical farmland make it seem all but inevitable that the Detroit metro area will continue to sprawl.

Rather than using a concise (but possibly oversimplified) definition, Ewing (1997) describes two "sprawl indicators": poor accessibility and lack of functional open space (meaning open space that is not part of someone's private yard) (Ewing, 1997) that can tell us the extent to which an area is sprawling. He claims that sprawl is a "matter of degree" and by looking at sprawl in terms of metrics we can avoid setting up and knocking down archetypes such as "leapfrogging development," which may have their own definitional issues (p. 109). However, defining and measuring sprawl as a matter of degree does make it difficult to answer the question, "Is it sprawl?" Unless a researcher draws a distinct line (and imagine the potential controversy surrounding such a thing) he or she can only describe an area as more or less sprawling, perhaps in relation to other areas. But this may be acceptable for research, since as academics we usually try to unpack binaries and not deal in absolutes.

Galster et al. fault current literature on sprawl for "confus[ing] causes, consequences, and conditions" (Galster et al., 2001, p. 681). They use a combination of eight different metrics to measure the extent to which an area is sprawling. Their definition: "Sprawl (n.) is a pattern of land use in a UA [urbanized area] that exhibits low levels of some combination of eight distinct dimensions: density, continuity, concentration, clustering, centrality, nuclearity, mixed uses, and proximity" (p. 685). Like Ewing, Galster et al. agree that sprawl is a matter of degree. The main disadvantages of this approach are that an eight-dimension sprawl definition and measurement system is less likely to catch on than a more concise, if less precise, definition might, and that the distinction between some of the different metrics seems slight. As with Ewing's sprawl indicators, these metrics can only be used comparatively.

In contrast to Fulton et al.'s dynamic measure of sprawl, Galster et al.'s method is designed to create a snapshot of a place at a particular point in time.

In their study of the impact of different types of development on infrastructure costs, Burchell and Mukherji define sprawl as "noncontiguous land development, including residential development in the form of 0.33- to 1.0-acre lots and nonresidential strip development involving floor-to-area ratios of 0.20 or less" (Burchell & Mukherji, 2003, p. 1534). This definition is particularly problematic since the authors do not adequately explain what they mean by "noncontiguous" and their 1.0-acre cap on residential lots would exclude a great deal of the development taking place at Midwestern urban fringes that by many other definitions would constitute sprawl. It is possible, since the study focuses on infrastructure, that they assume development at densities lower than one unit per acre would result in little public infrastructure expenditure, relying mostly on private wells and septic systems and requiring little new road investment. However, this is often not the case, depending on soil suitability for development and the condition and layout of the road network. In any event, Burchell and Mukherji do not explicitly state the reasons for their choice of definition, limiting its usefulness to their own study only.

Most people seem to talk about sprawl in relation to "urban sprawl." Hamin (2003) and Brown et al. (2005) make yet a further distinction, identifying characteristics specific to "rural sprawl." Brown et al. suggest that "the pattern represents a 'rural sprawl,' indicating a pattern of development decreasingly linked by proximity to urban centers and increasingly driven by access to open space and recreational opportunities" (p. 9). Hamin defines "rural sprawl" as "the construction of homes outside of incorporated municipalities, typically in the countryside governed by counties," (p. 369)

or in the case of Michigan, townships. Rural sprawl is driven by the demand for larger houses on cheap land, low taxes, and a willingness to drive to the city for urban amenities (but not a willingness to pay for those amenities through taxes).

The most appropriate definition and measure of sprawl depends on the scale and time frame of the analysis. Hayden, Downs, and Squires' definitions and measures qualitatively describe the sprawling nature of a neighborhood, city, or region at a particular time. Fulton, Ewing, and Galster et. al quantify sprawling tendencies of neighborhoods and regions with varying degrees of complexity and detail. Although Fulton et al.'s method of measuring sprawl is appealing because it is simple, straightforward, and its results are usually striking, especially for slower-growing metro areas, Ewing's and Galster et al.'s views of sprawl as a tendency rather than a black-and-white condition are more subtle and potentially more useful. Although it would be convenient to categorize an area simply as sprawling or not, the truth is usually more nuanced, and such categorization would inevitably spark fierce arguments. By choosing reasonable and easily quantifiable axes of measurement, we can make more careful comparisons between areas and more accurately judge the impacts of sprawl.

Planning: Causes of and Responses to Sprawl

Urban historians have posited a number of interrelated racial, economic, and structural causes for the continued outward expansion of cities. For example, two major federal policies that initially made suburbanization attractive have continued to encourage and subsidize sprawl. One federal policy that had a significant impact on suburbanization was the decision that transit "represented private investment and should 'pay for itself'" (Jackson, 1985, p. 168) while roads "were defined as a public good and thus worthy of

public support" (p. 170). The massive road building undertaken following the Interstate Highway Act of 1956 allowed people to live farther from their jobs than had ever been possible before. The other major policy that changed the American housing market forever was the formation of the Federal Housing Administration (Fishman, 1987, p. 175; Jackson, 1985, p. 203). By insuring mortgages, the FHA made it possible for millions of Americans to own homes. By adopting neighborhood and home rating standards which determined if the agency would insure the mortgage or not, the FHA made it easy to buy a single family detached house in an all-white suburb and difficult if not impossible to buy a home or apartment in a central city with any degree of racial diversity (Jackson, 1985, pp. 207-208). The addition of the ability to deduct the interest on a mortgage made renting almost financially irresponsible. Millions of Americans moved out of cities and into suburbs. In addition to these factors, however, planning has had its own role in fostering, some would even say mandating, sprawl.

The Role of Planning and Zoning in Creating Sprawl

As discussed earlier, some planners with a more conservative or libertarian bent see sprawl as the free market in built form. Other planners see low-density sprawl as far from the product of a free market situation. Rather it is the direct result of twentieth-century land use and transportation policy, which has had overall negative effects on equity and accessibility, and which places limits on consumer choice rather than expanding it (Levine, 2005; Levine et al., 2005). Local land use regulations artificially lower density despite potential residents' preference for higher density living, and the desire of developers to serve a market comfortable with higher densities (Levine et al., 2005, p. 318). Land use regulations mandate and subsidize sprawl. Thus, a policy

response is necessary in order to move closer to true free market conditions: proponents of this view contend that the freer market created by relaxing local land use regulations would produce less sprawl than the current system.

In fact, many argue that local land use regulation has been and continues to be the biggest cause of sprawl. It artificially lowers density below what the market would otherwise support (Esparza & Carruthers, 2000; Glaeser et al., 2005), forcing development out further and further from the center (Landis, 2006), and creates a complex regulatory environment that makes greenfield development even more attractive (Esparza & Carruthers, 2000). Euclidian zoning probably has the greatest influence on sprawl of any local land use technique. It artificially lowers densities below market levels (Levine, 2005), limits the area's ability to absorb population growth, and inflates housing prices. In contrast, low-regulation areas increase their housing supply quickly enough to keep prices relatively constant (Glaeser et al., 2005, p. 19).

Zoning also separates uses beyond what is necessary for health and safety; instead a primary motivation often seems to be the preservation of property values for single-family homeowners (Levine, 2005). This separation of uses results in low pedestrian and auto accessibility, which are hallmarks of sprawl.

Esparza and Carruthers argue that "land use planners, and the planning discipline in general, hasten the pace of exurban development" (Esparza & Carruthers, 2000, p. 23) by creating a complex, expensive regulatory environment in cities that makes greenfield development in unincorporated areas more appealing than developing within the city limits. This situation is compounded by high demand for rural residential development. In Sierra Vista, the Arizona city in their study, Esparza and Carruthers conclude that

planning officials not only encouraged rural development by raising the "cost and complexity of residential development within city limits" (p. 28), in the master plan they encouraged the expansion of those city limits, which marks the newly included area for urbanization. Both planning-related actions, in Esparza and Carruthers' view, directly led to sprawl.

Planning's Response to Sprawl: Growth Management

Growth management refers to a combination of local land use tools that are designed either to slow down or to influence the nature of growth, or both (Norton, 2008). Many jurisdictions include at least one or two growth management tools in their master plans or zoning ordinances, so there is great interest in assessing their impacts. Some scholars feel that growth management tools, if used correctly, have the potential to halt or slow sprawl, or at least fundamentally change its character so that it no longer can be classified as sprawl. These researchers are interested in studying various growth management tools to assess their effectiveness. Of course, growth management efforts must contend with the other primary impulse of local government, business, and real estate interests: to grow, both in population and economy (Gill, 2000; Leo & Anderson, 2006; Logan & Molotch, 1987). Boyle and Mohamed (2007)find that this pro-growth impulse is particularly strong in Michigan.

To test the assumptions that growth controls lead to lower local rates of population growth and contribute to high housing prices, Landis studied seven California communities that used growth controls and compared them with six similar communities that did not use growth controls. Landis defines growth controls thus: "Growth controls are designed to limit significantly population growth, housing construction, and/or

economic growth below levels that would otherwise be achieved in an unconstrained real estate market" (Landis, 1992, p. 490). Growth management programs, on the other hand, "seek to redistribute growth and development in ways that minimize negative environmental, social, and fiscal impacts" (Landis, 1992, p. 491). Growth management programs can have the effect of controlling growth, however. One flaw with this study is that, as Landis points out, many communities have adopted multiple growth control and growth management programs. Therefore, it may be difficult to assess the independent effect of any one policy. The growth control approaches of the communities under study included building permit caps, population growth rate targets, concurrent developer-provided infrastructure requirements, and majority-rule annexation approval.

Landis's results show that only building permit caps seemed to have the intended dampening effect. Additionally, rather than limit the total amount of housing construction, they simply evened out boom-and-bust cycles into a steady growth rate. These results could several different implications. One possibility is that growth controls do not work very well. Developers are able to get around them and build almost as many units as they would in pro-growth or neutral areas. Another possibility is that the regular zoning and infrastructure requirements in the pro-growth or growth-neutral cities have a significant restrictive effect on their own, even though it may be inadvertent. This could have the effect of holding growth rates below market demand without having an intentionally anti-growth stance. This view is supported by Glaeser et al., who find that "housing supply has become very inelastic in some places because of restrictive zoning and other land use regulations" (Glaeser et al., 2005, p. 4). Additionally, Nguyen (2007)

finds that direct democracy growth control in the form of ballot measures does have a dampening effect on housing growth.

Kaplan et al. find that even the most committed and sophisticated communities may have a difficult time resisting sprawl. Hamburg Township, a high growth-pressure community in Michigan, has had an open space ordinance since 1992 that is included as a model ordinance on the EPA's website (Kaplan, Austin, & Kaplan, 2004). Yet, the authors observe that development in the township qualifies, by Downs' standards, as sprawl (Kaplan et al., 2004, p. 302). Here, planning seems not to be providing an answer to the problem.

Of course, the group of researchers that thinks that planning is largely an ineffective tool against sprawl would hardly be surprised to read about the Hamburg Township study. In the context of growth management, planning is a large part of the problem. A market-based approach implemented through the relaxation of density controls would be the most effective way to increase density and slow down the sprawl process (Levine, 2005; Levine et al., 2005; Talen & Knaap, 2003).

Exclusionary Effects of Growth Management

There is conflicting evidence as to the exclusionary effects of growth management. Landis finds that overall housing prices did not increase more quickly in growth control cities than in other cities. He speculates that there are three reasons for this. First, as mentioned above, growth controls are not that effective at restricting supply. Second, even if some communities manage to restrict supply, there are neighboring communities that are not trying to do so, so demand can spill over to them. Third, housing prices are affected by region-wide factors, so the growth control policies

of one community have a minor effect in this larger real estate market (Landis, 1992). In studies of Portland's urban growth boundary (UGB), the general consensus in the peer-reviewed research seems to be that although housing prices did rise, they did not rise more than in other western cities, and they did not rise more than would be expected given the tremendous job and population growth Portland experienced during the tech boom (Downs, 2002; Nelson, 2002; Philips & Goodstein, 2000).

On the other hand, some believe that growth management is often a cover for racial and economic exclusion (Landis, 2006), and slowdowns in building or changes in density disproportionately affect minorities and the poor. Pendall (2000) studies five common growth control methods and finds that uniform low density zoning tends to have the strongest negative effect on rental housing of any of the common growth control tools, which in turn has the strongest negative effect on the percentage black and Hispanic population in a community. Building permit caps also appear to have a negative effect on percentage Hispanic population. The other methods, including UGBs, adequate public facilities ordinances, and building moratoria, had weak negative effects on minority population. Quigley et al. (2004) find that low density single family zoning in a community was associated with an increase in non-Hispanic white population and a corresponding decrease in Hispanic and Asian populations. Nguyen (2007) finds that Hispanics are disproportionately excluded by citizen-initiated growth control measures, to the demographic benefit of non-Hispanic whites.

Exclusionary effects of growth management exist, but they may be at least partially offset by deliberate governmental action to increase density and affordable housing within the jurisdiction. Knaap (1990) finds that the UGB's positive effect on

land prices inside the boundary was significant and immediate. If densities within the UGB had not increased, an associated rise in *housing* prices would have been expected. However, while it limited the use of non-urban land, Portland's Metro (the metropolitan planning body) also bestowed increased development rights, including rezonings and higher densities, on property inside the UGB. In addition, it streamlined the development process to keep approvals for even the most complicated projects under a year (Nelson, 2002).

Growth Management at the State Level

Another group of researchers thinks that growth management tools can have a measurable effect on sprawl, but only at the regional or state level. Local government units are too small and their governmental capacity is too low to make any individual effort effective. State-level policies can influence the content, frequency, and quality of local plans, leading researchers to hope that these improvements will translate into better on-the-ground results. The evidence for this, however, is not clear.

The effect of state mandates on plan quality is addressed in several studies. In their study of planning in states with hazard mitigation planning mandates of various strengths, Dalton and Burby find that low density communities in states with strong planning mandates turn out to have, on average, more "thorough" plans. These plans incorporate comprehensive background information, detailed goals, and a high level of prescriptiveness in their recommendations (Dalton & Burby, 1994; Norton, 2008). In Maine, when the state regulations changed from a mandatory to a voluntary system, the number of municipalities submitting plans to the state regulatory board went down, but

their vertical consistency went up (Pendall, 2001). The policy implications of this study are unclear.

In terms of overall impacts of state-level "smart growth" policies, although densities in states with growth management legislation declined less than in states without them, the difference was not statistically significant and could probably be explained by the fact that the growth management states were also faster-growing (Anthony, 2004). In a different analysis, states with growth management legislation added more population growth in high density areas, and less in low density areas (M. Yin & Sun, 2007). Regardless of state-level growth management mandates' effectiveness, such legislation may continue to be relatively rare. Hamin (2003) points out that future state-level efforts in Midwestern states may have a difficult time since much of the growth in those states is in the form of rural sprawl. Those representing residents of rural sprawl are not particularly likely to try to legislate it away. One possible approach, she suggests, would be to separate out rural (agricultural) interests from rural sprawl interests.

In addition to managing growth, states may be the appropriate levels of government to tackle exclusionary zoning because their interests are different from those of local governments. It is in local governments' interests to keep out lower income residents, on both the cost and revenue side of their operations. In his study, Knaap finds that, in Oregon, the implementation of statewide mandatory inclusionary zoning goals does in fact "foster inclusionary zoning" when the state has some review power over local plans (Knaap, 1990, p. 44).

There then seems to be some evidence that state-level regulations can influence the content and quality of plans, and those plans' goals. There is also evidence that statewide growth management programs have some effect, albeit not a large one, on the density of new growth.

Evaluating Planning and Plans

To understand the effects of plans and specific policies like growth management measures, it is necessary to understand the structure and implementation of those policies (Brody & Highfield, 2005; Laurian et al., 2004; Talen, 1996a). Many studies have focused on plan quality (Dalton & Burby, 1994; Knaap, Hopkins, & Donaghy, 1998; Norton, 2005a), or the inclusion of a specific goal, such as hazard mitigation. More recently, studies have attempted to address what explains implementation success. Studies evaluating plan quality, which focus their efforts on analyzing documents, typically do not also investigate the plans' implementation, which requires an investigation into the relationship between what the plan says and what actually gets done. The intent of my research is to combine both approaches into one study.

Plan Quality

Studies evaluating plan quality develop metrics and try to explain what influences one plan to be stronger and better developed than another. These differences can include state influence, public participation, and commitment to a particular regulatory philosophy such as smart growth. Plan quality is commonly thought to include data comprehensiveness, analytical quality, and goal and recommendation specificity and prescriptiveness (Berke & French, 1994; Dalton & Burby, 1994; Norton, 2005a).

Dalton and Burby's study, mentioned previously, finds that strong state planning mandates positively affect local plan quality. Commitment to plan implementation is affected by motivated local officials and activists (Dalton & Burby, 1994). Burby finds that increased stakeholder involvement positively influences both plan quality and eventual implementation (Burby, 2003), and Brody finds that the inclusion of certain stakeholders has a positive effect on plan quality (Brody, 2003b). The presence of strong state mandates also appears to improve the quality of the goals and policies section of local plans (Berke & French, 1994)

In evaluating plans and ordinances for the inclusion of smart growth principles, such as reduced setbacks, street widths, and parking requirements, Talen and Knaap find that in Illinois, regulations in communities that claim to value "smart growth" differ little from those in communities making no such claims, both types often requiring relatively large lot sizes and setbacks (Talen & Knaap, 2003). In fact, "jurisdictions are requiring sprawl de facto" (2003, p. 357). Illinois is probably not an exceptional case, since Norton finds that in North Carolina, local governments were more interested in advancing economic development goals than those having to do with growth management (Norton, 2005b).

Plan Implementation

It is difficult to evaluate implementation from start to finish, and studies of this sort are rarely attempted (Brody & Highfield, 2005; Calkins, 1979; Talen, 1996a). In her comprehensive discussion of research on plan implementation, Talen (1996b) calls for a new emphasis in planning research on studying the actual effects of plans. Studies of planners' attitudes, the planning process, and the quality and content of plan documents

are not in short supply. None of these, however, evaluates the actual implementation of adopted plans: these analyses essentially stop at the adoption of the plan (Brody & Highfield, 2005). In the field of public policy, program evaluation comes close to the type of approach that is appropriate for planning, but this type of analysis ignores the important spatial dimension of plans (Talen, 1996b). The GIS component of my analysis is one way of incorporating an evaluation that accounts for the spatial nature of plans.

One reason for the scarcity of true implementation studies is that there is still a debate over what implementation means: should the focus be on process or on outcomes? There are several other reasons for the lack of implementation research. Perhaps the most important is the methodological complexity of such undertakings, which must often address a time lag between the adoption of a plan and any observable effects, the fact that plans may be updated without regard for the unfinished business of earlier plans, and multicausality, whereby evaluating implementation efforts only the researcher ignores the myriad other forces at work within and outside the jurisdiction (Talen, 1996a). My research will attempt to overcome these problems by its focus on how specific projects do or do not advance the goals and recommendations of the community's current plan. The issue of multicausality is addressed through the interviews, in which local officials and planners introduce local knowledge of development, political, and economic trends that influence plans and implementation.

What is implementation?

Evaluating implementation involves making choices both about how the process is understood to work and what constitutes implementation. Many studies, including this one, use a "stages heuristic" approach to describe the policy process (in this case, the

planning process), based on the work of Harold Lasswell (Jenkins-Smith & Sabatier, 1993). This stages heuristic breaks the policy process into discrete steps by which a policy is enacted and implemented, and allows a more manageable focus on one or more individual stages. Sabatier and Jenkins-Smith take issue with this model for, among other prolems, its lack of attention to causality, "descriptive inaccuracy" and "legalistic, top-down focus" (Jenkins-Smith & Sabatier, 1993, p. 3). They propose an alternative "advocacy coalition framework", which posits that the policy process actually takes place through three sets of processes: the competition of advocacy coalitions for influence on policy, changes external to the policy system, and "stable system parameters—such as social structure and constitutional rules" (Jenkins-Smith & Sabatier, 1993, p. 5). This approach attempts to solve the issue of seeing the policy process as a closed system, but reintroduces complexity that the stages heuristic attempt to limit.

In planning, the stages heuristic is a common approach to understanding the process. When evaluating implementation through this lens, the two ends of the spectrum, conformance and performance, (Laurian et al., 2004; Norton, 2005a; Talen, 1996b) are represented by Wildavsky (1973) and Alexander and Faludi (1989). Wildavsky argues for a strict interpretation of implementation where there is a direct linear relationship between the plan and its outcomes (conformance). "Planning is the attempt to control the consequences of our actions. The more consequences we control, the more we have succeeded in planning" (Wildavsky, 1973, p. 128). Alexander and Faludi argue that the process is the most important part of the plan, and the fact that the plan is consulted in decision making means that it is being implemented (performance). Talen (1996a, 1996b) suggests a middle view, where "by focusing on the assessment of

goals achievement more broadly, the link between plans and outcomes can still be determined without the burden of strict linearity" (Talen, 1996b, p. 255). Since goals are usually general policy statements about the community's values and vision for the future, the fulfillment of those goals can take a variety of forms. Although some researchers lean more toward performance (Norton, 2005a) and others toward conformance (Brody & Highfield, 2005; Laurian et al., 2004), almost all inhabit Talen's middle ground. This dissertation aims to add to the implementation literature by taking a start-to-finish approach to plan analysis.

The importance of implementation

A common criticism of planning is that governments expend a great deal of energy making plans, only to have them "sit on the shelf" for years without being used, and without accountability for results. Unless one subscribes to the view that most of the value of planning lies in the planning process itself, planning without implementation is, at best, a waste of time, effort, and money, and, at worst, a missed opportunity to actually influence the future development of the jurisdiction.

Calkins criticizes the lack of post-adoption plan evaluation, and the prevalence of "new plan syndrome" where, after "it becomes obvious that the development patterns of the urban region are substantially different from those called for in the plan," the municipality simply repeats the planning process to create a new plan that better reflects reality, without working to find out why the old plan failed (Calkins, 1979, pp. 745-746). Unimplemented plans are not influential, and waste the good will and trust of those who participated in their formation.

Evaluating implementation

Those researching plan implementation try to understand what makes plans more and less effective and impactful. Most of the effort in implementation research has gone into finding out what explains implementation success. One hypothesis is that plan quality influences the level of implementation and therefore the effectiveness of the plan. Good plans get things done (Knaap et al., 1998). Another hypothesis is that extensive stakeholder involvement and public participation ensure that the plan gets implemented (Bengston, Fletcher, & Nelson, 2004; Berke & French, 1994). A plan developed without community buy-in will sit on the shelf either because of lack of interest or because of political backlash.

Due to the nature of planning, in which implementation occurs over a long period of time, and values and goals may change along the way, Talen suggests that most of the problems of methodological complexity she enumerates can be overcome by focusing on plans' goals. In this construct, "explanatory chains are not vital because the question to be addressed is more black and white: Were goals achieved or not?" (1996b, p. 255). This seems to be more of an avoidance of the problem than a solution, however. The only evidence is negative. For example, if the goal is the preservation of rural character, and the goal appears to have been achieved, how are we to know the role of the plan in achieving this goal? Perhaps the local economy took a severe downturn and the market for development in the area evaporated, leaving the plan untested (and thus unimplemented?). The only thing we can be sure of, without a more in-depth analysis, is that the plan did not *prevent* this goal from being implemented. Talen asserts that evaluating plan implementation means *a priori* accepting the idea that "much of urban

land development is the result of deliberate action and that planners possess at least the potential to exert change on this process" (Talen, 1996b, p. 254). This seems to be a large assumption and one that each implementation study should attempt to empirically test.

In evaluating Pueblo, Colorado's distribution of parks, Talen (1996a) finds that actual park location bears little resemblance to the parks proposed in the city's 1969 master plan. The influence of the plan or planners is not evident; rather, it seems that parks were located in an ad hoc fashion in response to the clout of certain neighborhoods, or certain community or departmental values at a particular time (increasing access for the growing Hispanic population or for renters). Her regression analysis, in which she controls for spatial autocorrelation, raises more questions than it answers (p. 89). I hope the more detailed case study approach of this dissertation, which allows for a better understanding of the decision-making process, will prove more illuminating. Since Talen is interested in the relationship between goals and outcomes, it is surprising that she does not look at the goals section of the plan. Did it mention improving park access for renters or minorities? If it did, perhaps the level of implementation would seem higher. Certainly a large part of analyzing outcomes should be looking at intent, as well as at spatial distributions.

Laurian et al. (2004) develop a Plan Implementation Evaluation (PIE) approach, which is designed to determine whether officials are following their plans when making permitting decisions. They find that there is more implementation breadth than depth: many policies have been implemented, but not many have been implemented fully as measured through the permitting process.

The PIE approach seems useful mostly as a technique to systematize one's thinking when evaluating plans. Limiting the study of implementation to permits can ignore the ways plans are implemented through zoning changes, ordinance revisions, and informal means. Laurian et al. come down explicitly on the conformance side of the performance/conformance debate, where "a plan is considered implemented if development patterns adhere to its policies and meet its objectives. This approach assumes a rational model of planning" (p. 472). This definition of implementation is consistent with the way implementation is conceptualized in this dissertation; however, I am not certain that it is necessary to assume a rational model of planning in order to expect that outcomes should bear a relationship to plans.

Like Laurian et al., Brody and Highfield seek to test implementation by looking at permits. In this case, however, they look not at the content of the permits but at their spatial distribution. If plans are being implemented, they hypothesize, permits to develop wetlands should be clustered in areas planned for high density development. Also like Laurian et al., Brody and Highfield lean more toward the conformance rather than the performance end of the spectrum. Although they recognize that "a direct cause-and-effect relationship may be an unrealistic expectation for most plans…not holding planners and planning participants accountable for their adopted policies would undermine or delegitimize the field of planning" (Brody & Highfield, 2005, p. 161).

One key finding of this study is that areas under extreme development pressure are more likely to show nonconforming wetlands permits. My dissertation tests a related hypothesis. In these cases, local governments are apparently not following their own master plans. Brody and Highfield note that in Florida master plans are legally binding;

however they do not explain by what means planning commissions are breaking the law, and under what circumstances. In exploring the causes of sprawl in Michigan, the interesting question is whether the problem is more that communities are failing to follow the recommendations of their master plans, or the fact that the recommendations themselves are flawed.

Norton points out that those academics and policy makers who call for "more and better local planning" make three critical assumptions that need to be tested. They assume that plans will be high quality enough to be useful, that local plans will address regional growth management issues, and that plans will be used and implemented, rather than remaining "on the proverbial shelf" (Norton, 2005a, p. 55). Norton is particularly interested in plan quality. He finds that the plans in the North Carolina coastal communities are generally strong on background but weak on policy, and especially weak on the links between environmental and human development constraints and future land use plans. Thus, the implementation of these plans would not have positive results, from an environmental or growth management perspective. This is not to say, necessarily, that no plan would be better than a weak plan, although that is a possibility.

Planning Capacity

The hypothesis I test in this dissertation is that governmental capacity (education of elected officials, expertise of staff or consultants, size of budget, amount of staff time) constitutes a strong influence over whether and how well a plan gets implemented (Bengston et al., 2004; Charney, 2005, p. 478, referencing Filion et al., 2004; Hanna, 2005). In disciplines where capacity has become a widely studied concept, such as education and community development, two questions emerge: what constitutes capacity,

and what are its effects on outcomes? In education, where funding is a political issue, it is important to understand the effects of different components of capacity (such as financial, social, and human resources), so that a case can be made for or against more funding or teacher training. In community development, funders look for measures of capacity in order to decide which CDCs to fund, and are highly interested in whether those measures of capacity correlate to increased "bang for the the buck."

At the most basic level, everyone agrees that capacity refers to resources, which can mean "money or the things money buys" (Cohen et al., 2000 p. 5). Some argue that this measure of capacity cannot explain outcomes, because it does not account for how the resources are used (Cohen et. al 2000, p. 5) or the motivations (commitments) of those using them (Spillane and Thompson 1997, p.191). Norton (2005) argues that although commitment has an effect on outcomes, it should not be lumped together under the category of capacity: commitment is the will to act, but capacity is the ability to act.

In the field of education, Spillane and Thompson (1997) argue that capacity has three components, physical (financial) capital, social capital, and human capital. Social capital means bonds and good will within the group. Human capital means the knowledge skills of individuals, as well as their motivations. Capacity requires leveraging those individuals with good skills and motivation, and forming networks with other institutions that can extend resources. For example, in the planning context, a local government could work with a nearby university to use planning students on a project that the government did not have money to pay for.

In community development, capacity may consist of "resource, organizational, networking, programmatic, and political components" (Glickman and Servon 2003, p.

240)—in other words, measures of capacity extend beyond direct service provision ability. Gittel and Vidal answer the question, capacity for what? They find that capacity has three parts: organizational, political, and technical; for CDCs, it is "capacity to affect their community's development" (1998, p.5).

For regional councils of government, "intraorganizational capacity" seems to have to do both with service provision and leadership on "hard policy decisions" (Visser 2004, p.52). Voluntary regional councils have trouble with the latter because they avoid taking politically risky action that might alienate their membership.

Another related concept of capacity is civic capacity, which may include governmental capacity, but which embraces the resources of the larger community. One concept of civic capacity posits that it is made up of civic capital, civic competency, and civic enterprise (Dent 2008). Civic capital is the community's social institutions, civic competency is the collective skills of community, and civic enterprise is the community's willingness to work together on a task, as well as the expectation of working together again in the future (Dent 2008). In the context of urban regime theory, civic capacity may also be thought of as "a scheme of cooperation through which the members of the governing coalition align their contribution to the task of governing" (Stone 2005 p. 329).

There is agreement, then, that capacity includes the people in an organization, their skills and willingness to use them, the relationships and good will that the organization builds with other individuals and organizations, and of course, the financial resources of the organization.

What are the effects of capacity on outcomes? Glickman and Servon make the claim that "there is a strong relationship between the capacity a CDC has and the

outcomes it produces. Those with greater amounts of capacity stand a better chance of funding than those with less" (2003, p. 241). Higher civic capacity means more success for government environmental initiatives, and more favorable perception of the agencies sponsoring the initiatives. (Dent 2008).

In planning, high capacity governments can carry out plans even in the face of opposition or development pressure (Filion et al, 2004). In the developing world, capacity-related obstacles to implementation include lack of political support for environmental issues (especially when they conflict with economic development) and lack of funding for follow-through, even if officials manage to create a solid plan. Building institutional capacity involves building skills, either by hiring new staff or by training existing staff or officials (Puppim de Oliveira 2005).

Conclusion

The intersection of bodies of literature on sprawl and implementation enables both a broad and narrow focus, from the general causes and nature of sprawl, to the role of planning in growth management, to the effectiveness and impacts of certain policies. The decision to study the effectiveness of a particular growth management tool requires engaging with and taking a stand on higher-level debates, since one's position in those debates changes the direction of the research. Conversely, evidence gained from a narrowly focused study of a particular tool or type of plan can lend weight to one side of a larger argument. In this dissertation, I align myself with those who argue that sprawl exists, and that it should be of concern to planners. I also take a more conformance-based and linear approach to plan implementation evaluation. I base these decisions both on the literature reviewed in this chapter, and on my experience as a planner.

Chapter 3

Methodology

Introduction

The primary aim of this dissertation is to investigate if, and how, growth management occurs through the local government planning process, given differences in growth pressure and planning capacity. If growth management is not occurring, or is not effective, the most likely land use outcome of standard township planning practice is low to medium density rural sprawl. To arrive at a complete and nuanced answer to this question, and assure construct validity, it is helpful to combine analysis of a variety of data sources (R. K. Yin, 1994, p. 34). Plan and ordinance analysis helps create a picture of a community's intentions and how thoroughly it has gone about making those intentions reality. GIS analysis provides a detailed look at the degree of match between community plans and land use outcomes. Interviews with planners and planning officials provide information about how the planning process is carried out, why certain decisions are made, and how enforcement occurs. This chapter details the methodological steps undertaken to produce the analysis contained in later chapters.

As stated in Chapter 1, in this study I test two hypotheses. First, I hypothesize that conformance with master plan goals and the future land use map increases with planning capacity and decreases with growth pressure. I expect that lower-capacity townships write plans with goals that are more vague, and make exceptions to their future land use maps more often. I expect that higher-capacity townships produce more sophisticated,

detailed documents and follow them more closely. This is not to say, however, that higher capacity townships are more likely to practice growth management; for example, their higher capacity may be the product of a tax base fueled by a large amount of development. I also hypothesize that a large increase in growth pressure can overwhelm a township's resources and lead to the township less rigorously following its master plan[5]. These latter two hypotheses seem to capture the most likely effects of variation in planning capacity and growth pressure.

Qualitative Research

Case Studies

The most appropriate method with which to examine these questions is the case study. Case studies are a preferred method when studying complex, relatively contemporary events over which the researcher has no control (R. K. Yin, 1994). Particularly of relevance to this study, case studies can "show the process involved in causal relationships," rather than merely identifying them (Hodkinson & Hodkinson, 2001). Furthermore, given the number of details inherent in the planning process, the multiple data types and sources available, and the limits on the reasonable geographic scope of a dissertation, it is likely that a quantitative study on this topic would encounter the problem of having more variables than cases. Some disadvantages of the case study approach are their unwieldiness, both in terms of the logistics of carrying them out and

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[5] It is possible, however, that the growth pressure hypothesis could go the other way. Low growth-pressure communities might be so eager for tax base that they approve projects that do not conform to the goals, objectives, and maps of their master plan. High growth-pressure communities could rely heavily on their plan as a means to manage and direct the large number of proposed housing units.

the volume and nature of the data they generate; their lack of numerical precision; and the fact that they are not "generalizable in the conventional sense" of statistical analysis (Hodkinson & Hodkinson, 2001).

The task of a case study is to "illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result" (R. K. Yin, 1994, quoting Schramm, 1971). In each of the case studies it will be the aim of this dissertation to illuminate the decision-making processes undertaken by township planners, officials, and staff that led to the construction of a master plan and its implementation. This dissertation uses a multiple case study design in which cases are selected for theoretical replication, rather than literal replication. This means that we would expect the results of each case study to vary, but for "predictable reasons" (R. K. Yin, 1994, p. 46).[6]

Case study selection

		Planning Capacity	
		Low	High
Growth Pressure	Low		
	High		

Table 3.1: Planning capacity and growth pressure matrix

[6] In literal replication, we would choose cases with all the same characteristics, expecting similar outcomes.

The four cases in this study were selected for maximum variation along two axes: growth pressure and planning capacity (see Table 3.1). As much as possible, demographic and geographical differences between the four cases were minimized. For this reason, all of the cases are townships, and all are selected from the seven-county Southeast Michigan Council of Governments (SEMCOG) region, which includes and extends slightly beyond the Detroit metropolitan area. Although townships certainly vary in terms of their capacity, probably even more than cities do, their underlying powers and responsibilities are the same. Cities and townships in Michigan have different powers of regulation and taxation and different service provision requirements and expectations. To include both in this study would introduce such a wealth of variation that it would be difficult to draw any conclusions from the case studies.

Growth pressure

To measure growth pressure, I obtained building permit data by township from SEMCOG for the years 2000 through 2006 (the most recent year for which complete data was available) and compared the net number of residential building permits issued[7] with the US Census-reported number of housing units in 2000. Building permits are a good indication of growth pressure because they indicate likely future growth. An increase in building permit applications may contribute to the perception among township officials and staff that growth pressure is mounting, even if the results of those permits are not yet visible.

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[7] I chose to use the net number of units (building permits minus demolitions) because I did not want to characterize as high growth pressure communities in which individual single-family tear-down/rebuilds are common but are the only new construction occurring. These projects typically do not involve changes in zoning or even changes in use, and in many communities do not require approval from the planning commission, only the building department.

Building permits are not necessarily a good indicator of actual growth between Census years, however, since permitted buildings may not be started or completed. This is a particularly strong possibility in Michigan, which as of July 2007 had the highest unemployment rate of any state in the country (Bureau of Labor Statistics, 2007) and the second-largest one-year drop in the housing price index (Office of Federal Housing Enterprise Oversight, 2007).

I identified townships that, had all permitted buildings been completed, would have increased their housing units by twenty-five percent or more over the seven-year period as high-growth-pressure townships. A twenty-five-percent increase in housing units would have an unmistakable effect on the character and service demands of almost any community. Township residents, officials, and staff would likely have an opinion on the prospect of this sort of increase and it is reasonable to think it might affect their decision-making processes. There were fifteen high-growth townships, encompassing a wide range of community sizes (see Table 3.2 below).

Township	County	7-year Total Building Permits	Housing units, 2000 (US Census)	Percentage increase in units, 2000-06, if bldg permits were built
Marion Twp	Livingston	1,149	2,388	48.1%
Macomb Twp	Macomb	8,574	17,922	47.8%
Oceola Twp	Livingston	1,256	2,944	42.7%
Northville Twp (Ch)	Wayne	3,156	8,480	37.2%
Brownstown Twp	Wayne	3,195	9,008	35.5%
Conway Twp	Livingston	304	919	33.1%
Hartland Twp	Livingston	1,274	3,908	32.6%
Iosco Twp	Livingston	314	964	32.6%
Lyon Twp (Ch)	Oakland	1,309	4,065	32.2%
Washington Twp	Macomb	2,356	7,317	32.2%
Oakland Twp	Oakland	1,448	4,529	32.0%
Genoa Twp (Ch)	Livingston	1,926	6,346	30.3%
Howell Twp	Livingston	563	1,993	28.2%
Van Buren Twp	Wayne	2,745	10,417	26.4%
Superior Twp	Washtenaw	1,060	4,097	25.9%

Table 3.2: High growth pressure townships

Townships that, based on building permits granted, would have experienced a single-digit increase in housing units were classified as low-growth-pressure townships. There were 42 low-growth-pressure townships; this group also included quite a range in number of housing units. Of the low-growth-pressure townships, fifteen experienced very low growth pressure, with building permits potentially adding less than six percent to the township's housing units in 2000. I focused on these lowest fifteen since it allowed me to draw from the same size pool as the highest growth pressure townships. It is likely, of course, that actual growth rates in both these and the high-growth townships were lower than the building permits issued would indicate.

Township	County	7-Year Total Building Permits	Housing Units, 2000 (US Census)	Percentage increase in units, 2000-2006, if bldg permits were built
Plymouth Twp	Wayne	651	11,043	5.9%
Ash Twp	Monroe	171	2,942	5.8%
Casco Twp	St. Clair	94	1,717	5.5%
Ira Twp	St. Clair	156	2,871	5.4%
Freedom Twp	Washtenaw	33	612	5.4%
West Bloomfield Twp (Ch)	Oakland	1,137	24,410	4.7%
Waterford Twp (Ch)	Oakland	1,262	30,404	4.2%
Erie Twp	Monroe	78	1,917	4.1%
Clay Twp	St. Clair	200	5,325	3.8%
Ann Arbor Twp (Ch)	Washtenaw	65	2,034	3.2%
Dundee Twp	Monroe	73	2,498	2.9%
Grosse Ile Twp	Wayne	123	4,335	2.8%
Lenox Twp	Macomb	71	2,646	2.7%
Bloomfield Twp (Ch)	Oakland	238	17,455	1.4%
Redford Twp (Ch)	Wayne	185	20,605	0.9%
Royal Oak Twp	Oakland	14	2,595	0.5%

Data sources: SEMCOG (building permits) and US Census 2000 (housing units)

Table 3.3: Low growth pressure townships

Planning capacity

Determining townships' planning capacity was somewhat less straightforward than determining their growth pressure. Here, planning capacity refers to the resources available to a community with which to plan. The concept of planning capacity is

discussed in more detail in Chapter 2. I used three variables: millage rate, number of professional planning staff, and years since last master plan update, to gauge general planning capacity. General law townships are required to provide very few services. I hypothesize that citizens of a township with a higher millage rate have voted to tax themselves to provide services at a level above what is required, and more sophisticated planning services might be part of the citizens' expectations. A higher millage rate certainly does not automatically mean that more money goes to planning, but the potential exists.

The number of planners on the township's staff is an indication of the level of professionalism of the department. A common scenario is for a township to have a building department and/or a zoning administrator, but to contract out planning services such as writing zoning ordinances, GIS, and comprehensive planning. The addition of staff with degrees in planning should raise the level of expertise available to the planning commission, and also seems to indicate a higher level of commitment to planning as a township function (Hanna, 2005).

Finally, the number of years since the update of the master plan indicates the township's ability and willingness to comply with state planning statutes. In 2001, the Michigan Township Planning Enabling Act and Municipal Planning Enabling Act were amended to require cities and townships to evaluate their master plans every five years in order to determine whether or not they needed to be updated. In practice, this has meant that most communities update their plans every five years. To decline to do so means that essentially the community is claiming that nothing important has changed in the community over the past five years and all goals for the future are the same as well. It is

rare that communities can plausibly make these claims, especially when they are experiencing growth or growth pressure. To have a plan older than five years could indicate that the township does not have the budget to update the plan, which would indicate low planning capacity. It might also indicate that the township is not terribly interested in planning, which would indicate a low commitment to planning.

Creating the planning capacity score

I assigned a score to each of the planning capacity variables, then combined them for a total planning capacity score. Communities with master plans older than five years received a score of 1 for that metric, communities with master plans that were five years old received a 2, and communities with master plans that were less than five years old received a 3. The townships were then assigned a score based on the number of planners on staff (for most it was 0). I did not assign a score for millage rates. Although it makes sense to break townships into categories by millage rates of less than and greater than 1.0, since this is the highest millage a general law township can impose without additional voter approval, there is no particular reason to make other distinctions (such as high, medium, low) among millage rates.

I eventually came to the conclusion that the most important variable that explained planning capacity was the number of planners on the township's staff. Among townships with no planning staff, there seemed to be a range of planning capacities, but townships with planners on staff seemed to be predominantly high-capacity. The presence of full-time professional planning staff is not just associated with higher capacity, it creates capacity by charging an educated professional with the execution of day-to-day planning tasks and interactions with the public.

To create a final rank order of planning capacity, I first sorted the townships by number of planners, then master plan update score, then millage rate. This approach allowed me to incorporate what I thought was the relative importance of each variable in determining planning capacity, yet did not rely on arbitrary distinctions between "high," "middle," and "low" millage rates. Based on my knowledge of the townships in the sample, I concluded that this ranking generally made sense.

Township	If planners, how many?	Plan update score 1=more than 5, 2=5, 3=less than five years	2003 Millage rate (millage requested to be levied, incl. debt)*
Dundee Twp	0	0	2.6889
Howell Twp	0	0	2.966
Erie Twp	0	0	3.0443
Conway Twp	0	1	2.15
Freedom Twp	0	2	1
Grosse Ile Twp	0	2	12.2298
Clay Twp	0	3	0.5873
Casco Twp	0	3	0.8015
Ann Arbor Twp (Ch)	0	3	0.8042
Plymouth Twp	0	3	0.8173
Marion Twp	0	3	0.8634
Ash Twp	0	3	1.469
Oceola Twp	0	3	1.8045
Iosco Twp	0	3	2.3387
Hartland Twp	0	3	2.7553
Ira Twp	0	3	3.1382
Lyon Twp (Ch)	0	3	4.3
Superior Twp	0	3	5.0663
Lenox Twp	0	3	6.3485
Washington Twp	0	3	6.738
Redford Twp (Ch)	0	3	8.1228
Royal Oak Twp	0	3	11.2033
Brownstown Twp	0	3	12.2548
Genoa Twp (Ch)	1	3	0.8317
Oakland Twp (Ch)	1	3	6.2777
Northville Twp (Ch)	1	3	6.7332
West Bloomfield Twp (Ch)	1	3	8.8719
Waterford Twp (Ch)	1	3	10.4122
Macomb Twp	2	3	3.7789
Van Buren Twp	2	3	9.9245
Bloomfield Twp	3	3	10.3223

*Millage rate source: Center for Local and State and Urban Policy (CLOSUP), University of Michigan
Shaded townships indicate low growth pressure; white townships indicate high growth pressure.

Table 3.4: Townships in order of capacity, lowest to highest

This stratified approach narrowed down the potential cases considerably. It is not surprising that low capacity, low growth pressure and high capacity, high growth pressure townships were somewhat more common than the other two combinations of factors. Low growth pressure, high capacity townships tend to have experienced growth in earlier decades. The professionalized staff is a legacy from a busier era; in some communities the number of staff was greater in past years than it is now. High growth pressure, low capacity townships are in some ways the most interesting. One possibility is that these townships have been inundated with growth over a short, recent time period and have not yet added capacity through hiring professional planning staff. Another possibility is that limited government (and limited government spending on staff) is an important part of the general attitude of the township's citizenry, and until that attitude changes, the township will deal with growth in its own limited-government way. Again, it should be noted that the quality of the work of individual planners does not necessarily vary according to whether the planners are consultants or in-house staff, rather it varies more between firms/communities and individuals, but the fact that the township leadership and constituents at some point found it important to hire their own planner indicates that they place a certain amount of importance on planning.

Growth Pressure	Planning Capacity: Low	Planning Capacity: High
Low	Freedom Twp Erie Twp Dundee Twp	Bloomfield Twp West Bloomfield Twp Waterford Twp
High	Conway Twp Howell Twp	Macomb Twp Van Buren Twp

Table 3.5: Potential case study townships

It was then necessary to determine whether these townships had recently made any decisions regarding major developments. The four townships, one from each cell, that had recently had appropriate projects come before the planning commission were Howell, Bloomfield, Macomb, and Erie. Bloomfield Township planners declined to participate, so West Bloomfield Township, similar in planning capacity and growth pressure to Bloomfield Township, and adjacent to it, was substituted. These case study townships are described in more detail in the following chapter.

Interviews

Interview Subjects and Structure

I conducted between three and four interviews in each of the four case study townships, during the months of November and December 2007, for a total of 13. I initially contacted the township supervisor or planning director in each township by letter, then followed up with a phone call to schedule interviews. In each township my

minimum requirement was to interview at least the planner and one planning commission member, but I was able to interview additional sources in all of the townships.

Each interview subject read and signed an IRB-approved form that explained the purpose of the research and emphasized that the person would be identified by name and occupation in the dissertation text. The interviewees signed a separate consent to be recorded. Most of the interviews lasted approximately forty-five minutes and were recorded, then transcribed. Two of the interviews were not recorded due to the noise level at the location of the interview. An additional interviewee preferred to conduct the interview over the phone. In those three cases, I took notes but do not directly quote the interview subject in the text unless I wrote down a certain phrase verbatim and indicated so with quotation marks in my notes. In a few cases, I needed to clarify a point with an interview subject later. I either did so over the telephone and took notes during the conversation or sent an email and received a written response. Table 3.6 below lists the persons interviewed in each township and their positions.

Township	Interview Subject	Position
Erie Township	Paul Richardson Mike Demski Mark Eidelson	Planning Commission Chair Building Inspector and Zoning Administrator Planning Consultant
Howell Township	Carolyn Eaton Todd Thomas Robert Hotaling	Township Clerk and Zoning Administrator Township Board Member and Planning Commission Rep. Planning Consultant
Macomb Township	John Brennan Mike Koehs Jerry Schmeizer Greg Windingland	Township Supervisor Township Clerk and Planning Commission Representative Planner/Planning Consultant Developer
West Bloomfield Charter Township	Doug Plachcinski Nicholas Lomako Stuart Brickner	Planning Director Planner working with a developer Township Board Member and Planning Commission Rep.

Table 3.6: List of interview subjects

Interview Objectives

I asked each of the subjects about his or her role in the planning process, development trends in the township, how the master plan was created and its role in the planning process, and the approval process for a recent individual project in the township. These interviews can be thought of somewhere between investigative interviewing and elaborated case studies, in which I was primarily interested in finding out what happens during the planning process in a particular township, but also why it happens that way and the broader meaning of the process to the individual and to the community (Rubin & Rubin, 2005). These interviews are also topical, rather than cultural interviews, in which the object is to

> work out a coherent explanation [of the event] by piecing together that different people have said, while recognizing that each person might have his or her own construction of events. The researcher sorts, balances, and analyzes what he or she heard, creating his or her own narrative…(Rubin & Rubin, 2005, p. 11).

This type of interviewing requires the interviewer to assess the validity of each interviewee's statements, looking for biases, and triangulating information gained from multiple perspectives. This was an important reason to conduct multiple interviews in the same township: to expose areas of agreement and disagreement between subjects, to gain information from one individual on a topic where another was reticent, and to arrive at a relatively consistent set of "facts." The areas where subjects differ in their recollection or interpretation of events are often some of the most interesting.

Of course, all interviewing also requires that the researcher be alert to his or her own biases and try to avoid "leading the witness" or summarily dismissing a comment that does not appear to fit the framework. It is important to remember that the interviewer is an "active" participant in the interview and that "all interviews are reality-constructing,

meaning-making occasions, whether recognized or not" (Holstein & Gubrium, 1995, p. 4).

Because I asked many people the same sorts of questions, I was interested in variations in their responses, in the words they used to describe the development process, in which topics they were comfortable talking about and which they preferred to avoid, whether there was any variation in the attitudes of officials and planners between high and low growth pressure townships, or high and low capacity townships. This aspect of the interviews can be thought of as more "cultural" (Rubin & Rubin, 2005, p. 10), where the interviewee's perception of events matters specifically, and the interviewer is trying to find out about the institutions within which the subject operates. In this case, I was interested in learning about the township's culture, specifically its cultural norms around planning.

One risk of interviewing public figures about their public lives is that they will give the "official" answer to a question, or provide answers that will present themselves or their actions in a positive light, de-emphasizing or not mentioning instances of conflict or failure (Rubin & Rubin, 2005, p. 74). I tried to account for this in three ways. First, by talking to multiple informants from each township, I was able to gain a different perspective on an issue if the first interviewee seemed reluctant to discuss it or only wanted to give the "official" position. I also looked for court cases where a judge, an independent third party, gave an opinion on planning in the township. This was primarily important in Macomb Township, where officials' assessment of their planning process differed from the judgment of the court. Finally, my own analysis of planning documents served as a check on the information provided by interviewees. For example, if an

interviewee claimed that the township had had an extensive public participation process for its master plan, yet the plan itself mentioned nothing about citizen input, I would need to follow up with the interviewee to find out why such a process would not have been documented.

Interview Coding and Analysis

In order to identify themes and understand differences and similarities in what people were telling me about the planning process in their communities, I identified concepts that I wanted to look for across all the interviews. I derived some of these concepts from my research question and hypotheses, but some of them were suggested by recurring similar comments made by multiple interviewees (Rubin & Rubin, 2005). The concepts and their definitions as I use them follow:

1. Role of planner: Action taken by a planner, opinion of the planner by an official or developer, situation where planner had influence
2. Citizen participation: Participation in a master plan visioning session or planning meeting, or lack of participation
3. Citizen attitudes toward growth: Officials' or planners' perception of township citizens' attitudes, differences between citizens' and officials' attitudes
4. Role of planning commission: Action taken by planning commission, commissioners' views of their roles and responsibilities
5. Role of township board: Instance of township board being active in the planning process
6. Role of an individual: An individual taking credit or others giving credit for leading an initiative or influencing a major planning decision

7. Government versus market: Officials' or planners' beliefs about the appropriate role of governments and markets in the development process
8. Master plan as blueprint versus master plan as guidelines
9. Utilities: Planning for utilities, the role of utilities in growth, who pays for utilities
10. Growth/development management: Deliberate efforts by government officials and planners to affect the nature and especially the pace of land development. This includes efforts to preserve open space and farmland, and efforts to concentrate density in one part of the community while preserving an undeveloped landscape elsewhere. Norton (2008) points out that the opposite of growth management is still some sort of planning, not an unfettered market. It is important to point out that a community may be pro-growth but anti-land development, if the focus of its growth efforts is increasing density in or redeveloping already settled areas. It is certainly possible to increase the population or economic output of a community without expanding its urbanized footprint.
11. Proactive planning: Evidence of real forethought about an issue likely to affect the township and a reasoned planning response put in place in advance
12. Reactive planning: Instance of the planning commission responding to an issue when brought to its attention by a developer or citizen. This is not necessarily bad planning; however, I suspect that it is much more common than what I call proactive planning.
13. Evidence of capacity: Comment by an interviewee that directly or by my assessment gives an indication of the community's level of planning capacity. This is partly of interest as it pertains to my initial case selection: do the communities that I classified as low capacity present any evidence of that, and vice versa?

Once I had coded all the interviews I entered the relevant sections of text in a grid so I could directly compare results across townships. My analytical approach can best be described as dramaturgical, in that I "focus on people in their roles and on the intentional strategies they have for producing desired understandings or effects" (Feldman, 1995, p. 5). Since I was primarily interviewing public figures about their public roles, the types of questions I asked in the interviews were not designed to probe very deeply into interviewees' internal motivations or private thoughts. This was especially true since I did not offer them anonymity. Still, a dramaturgical analysis not only investigates public acts and process, but the "meaning produced by the act and or the messages that are conveyed by the act" (Feldman, 1995, p. 41). Some of those meanings are revealed by the interviewees, others require interpretation and synthesis by the researcher. In my analysis, which had a comparative bent, I particularly looked for differences between the high growth pressure and low growth pressure townships, and between the high capacity and low capacity townships. I also looked for instances where interviewees from the same township expressed different interpretations of the same event or different opinions on the same subject.

Master Plan and Zoning Code Document Analysis

I began by recording for each master plan all goals related to growth management and farmland and open space protection. I benefited in this analysis from my familiarity with Norton's content analysis approach to plan evaluation (Norton, 2008). He developed an extensive, spreadsheet-based protocol, designed for coding large numbers of plans efficiently. The plans were scored on how well they fulfilled each element of the protocol, then the scores were tabulated.

Evaluating only four plans and zoning ordinances, I took a no less detailed but smaller-scale approach. Beginning with each goal related to land preservation or land development, I looked for supporting goals and objectives and implementation steps in the plan. I noted the text if it was present, or noted its absence. I then looked at the zoning ordinance for evidence that the township had implemented the goals and objectives. Table 3.7 below shows a sample evaluation form for Erie Township's master plan. The form records the goal language, and identifies associated objectives, action items, and any mention of an implementation schedule or specific implementation responsibilities.

Goal	Goal Text	Objectives	Specific Action Items	Implementation schedule/ responsibilities	Notes
Farmland Preservation	Actively encourage the continuation of local farming operations and the long-term protection of farmland resources	Designate areas that support long-term farming through zoning	Density of 1 unit per 10 acres in Ag/rural res areas		Text not in goals and objectives that describes potential harm of large lot, strip residential development (p.3-4); actually, a lot of good discussion of the importance of preserving farmland and rural character, and the most common threats to those objectives
		Minimize nuisance problems by limiting encroachment of incompatible land uses			
		Designate important agricultural areas as conservation zones and discourage such areas from evolving as residential growth zones			
		Discourage wasteful consumption of farmland acreage for dwelling sites			
		Assure that development minimizes premature destruction of farmland through responsible site planning	Encourage cluster developments and interior roads		
		Support and maintain P.S. 116 farmland preservation agreements			
		Explore PDR and TDR			

Table 3.7: Plan evaluation protocol for Erie Township's Master Plan: goal of farmland preservation.

GIS Analysis

The objective of the GIS analysis was to identify any nonconformities between the future land use map and the township's current land use. I obtained parcel data for each of the four townships. West Bloomfield maintains its own GIS data. Erie and Macomb Townships do not use GIS in planning, but Monroe and Macomb counties, respectively, were able to provide me with parcel data that they have developed for their own use. Howell Township contracts with Livingston County to provide GIS services, so I obtained the shapefiles directly from the county.

Some of the shapefiles were in a condition to be used right away, others required "cleaning and repair": everything from making sure every polygon was closed to checking parcel divisions with a more recent paper map. For Erie and Macomb Townships, I needed to create shapefiles of their future land use maps, since only paper copies existed. I coded each parcel with the appropriate future land use category. No interpolation was needed since I was only comparing each township against itself.

Oakland County provided current (2007) existing land use data for West Bloomfield Township. For Macomb, Erie, and Howell Townships, I had to create existing land use layers using the 2000 SEMCOG land use/land cover shapefile as a base, updating it with aerial photography. The aerials were taken in spring 2005 by SEMCOG. The map of a small area of Macomb Township, below, demonstrates the quality of the

aerials, and shows parcel lines overlaid with the photograph.

Figure 3.1: Digital orthophotos and property lines

Platted but undeveloped residential lots can be seen in the upper and lower right corners. At the upper left center is a golf course. Large lot residential and some farm fields can be seen along the roads at the top and left edges of the photo. For Howell and Macomb Townships, I also used Google Earth aerials, since in some areas they were more up-to-date. The photo below from Howell Township dates the aerial to probably fall 2005 (it says, "Super Bowl Detroit, MI 2005-06").

Figure 3.2: Establishing dates for aerial photographs

Once I had created all the necessary layers, I compared the future land use maps with existing land use in each township. To do this, I converted the shapefiles to raster format and ran a "not equal" analysis to identify areas of difference. I then noted the type and location of any current use that appeared not to match the township's plan.

When discussing nonconformity between existing and planned land uses, it is important to distinguish between the three different reasons this disparity may occur. The first is outright nonconformity: for example, the plan calls for an industrial use and in fact a new subdivision is being built there. These types of uses would most likely comply with the zoning ordinance, but the rezoning that allowed the use would not comply with the master plan. This type of nonconformity is the most worrisome for planners, since it may signal a disregard for the public planning process, but luckily it is also the rarest.

The second type of nonconformity is a matter of succession: the presence of a grandfathered use in an area planned for a different use, such as a farmhouse on a main

road in an area planned for commercial. In the future, that house may be torn down and replaced with a conforming use. This type of use would probably not be in compliance with its zoning district: a true nonconforming use. This type of nonconformity does not indicate that the planning process is breaking down.

The third type could also be thought of as an issue of succession, in which the current land use is agriculture or a natural area, but the land is planned for a more intensive use. For example, in Macomb Township, there is a significant amount of agricultural activity still taking place, yet there are no planned agricultural areas in the master plan. If land prices rise, farmers retire, and the market for new housing is strong, most of those farms will be developed as medium density residential. Although these types of nonconformity do not necessarily represent breakdowns in the planning process, it is worth considering whether current agricultural and natural areas should be mostly or completely planned for development.

Conclusion

In this dissertation, I seek to leave no stone unturned in examining the township planning process from plan to implementation to enforcement. By choosing case studies that vary along the axes of growth pressure and planning capacity, I hope to gain an understanding of the strength and direction of the effects of those characteristics. By conducting three types of analysis based on three separate data sources, I develop a detailed picture of the local planning process, and the instances where it appears to break down. If we are to understand how low density, land-intensive development continues to take place at the periphery, despite national and local talk of "smart growth", we must understand who is planning for sprawl, how, and why.

Chapter 4

Planning Context

This chapter describes the geographic location, existing land use, and demographics of each of the four case study townships. It also sets each township's planning context for the analysis in subsequent chapters. Planning context includes several elements: the township's planning capacity; officials' attitudes towards planning, growth, and growth management; and current master plan goals and zoning text, which make up the vision and the regulation guiding land use decisions. For this study, I focus specifically on goals having to do with growth management, farmland or rural character preservation, and environmental protection. To make a judgment as to how well the case study townships' land use outcomes conform to their plan goals and maps, we must first have a clear understanding of what they are planning for.

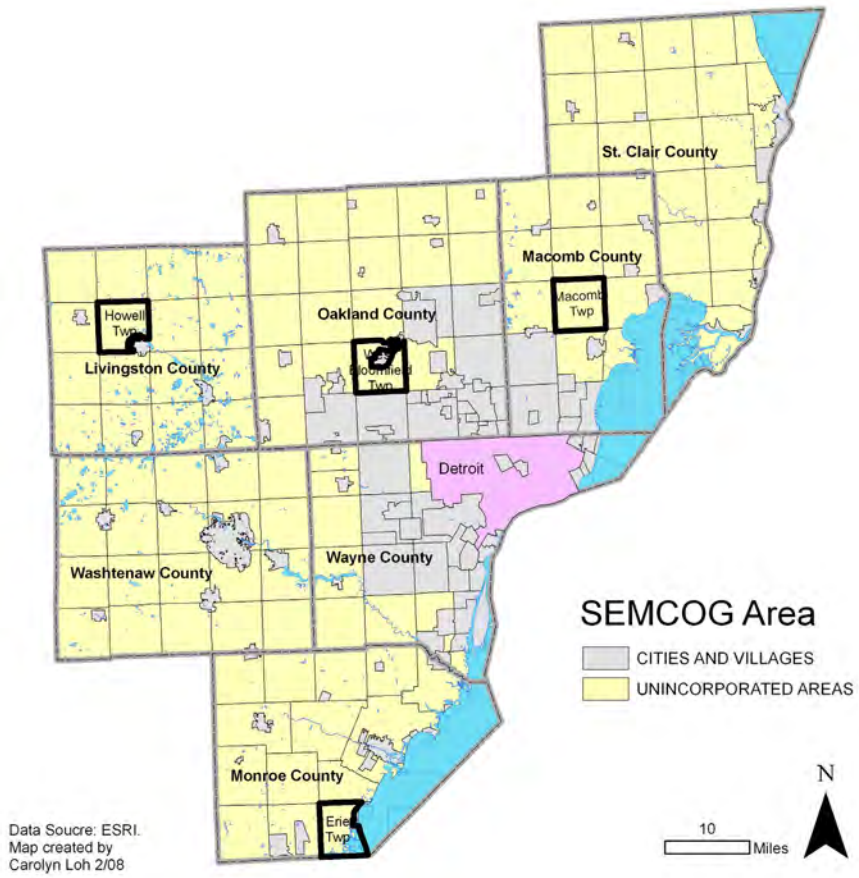
Case Study Township Demographics

The townships were selected partly because of differing rates of growth and growth pressure, but they also differ significantly in population size. As of the 2000 US Census, Howell and Erie Townships had about 5,000 residents each, while West Bloomfield had about 65,000 and Macomb had 50,000. During the period from 2000 to the first part of 2008, the Southeast Michigan Council of Governments (SEMCOG) estimates that Erie lost population, West Bloomfield's growth was negligible, Howell grew by 17%, and Macomb grew by 49%. SEMCOG expects Howell's rate of growth to

speed up over the next 25 years or so, Macomb's to fall, and Erie and West Bloomfield to add small numbers of residents.[8] The seven-county SEMCOG region is expected to grow by only 3.4%, which makes Howell and Macomb's growth at the fringe all the more significant.

Township	Population, US Census 2000	SEMCOG population estimate 4/2008	Estimated percentage growth, 2000-2008	SEMCOG population forecast, 2035	Forecast percentage growth, 2000-2035
Erie	4,850	4,715	-3%	5,002	4%
Howell	5,679	6,630	17%	10,052	77%
Macomb	50,478	75,018	49%	88,015	74%
W. Bloomfield	64,860	65,254	0.6%	70,617	9%

Table 4.1: Case study township population and growth estimates



Map 4.1

[8] SEMCOG uses a three-step method to forecast households, and extrapolates population from those numbers (Liu, 2008).

As a wealthy, west-side suburb of Detroit, West Bloomfield Township stands out from the other three townships in terms of its racial composition (higher minority percentage), its higher median household income, and its much higher percentage of residents with a bachelor's degree or higher. In 2000, Erie Township had the lowest median household income and lowest educational attainment of the four townships. Erie Township residents also had the lowest mean travel time to work. Erie's employment location data indicate that Erie's economy is oriented less toward metropolitan Detroit, and more toward Monroe, Michigan and Toledo, Ohio, both of which are closer to Erie than Detroit is (SEMCOG, 2008a). Howell Township's slightly higher mean travel time to work may be explained by its position approximately halfway between Lansing and Detroit: Howell Township residents may travel to both metro areas for employment. It is not possible to definitively conclude this from the SEMCOG employment data, however, since it does not include Lansing as a possible employment destination (SEMCOG, 2008b).

Township	Percent white, 2000 (SEMCOG)	Other significant racial/ ethnic groups	Median household income, 1999	Percent w/ bachelor's degree or higher	Mean travel time to work (minutes)
Erie	93.1%	Hispanic 4.3%	$52,442	13%	23.2
Howell	97.0%		$63,114	19%	31.1
Macomb	95.0%		$72,319	22%	29.0
W. Bloomfield	83.2%	Black, 5.1%; Asian 7.8%	$91,661	55%	29.0

Table 4.2: Case study township demographics

Existing Land Use

Erie Township

Erie Township's existing land use composition is primarily farming with some residential development via lot splits. There are a few areas with larger subdivisions, and a small area of dense commercial and residential development known as Erie Village. Along the Lake Erie shoreline is a hunting preserve, an area of dense cottage development, and the Lost Peninsula Marina. To the south of Erie Township is the city of Toledo, Ohio. Erie's existing land use is shown on Map 5.1

Macomb Township

Urban uses currently occupy about 65% of Macomb Township's land. The remaining 35% is made up of agriculture and open space. Since Macomb is growing so quickly, I consulted two sets of aerials when creating the existing land use layer, shown on Map 5.3. The SEMCOG aerial was from 2005 and the Google Earth aerial was, in some cases, more recent, although it was not possible to tell the exact date the aerial was flown. Differences in land use between 2005 and 2008 were striking; for example, a large parcel with a farmhouse in 2005 gave way to a graded tract with an empty ring of trees on the site of the old farmhouse in 2008. Land cleared for commercial development showed fully operational stores by 2008. Large areas of woodland had been converted to AG by 2008, possibly in preparation for further conversion to residential. New schools had been built. Since the rate of new housing construction has slowed all across the country, but especially in the Midwest, these farming areas may remain undeveloped for a few more years.

Howell Township

Almost 40% of Howell Township's land is currently used for agriculture. Another 35% is single family homes on larger lots of two acres or more. There is some commercial and higher density residential development, as well as the airport, around the City of Howell, in the southern part of the township. Howell Township's existing land use is shown on Map 5.5

West Bloomfield Township

West Bloomfield Township is almost completely built out. Its existing land use primarily consists of single family homes (around 55%) and recreation/conservation uses (around 18%). The recreation uses are mainly located around the Township's many small lakes. There is a small area (about 1.5 miles long) of strip commercial and office at the southern end of the township, and some commercial uses on the township's western border. West Bloomfield's existing land use is shown on Map 5.6.

Planning Capacity

The planning structure of the four case study townships varied considerably in terms of the roles of staff and consultants, and the strength and nature of the relationships with the consultants. The planning structure of the townships contributed in large part to their relative planning capacity. For example, the highest capacity township, West Bloomfield, has a full time planning director. The lowest capacity township, Erie, has a tenuous relationship with its consultant.

Erie Township

Erie Township appeared to have the lowest planning capacity, and interviews and analysis bore out that initial assessment. The township updated its master plan "three times in twenty years" (which is not that infrequently for such a rural township) (Richardson, 2007, p. 2), but previous versions of the master plan were "really quite simple; I mean I want to say it was four or five pages. It was very general" (Richardson, 2007, p. 8). To conduct the most recent master plan update, the township hired a consultant, Mark Eidelson, who helped them write a thoughtful master plan that seemed well tailored to the community, albeit without any community input. After the related zoning ordinance update was complete, Erie broke off ties with the consultant for several years, in order to save money (Eidelson 2007, 3; Richardson 2007, 11).

The day-to-day zoning tasks are carried out by the building inspector and zoning administrator, Mike Demski. Erie planning consultant Mark Eidelson said that he thought that in the interim between master plan updates, little or no planning (as distinct from zoning) was occurring (Eidelson 2008, 5). Lending support to this statement, neither the planning commission chair nor the zoning administrator expressed much familiarity with the plan. Paul Richardson, the planning commission chair, expressed concern that the planning commission was "a little too reactive" rather than proactive around planning issues (Richardson 2007, 6).

Since Erie experiences very little development pressure, an occasional phone call to the consultant Mark Eidelson is typically sufficient to deal with planning issues that arise. Mr. Eidelson was able to provide help creating a future vision of a still rural township for the master plan and writing the ordinance amendment that would help

implement it. In some ways, it seems that Erie has just about the amount of capacity it needs at the moment. However, the fact that the ordinance was later repealed can be attributed in part to a lack of willingness on the township's part to expend the resources for a true public participation process.

Howell Township

Howell Township gives off an aura of professionalism, with its attractive new township hall and well-organized filing system. Its Township Board/Planning Commission Liaison, Todd Thomas, is a Master Citizen Planner through the Michigan State University Extension (MSUE). Commercial development keeps the tax base strong (Eaton 2007, 32). However, Howell Township's master plan is weak in that it presents many alternatives instead of setting out a clear vision, and the most recent update did not revisit goals and objectives or background data, merely "updating" maps (Eaton 2007, 4). The township board does not attempt to negotiate with developers on who will pay for new utilities. The township also has to choose carefully on which zoning code violations they will pursue legal action, since attorney fees can be a severe drain on the township's finances (Eaton 2007, 19). In evaluating each township on its own terms, it is difficult to judge the township and its planner's laissez-faire approach to planning as a capacity issue, since it may be a deliberate choice. However, the planner asserts that he wrote the zoning ordinance so that the township could do whatever it wanted, (Hotaling 2007, 1), suggesting that the township may not be engaging in a consistent, fair planning process. Although he may believe that government should be the servant of the market, in this case by making the zoning ordinance vague he has helped consolidate power in the hands of the government bodies that make land use decisions.

Macomb Township

Macomb Township initially appeared to have very high capacity for a township, and in many ways this is true. It has two planners on staff, the most of any of the case study townships. The planners, however, work part time and are retired from their previous jobs of many years in a neighboring city's planning department. The township supervisor pointed out that although the planners' forty-plus years of experience was an asset, they were sometimes uncomfortable with innovative planning ideas, such as PUDs. The township has removed PUDs from its ordinance because it couldn't get "independent administration" of the projects (Brennan 2007, 6). Planner Jerry Schmeizer expressed some discomfort with the new TND regulations in the Macomb Town Center area, saying they are "trying to redo what we spent 50 years undoing" (Schmeizer 2007, 21). In other words, planning in the second half of the Twentieth Century dismantled the old urban forms of the small, dense town and the large, dense city, and neotraditionalists are now trying to recreate those forms. Officials also said that the planning commission had a difficult time administering the MTC regulations, because the regulations were so different from what they were used to, so much so that the responsibility for overseeing projects in that part of the township was turned over to a separate committee (Koehs 2007, 23). Macomb has also contracted with a separate consulting firm to administer development in the MTC. Jerry Schmeizer referred to himself and his partner as "general practitioners" and the other consultants as specialists who "do a fine job of doing what we can't do" (Schmeizer, 2007, p. 22).

Clerk and PC Liaison Mike Koehs mentioned that all but one of the planning commission members has attended the MSUE Citizen Planner program, and that the

township makes use of the Michigan Township Association's archive of ordinances when they need to write a new one (Koehs 2007, 6; 27). The township also held a charrette, which is a relatively sophisticated and intense public participation method, to educate the public and gain feedback on its Macomb Town Center plan.

With the enormous amount of growth Macomb Township continues to experience, it would be a good candidate for using innovative and sophisticated planning and zoning techniques to create a community of high quality development and significant natural and recreational areas. Although there is strong leadership by the township supervisor around the MTC, the rest of the township's zoning lacks even the flexibility of a PUD option, and the master plan provides little specific guidance aside from endorsing the uniform medium-income suburbanization that has characterized development thus far. In this sense, the township's capacity is low relative to its current needs.

West Bloomfield Township

West Bloomfield Township is the most populous and longest developed of the four case study townships, so it might be expected to have the highest capacity. Since its building boom is over, though, the township has just one planner on staff. It is his opinion that township regulations were spottily enforced in previous years (Plachcinski 2007, 2). In addition, there were some significant problems with the most recent master plan update (before the current planning director was hired), which led to the end of the relationship with that planning consultant and "repair work" by the new planning director and the planning commission (Lomako 2008, 7; Plachcinski 2007, 3).

However, community capacity is high. Planning consultant Nick Lomako, who worked for the developer of a recent large hospital project in West Bloomfield, said that

in his recent experience, "the host community might not be as fully engaged as…West Bloomfield was in the process. I mean they deserve a lot of credit for really doing a lot of homework and detailed analysis" Lomako 2008, 12). Mr. Plachcinski pointed out that the planning commission is very engaged in the development process and "relies on a very personal relationship with the applicant […] our planning commission is very comfortable with the idea of new things. They just want to be comfortable with the person who's delivering it" (Plachcinski 2007, 13). This emphasis on personal relationships may be interpreted as a lack of professionalism, although it is worth pointing out that human nature dictates that personal relationships influence the work of most local governments to some degree, in cities as well as in townships.

It seems that with West Bloomfield Township's rate of growth, which is very low, its planning needs can mostly be met by one dedicated and organized staff member. His interest in redevelopment and in providing for the housing needs of different types of households bodes well for future planning and development efforts. The master plan process, however, was not terribly successful and the resulting document is difficult to use in practice. In this case, when the township contracted out to increase its capacity, the tactic did not work well.

Growth/Growth Management

One of the premises that began this dissertation was that some local governments are attempting to engage in growth management and agriculture and open space preservation, with varying degrees of success, and others are not. The hope was that analysis would show differences in land use outcomes between pro-growth and growth-management oriented townships. The truth is that there is very little growth management

occurring in the four case study townships. The only one of the four case study townships that even professes to be interested in growth management is Erie, and even that may be more lip service than substantive political commitment.

Erie's interest in growth management stemmed from watching nearby communities' struggles with development pressure. Planning Commission chair Paul Richardson said "[Neighboring Bedford Township] can't really handle the huge urban sprawl that's happened there. And the developers just basically had their way with all the land over there. Most of the farmland's gone. So we didn't want to go that far" (Richardson, 2007, p. 4). Township residents have also expressed a desire for Erie to remain rural, although farmers still want to be able to subdivide and sell their land for development (Richardson, 2007, pp. 4-5). However, as will be discussed in more detail in subsequent chapters, Erie reversed its one major attempt at agricultural preservation (Eidelson, 2008, p. 12).

On the side of encouraging particular kinds of growth, Erie Township created a waterfront commercial district, hoping that someone would redevelop a marina there that had never fully gotten off the ground. Township officials "went to bat" for the developer of the Lost Peninsula Marina with South County Water and the City of Toledo, so that the development could be served with water (Demski, 2007, p. 17). However, despite this development, and even without formal growth management policies in place, the lack of sewer and water in the township will continue to help Erie fend off development at least for the foreseeable future.

West Bloomfield Township has entered an era of redevelopment and maintenance, rather than growth. Although it accommodated a great deal of growth in the

past few decades, West Bloomfield does have a reputation for being environmentally conscious with its ordinances (Lomako, 2008, p. 3). Planning Commission Chair Stuart Brickner said, "We have fought like heck to keep our lake quality[…] our master plan and ordinances are in place to preserve these critical environmental features" (Brickner, 2008, p. 4). Doug Plachcinski expressed concern, though, that there is a weak correlation in the township between density and public improvements (Plachcinski, 2008).

West Bloomfield's current stance is pro-development in the context of fulfilling the master plan and redeveloping areas that are not being used to potential. For example, West Bloomfield Hospital is on a site designated for medical facilities on the master plan, so in this case the wishes of the township and the developer (in this case, Henry Ford Health System) were aligned. During the site plan approval process, township staff and the hospital's planning consultant worked together to tailor the site screening guidelines to the specific natural features of the hospital site (Lomako, 2008, p. 10).

Officials in Howell and Macomb Townships are the first to say that they are pro-growth. Macomb Township Supervisor John Brennan originally ran for office on a pro-growth platform (against an anti-growth candidate) and won (Brennan, 2007, p. 2). Agricultural preservation is not a goal of the administration (Brennan, 2007, p. 31), although Clerk Mike Koehs hints that the township sometimes felt its hands were tied by state regulations: "But now local control we may have been more preservationist minded. You know what I'm saying? In allowing some of the development that's gone on, if we had been able to" (Koehs, 2007, p. 5). The township's priority in terms of open space preservation is acquiring and developing parkland (Koehs, 2007, p. 4).

Howell Township seems to welcome most development, and views government as the servant of the market (Hotaling, 2007, p. 1). This attitude was shared by the two officials I interviewed, and was reinforced by their longtime planning consultant. For example, the township created new Special Assessment Districts (SADs) for sewer and water in response to demand from developers (Thomas, 2007, p. 16). Officials did not attempt to negotiate with developers on who would pay for infrastructure costs, believing that they could be sued if they did not provide utilities (Eaton, 2007, p. 5; Thomas, 2007, p. 5). These SADs for sewer and water in part drove the master plan update, where the maps were redrawn to reflect higher densities in the areas to be served by utilities (Thomas, 2007, p. 5). Howell Township Clerk and Zoning Administrator Carolyn Eaton said,

> The Township, we're not against growth at all. We want it to be structured and that's why we just updated our Master Plan, too, to add some more areas along the M-59 corridor and Grand River to encourage more businesses along there […] and we have a lot of water and sewer districts in and if we don't have growth, those districts cannot be paid for, so growth is important. (Eaton, 2007, p. 4)

Howell seems to be trapped in a paradoxical situation. The township creates SADs, which they believe they must do to accommodate growth, but the SADs require a certain number of connections to be paid for. There does not seem to be any discussion in the township about limiting these service areas. Open space preservation is not a priority for Howell Township, as was mentioned in the master plan discussion. However, several recent residential developments in Howell Township have been PUDs, which require some open space (Eaton, 2007, pp. 23-24).

Master Plan Goals and Objectives

Township planning often involves a great deal of inertia. The township's form at the time of the first plan may essentially be preserved in amber through decades of plan updates, with developed areas getting a little larger each time. For example, Howell Township's 2008 Master Plan is explicitly based on its 1982, 1996, and 2001 plans. In fact, the 2008 plan text has not been changed since the previous plan update in 2001; only the maps have been "updated." Each plan is a layer building upon the previous one. This layering should not be confused with a deliberate strategy of incrementalism (Lindblom, 1959), but is rather the truncation of a process that aims for comprehensiveness.

If the township is growing slowly, or not at all, this planning approach has few immediate consequences, and the disincentives for starting from scratch and opening the process to major changes are many. A more elaborate process takes more time and more money, a resource in short supply for many townships. Attempting to involve the public meaningfully in the planning process, through visioning sessions or focus groups, can be frustrating (Eaton, 2007, p. 9) and the type of input that participants give may not be what township officials expect or think best for the community. For example, residents may be too focused on the value of their own property to evaluate an alternative in light of its benefit to the entire community, or may conceive of an elaborate and expensive economic development scheme that lacks the support structure it would need to succeed.

As the community grows, however, planning-as-layering may present some real disadvantages. If, every few years, the future land use map is updated to reflect slightly more residential development in formerly agricultural areas, the rural sprawl and strip commercial development that ensues is practically foreordained. It would take a radical re-thinking of possibilities and priorities for township residents, officials, and staff to

conclude that the outward creep of development into open space and farmland is not inevitable or desirable. On the other hand, a desire to throw out the old and start over with an exciting new plan may backfire if the new plan fails to be as comprehensive as the old one, leaving the planning commission with little guidance for decision-making.

In analyzing the case study townships' plans, I began by assessing the organizational quality and thoroughness of each plan. Then keeping with the approach of this dissertation to evaluate each township's planning outcome on its own terms (in other words, in terms of the presence or absence of "smart growth" principles, did the township get what it planned for?), I recorded for each master plan all goals related to growth management and farmland and open space protection (See Table 4.2 below). The presence or absence of these goals was a good indication of the plan authors' priorities, if not necessarily those of the community at large.

Plan Organization and Thoroughness

Erie Township's master plan, despite being written quickly and with little public input, is quite thorough and well organized. It was written by the Planning Commission and Mark Eidelson, the township's planning consultant. It includes detailed goals and objectives, and thoughtful discussions of the township's current agricultural character and the most likely threats to that character, including widespread large-lot residential development on main roads. It includes specific recommendations to update the zoning ordinance to create an agricultural conservation district. The maps are in black and white, but are comprehensive. Of particular note is a map depicting the large number of farm properties enrolled in the P.A. 166 Farmland and Open Space Preservation Program (Erie Township, 2001 Figure D-2). This program requires that the land remain agricultural for

10 years, in exchange for income tax credits and exemption from special assessments (Michigan Department of Agriculture, p. 1).

Howell Township's master plan is unique in that it presents "plan alternatives" for each section of the township. These include a description of each section's existing land use and the presentation of several alternatives for future development of that section. The level of detail is this section is unusually high; however, the listing of so many alternatives essentially seems to mean that the township has absolute flexibility when making decisions about future land use.

Macomb Township's master plan is organized in an unusual way, in that it is difficult to locate an in-depth goals and objectives section. There are two goals called out as such, one having to do with the location of future industrial uses, and one a suggestion for creating an historical museum (Macomb Township, 2002, pp. 69-70). There are also two "General Goal Statements" that were evaluated as goals for the purposes of this analysis. The plan reserves flexibility in most areas for the township, stating, "For Macomb Township, the fast rise in population, the amount of flood plains and wetlands, need for public services and the expected growth in commercial and industrial activities as well as the development of the 'downtown', must all be ready for departures and changes from the original intentions of the Master Plan" (Macomb Township, 2002, p. 71). This statement brings up the question of the worth of the master plan exercise, if its original intentions are to be ignored.

West Bloomfield Township's master plan devotes most of its attention to redeveloping a township center area. The beginning of the plan contains goals relating to the standard range of subjects dealt with in a master plan, such as housing, commercial

development, and environmental protection (Charter Township of West Bloomfield, 2005, p. 4), but these goals are not substantially addressed at any other point in the plan. In fact, the introduction to the land use plan states that the township's land use composition is majority residential, and "The residential areas of the Township are not likely to undergo any substantive changes in composition over the next 20-30 years. Therefore, this plan focuses on land with development and re-development potential." (Charter Township of West Bloomfield, 2005, p. 76). As I will discuss further in the qualitative analysis section, this lack of detail around residential land use goals has already caused problems for the township.

Erie Township's plan, then, is homespun but thoughtful and detailed. Macomb and Howell's plans reserve the right of flexibility in the future, with Macomb making particularly weak goal statements. West Bloomfield Township's plan is ambitious but lacks practical guidance in some relevant areas.

Plan Goals and Objectives On Growth Management and Land Conservation

Despite the townships' differing attitudes toward growth and growth management, each township's master plan contains at least some goals and objectives relating to these topics. For example, Erie Township, which is the most rural, places the most emphasis on farmland preservation whereas West Bloomfield Township is the only one of the four to make mention of redeveloping already settled areas.

Goal	Erie	Howell	Macomb	West Bloomfield
Farmland preservation	Actively encourage the continuation of local farming operations and the long-term protection of farmland resources (p.2-1)	Encourage farming to continue without the interference of urban type land uses which conflict with it (p.15)	Not mentioned	Not mentioned
Open space preservation	Not mentioned	Encourage the use of open space in all developments for a useful purpose and preserve or conserve natural open space, including wetlands, woodlands, and flood plains (p.16)	Not mentioned	Protect and preserve the unique natural features of West Bloomfield Township, including water resources, wetlands, woodlands, uplands and habitat for native flora and fauna.
Growth management	Manage future growth and development to assure that it is consistent with the natural limitations of the land and availability of public services, the protection of the township's natural resources and rural character, the provision of public facilities and services in a cost-effective fashion. (p. 2-3)	None	"Creation of a healthful environment with low intensity of development for all residents" (p. 69)	None
Rural character preservation	Preserve the dominant rural character of Erie Township, the unique character of its historical development nodes, and its environmental integrity. (p. 2-4)	Preserving and protecting rural residential character (p.16)	Not mentioned	Not mentioned
Densification/ redevelopment	Not mentioned	Not mentioned	Not mentioned	Develop a vibrant and energetic "downtown" center

Table 4.3: Growth management and land conservation master plan goals

Farmland preservation

Erie Township is by far the most rural of the four case study townships and has the strongest language relating to farmland and open space preservation and growth management. Its goal for farmland preservation is to "Actively encourage the continuation of local farming operations and the long-term protection of farmland resources" (Erie Township, 2001, p. 2.1). To accomplish this goal, it advocates the

creation of an agricultural conservation zone and discouragement of other uses. It mentions PDR and TDR, and encourages cluster development. It recommends a density of one unit per 10 acres in the agricultural/rural residential areas (Erie Township, 2001, p. 2.3), with a cluster option.

Howell Township's goal "encourages" farming and discourages infringement. In the related objectives, it mentions "limiting infrastructure development into agricultural areas" (Township of Howell, 2003, p. 115) and "resisting the encroachment of residential and commercial uses into areas planned for agricultural purposes. However, the lowest density recommended by the plan is 0.5 du/a, or two-acre lots. The approval of the proliferation of two-acre lots would do little to resist residential encroachment into agricultural areas.

Macomb Township still has quite a bit of farmland, but it is being used for sod until the infrastructure catches up and it can be developed (Brennan, 2007, p. 33). The master plan does not mention farmland preservation. West Bloomfield Township does not have any remaining farmland; consequently, its master plan does not mention the issue.

Open space preservation

Erie Township does not include a separate goal for open space preservation, although its plan does mention open space preservation in the context of preserving rural character, which is discussed below. Howell Township's plan is inconsistent on the issue of open space preservation. One of its goals is to "Encourage the use of open space in all developments for a useful purpose and preserve or conserve natural open space, including wetlands, woodlands, and flood plains (Township of Howell, 2003, p. 16), yet later in the

plan it states, “Howell Township, being dominantly a rural open land use type of area, does not currently feel the need for open space planning for open land preservation, conservation and use” (p. 188). Given Howell’s generally pro-growth stance, and recent high growth rates, it is unlikely that open space preservation will become a priority before most of the township’s open space has been developed. In addition, the master plan is vague as to what it does recommend, presenting sets of options rather than strong directives. This is to the township’s advantage since it preserves a great deal of flexibility for the township government (Hopkins 2007).

Macomb Township does not address open space preservation in its goals, but it does mention two objectives related to open space, suggesting that stream beds be set aside in the platting process as open space or parkland[9], and that wetlands and floodplains be combined into a “complete recreation system” (Macomb Township, 2002, p. 72) or used as golf courses (p. 18). It also includes a specific recommendation that the township should acquire two 100-acre parcels to be used as township parks (p. 83), and add state-mandated cluster provisions to its residential zones (p. 74).

West Bloomfield Township contains dozens of small lakes; in fact, it was originally settled as a resort community. Aside from water bodies, the township is almost completely built out. Its plan includes a goal to “Protect and preserve the unique natural features of West Bloomfield Township, including water resources, wetlands, woodlands, uplands and habitat for native flora and fauna” (Charter Township of West Bloomfield, 2005, p. 4). Its only suggested implementation steps, however, are requiring stormwater

[9] "Obviously these stream beds must be addressed as part of the platting process and included as part of the planning process and included as part of the lots created. In some instances those portions of the stream beds should be set aside for 'open space' or park purposes”(Macomb Township, 2002, p. 72).

management techniques in the new town center area (Charter Township of West Bloomfield, 2005, pp. 86-87) and requiring native plant species in landscaping (pp. 86, 93).

Growth management

The Erie plan's goal related to growth management contains the strongest and most specific language. It also lists several detailed objectives, including focusing new development in a few areas, while intentionally leaving others rural, discouraging the expansion of sewer and water outside the target growth areas, revising the zoning ordinance to match the future land use plan, requiring new development to pay for public services, and developing relationships with surrounding townships to work toward compatible land uses along borders (Erie Township, 2001, p. 2.3). Howell does not have a goal that specifically mentions growth management, but does recommend "limiting public water and sewer to planned service areas" (Township of Howell, 2003, p. 17) and not overtaxing the road system (p. 18). Macomb's goal for the community to offer a "low intensity of development for all residents" is unspecific and the plan offers no elaboration in the form of objectives or implementation steps. As it is "98% developed" (Charter Township of West Bloomfield, 2005, p. 76), the decades during which growth management would have been a meaningful goal for West Bloomfield have passed.

Rural Character Preservation

Erie, which has the most rural character to protect, includes a goal having to do with preserving rural character, as well as several objectives to accomplish this goal. Erie is unique among the case study townships in that it contains two historically densely

settled areas that are not separate cities or villages, Erie Village and the Lost Peninsula. Erie Village is a crossroads settlement that includes residences, a few businesses, and the township hall. The Lost Peninsula area can only be reached by land through the City of Toledo, and is developed with cottages and marinas. For Erie, preserving its rural character means protecting the character of these areas, as well as the farm fields that make up the rest of the township. The objectives related to this goal suggest that the zoning ordinance, including use, density, height, and bulk restrictions, is the primary tool the township will use to preserve rural character. The plan also mentions conservation easements, land trusts, and density bonuses to encourage the preservation of open spaces, and the establishment of an environmental impact review requirement (Erie Township, 2001, p. 2.4). Howell's plan includes a goal for "preserving and protecting rural residential character" (Township of Howell, 2003, p. 16). To do this, the plan suggests historic preservation and maintenance of older buildings, and "allowing commercial and industrial development uses that do not conflict with the rural character of the township" (Township of Howell, 2003, p. 16). Since Howell Township is already home to some significant commercial development, including the 80-store Tanger Outlet Mall, it would have been helpful for the plan to go into greater detail as to what this second objective might mean. Macomb Township's plan does not address rural character preservation in its goals and objectives, instead stating, "Macomb Township is now losing its rural image as evidenced by an increase in population of 50,478 as of the census of 2000" (Macomb Township, 2002, p. 94). West Bloomfield Township's plan does not address rural character preservation.

Densification/Redevelopment

Neither Erie nor Howell Township's master plan addresses densification or redevelopment. Macomb Township's master plan goals do not mention these issues, but it does state elsewhere in the plan, "The Master Plan also suggests, as did the original plan, to provide a Township Center which could serve as a 'focal' point around which all Township activities can revolve and to serve as an 'identity' (Macomb Township, 2002, p. 71). The development of the Macomb Town Center, which is currently being implemented, is addressed in a separate Town Center Plan, rather than in the general township master plan. As mentioned previously, planning for redeveloping a downtown center is the main focus of West Bloomfield Township's master plan. It includes conceptual drawings of the streetscape and specific recommendations for calming traffic and making the surrounding streets pedestrian friendly. It also recommends incorporating architectural standards and allowing mixed use development.

Zoning Ordinances

The intent sections of a zoning ordinance reveal a great deal about the township's attitude toward growth and the preservation of rural character. The chart below shows the text of the intent section of the Agricultural district for Erie, Howell, and Macomb Townships.

Township	AG intent
Erie	"It is the purpose of the AC (Agricultural Conservation) District to encourage and provide opportunities for agriculture and retention of land areas in the township that are well suited for production of food and fiber, while also providing opportunities for comparatively low density rural residential lifestyles, and development patterns that encourage the preservation of open spaces, agricultural and other natural resources, and the township's rural character. The district boundaries include land areas that support farming operations due to, in part, soil and topographic conditions, the extent of and proximity of nonfarm development, and/or typical parcel sizes. Persons considering residing within this district should be aware that the traditional smells, noises, pesticide applications, and other generally recognized agricultural activities associated with responsible farming will continue on a long-term basis in this district. This district also includes certain land areas that have been divided so as to preclude farm operations, but support opportunities for rural residential development and lifestyles."
Howell	The purpose of this district is to provide for the compatible arrangement and development of parcels of land for conventional residential building purposes in a pastoral, agricultural, woodland or open land areas, that will remain unserved by public water distribution and waste water disposal systems in the foreseeable future and that is more suitable for residential purposes and which can accommodate healthful on-site water supply and wastewater disposal, but which reserves and conserves that land which is most adaptable for present and future agricultural, woodland, natural resource and other extensive land use." (4.01)
Macomb	"The purpose of this district is to (1) provide open land areas for future orderly growth of urban development, continued agricultural use and residential activities of a rural character that are presently without public water and sewage facilities and are likely to remain without such services for an extended period of time and (2) to protect and stabilize the essential characteristics of these areas in order to promote and encourage suitable environments for low density family life, until such time as it may be in the public interest to promote development of a greater intensity requiring higher levels of public services and utilities."

Table 4.4 Agricultural zoning ordinance intent sections

These examples of text from the township zoning ordinances closely match the differences seen in the different townships' master plan goals. Erie's intent section mentions agriculture first, and specifically lists the "smells, noises" and other potential nuisances an inhabitant of this district might face. It gives a justification for the district that is based on the soil and existing development conditions. In fact, the district is called the Agricultural Conservation district (AC) rather than just Agricultural, as is more common. Howell's AG district is meant for residential uses first, with agriculture and

natural areas as a backdrop. Macomb's AG district is a holding category until utilities are extended and the area is developed with residential subdivisions.

Single Family Residential Densities

Despite Erie Township's stated desire in the master plan to create an Agricultural Conservation district, and its strongly worded zoning ordinance intent, the minimum lot size in the AC district is one acre. According to Erie's sometime planning consultant, Mark Eidelson, who wrote the master plan and helped amend the ordinance, when the township created the Agricultural Conservation district it required a 0.1 dwelling units per acre (du/a) density (the equivalent of 10 acre minimum lots). This district included a cluster option with density bonuses for preserved agricultural lands or open space. At some point, the political pressure from farmers to do away with the new provisions became too much for the township board, and they changed the ordinance to a one-acre minimum (Eidelson, 2008, pp. 13-15). The density bonuses remain, as does some language that references the previous lower density provisions.[10] In short, Erie Township has a relatively innovative, substantial Agricultural Conservation ordinance that no longer functions or makes much sense.

Howell's AG district requires a two-acre minimum lot size, or a 10-acre minimum for active agricultural operations. Neither of these districts has sufficient density restrictions in place to maintain the non-fragmented development pattern conducive to

[10] "For example purposes only, an 80-acre AC parcel, developed with 8 dwellings under a conventional plan, could be alternatively developed with 50% more dwellings, resulting in a total of 12 dwellings, provided a minimum of 70% of the parcel is set aside in dedicated open space." (154.214.B.1) An 80-acre parcel would be able to be developed with eight dwelling units if the minimum lot size were 10 acres.

active agriculture (Arendt, Brabec, Dodson, Reid, & Yaro, 1994; Pfeffer & Lapping, 1995, p. 85). The Macomb Township AG lot size is one acre.

For other residential districts, Erie Township's maximum densities are 1 du/a without sewer. This effectively means that the entire township has one-acre minimum lot size zoning. Howell Township's zoning ordinance has two residential districts, with densities of 2 du/a and 3.6 du/a. Macomb Township's residential districts range in density from roughly 1 du/a to 5.18 du/a. Macomb Township calculates density using gross acreage, which is somewhat unusual, so its residential subdivisions appear denser than the numbers suggest. West Bloomfield's least dense residential district allows approximately 1.5 du/a, and its densest allows 4.4 du/a.

Township	Agricultural district (AG) lot size	AG density	Residential-1 district (R-1 or RA) lot size	R-1 density	Other residential densities
Erie	Agricultural Conservation =43560	1 du/a (note that R-1 has a 150 ft min lot width and AC has 125 ft.)	43560 (all R districts except for MHP are 1 acre w/out sewer	1 du/a	1 du/a without sewer (most of Erie does not have sewer)
Howell	2 acres for residences; AG operations have 10 acre minimum	0.5 du/a	RA= 1 acre w/out sewer and 1/2 acre w/sewer	2 du/a	RB= 1 du/a w/out sewer and 3.6 du/a with sewer (12,000 sq. ft.)
Macomb	43560	1 du/a	40,000 w/out sewer, 8400 w/sewer and water	roughly 1 du/a—5.18 du/a	TND: 3.75 du/gross acre if buildings comply with Vernacular Style Standards of Architecture Code (10.2505 B)
W. Bloomfield	No AG	n/a	R-30=30,000	1.452	Smallest is R-10, 10,000 sq.ft. (4.4 du/a)

Data sources: (Charter Township of West Bloomfield, 2008; Erie Township, 2008; Macomb Township, 2008; Township of Howell, 2008)

Table 4.5: Agricultural and residential development densities

Cluster options and PUDs

Erie, Macomb, and West Bloomfield all have residential cluster options. Only Erie gives a density bonus contingent on the percentage of land permanently preserved. Erie's ordinance also grants the planning commission discretion to waive some normal requirements, if doing so "would result in a higher quality of development than would be possible without the modifications" (Erie Township, 2008 Sec. 154.214.A). Although Howell does not have a cluster ordinance, it does have a PUD ordinance that lists "minimize development impacts upon important environmental features" as one of its goals (Township of Howell, 2008 Sec. 27.01). Erie also has a PUD ordinance. West Bloomfield has something called a Planned Subdivision Option, whose differences from the one-family clustering option are slight. Macomb had a PUD ordinance, but it was removed in 2001 (Macomb Township, 2008 Sec. 10.0705).

Conclusion

Of the four townships, Erie Township is the most rural and its plan is the most committed to preserving the rural way of life. This commitment is somewhat undermined, however, by its lack of capacity and disconnects in the planning process, which are discussed in detail in Chapter 6. Erie Township's building inspector carries out the daily nuts and bolts of the implementation process, such as reviewing site plans and answering questions. The township's relationship with its planning consultant, while seemingly positive, is sporadic.

Howell and Macomb Townships still have active agricultural areas, but their attitudes towards growth are very different from Erie's. Howell Township's officials want to accommodate whatever growth the market demands, although since much of the

township is already characterized by low density residential development, future development will be somewhat limited. Macomb Township is in the business of approving growth, as much and as quickly as possible. Both townships' planners are of an older generation that may not be as comfortable with newer planning tools such as PDR/TDR and open space subdivisions.

West Bloomfield Township is the wealthiest and most extensively developed of the four case study townships. Its master plan makes little mention of land preservation, which is not surprising since its efforts at land preservation were concurrent with development over the last 30 or 40 years. Its planning structure is also an artifact of that busier time, but the presence of a full time planning director now serves the township well as it tries to redevelop its aging commercial strip.

These four townships vary significantly in terms of growth pressure, demographics, existing land use, and planning capacity and structure. The next chapter will examine how these differences, especially differences in planning capacity and growth pressure, affect conformance with master plan goals and maps.

Chapter 5

Conformance

This chapter presents the results of the GIS analysis and discusses conformance between master plan goals and objectives and maps and on-the-ground land use outcomes. As discussed in more detail in Chapter 1, I take a conformance rather than a performance-based approach to evaluating plan outcomes. This is partly because of the way township officials talk about their plans, and partly because of how the courts in Michigan use plans in land use lawsuits. Both township officials and the courts tend to see the master plan as the foundation on which zoning regulations and maps are based. Land use decisions that can be supported by referring to the plan's goals and maps are more likely to prove robust in the event of a legal challenge.

The results of the GIS and document analysis indicate that there is widespread nonconformance between master plan goals and future land use maps, and on-the-ground outcomes. This lack of conformance is demonstrated both through comparisons between the future land use and existing land use maps. The causes of these nonconformities can be identified by studying the planning process in depth and identifying disconnects. These disconnects are explored in the following chapter.

It is possible to discern the effects of growth pressure and planning capacity on the continuity of the planning process. Recall the original hypotheses of this dissertation:

Hypothesis 1: Conformance between landscape outcomes and land use plan goals, policies, and future land use maps increases with planning capacity.

Hypothesis 2: Conformance between landscape outcomes and land use plan goals, policies, and future land use maps decreases with growth pressure.

The reasoning behind Hypothesis 1 was that townships with higher planning capacity would have more stable, professionalized planning processes, aided by well-educated planning commissioners and professional planning staff. Township residents would be more involved in government processes, and would notice and complain if there were deviations from plans or ordinances. Although this study found no evidence for a relationship between planning capacity and conformance with the future land use map, there does appear to be a correlation between low planning capacity and deviation from the township's master plan goals and objectives. The qualitative data analysis and plan and ordinance content analysis help us understand why and how this has happened.

Growth pressure was hypothesized to have a negative effect on plan conformance, since townships might make zoning changes that did not fit the future land use plan in response to high demand. In this study, the townships with higher growth pressure had a higher rate of nonconformance between future land use maps and existing land use. Although a large portion of this discrepancy can be explained by the fact that land had not yet turned over to its planned use (such as an existing agricultural area that is planned for residential), some of the discrepancy was the result of dubious decisions by the planning commission and township board.

The Meaning of Conformance

I asked every interviewee whether he or she thought the master plan was more like a blueprint or a set of general guidelines. A blueprint sets out exactly the way something should be done, and it is followed to the letter. General guidelines allow some room for interpretation and flexibility around decision-making. Although a few people seemed not to understand the difference between these approaches in the same way that I did, most of the interviewees seemed to have a similar view of the plan's purpose. Doug Plachcinski, the West Bloomfield Township Planning Director, said,

> The text of the master plan should be used as a policy guideline, and for the most part we do, particularly when we look at the text of our zoning ordinance. The master plan is important beyond the map itself. That being said, our map is parcel based and is very specific, future land use is acceptable in an area and at this point, that has been used as an absolute blueprint for future development. (Plachcinski, 2007, p. 3)

In Macomb Township, Clerk and Planning Commission Board Rep Mike Koehs said, "while it may be called a 'Plan', it's more than that. It has the--the effect of ordinance, really" (Koehs, 2007, p. 16). Most of the interviewees described following their plans to the letter, even when it meant turning down a project that would have benefitted the township (Eaton, 2007, p. 21). Even those who said they believed the plan was more like a set of general guidelines described the function of the plan as describing the locations and types of desired future land uses with a high level of detail (Brennan, 2007, p. 16; Brickner, 2008, p. 2; Thomas, 2007, p. 4).

In Erie Township, though, Planning Commission Chair Paul Richardson and Zoning Administrator Mike Demski see the plan as a more general document, "like a road map but not real specific", as specifics are the territory of the zoning ordinance (Richardson, 2007, p. 7) and the plan is a "continuously evolving" document (Demski, 2007, p. 9). In addition, the plan is a document that officials are not necessarily very

familiar with or use often (Demski, 2007, p. 10; Richardson, 2007, p. 7). Erie's planning consultant, Mark Eidelson, sees attitudes like this as a cause for some concern, as they allow the planning process for any particular project at any given time to be swayed by political considerations, since the plan may not give enough guidance on the subject. In addition, a more specific plan is more likely to be implemented in the zoning ordinance (Eidelson, 2008, pp. 9, 11). West Bloomfield's Doug Plachcinski disagrees, saying, "I think that having a 'blob' map, for lack of a better term, is a lot more appropriate. It provides decision makers some flexibility when they're considering alternatives" (Plachcinski, 2007, p. 10).

Land Use Conformance

GIS land use analysis is a relatively quick and straightforward way to identify and quantify differences between two maps, such as future and existing land use. This analysis gives us a raw percentage, and even tells us the different land uses of the nonconforming areas, but it cannot tell us why certain parcels do not conform. There is still a large role for human interpretation and judgment even in a fairly automated system like GIS. For example, when discussing nonconformity between existing and planned land uses, it is important to distinguish between the three different reasons this disparity may occur. The first (Type A) is outright nonconformity: for example, the plan calls for an industrial use and in fact a new subdivision is being built there. These types of uses would most likely comply with the zoning ordinance, but the rezoning that allowed the use would not comply with the master plan. This type of nonconformity can happen because of a problem of implementation, where the township government approves a use that is in direct conflict with the current master plan, or it may be a problem of plan

making, where the planning commission approves a plan that disregards existing patterns of developed land uses. This type of nonconformity is the most worrisome for planners, since it may signal a disregard for the public planning process, but luckily in this study it was also the rarest.

The second type of nonconformity (B) is a matter of succession: the presence of a grandfathered use in an area planned for a different use, such as a farmhouse on a main road in an area planned for commercial. In the future, that house may be torn down and replaced with a conforming use. This type of use would probably not be in compliance with its zoning district: a true nonconforming use. This type of nonconformity does not indicate that the planning process is breaking down.

The third type (C) could also be thought of as an issue of succession, in which the current land use is agriculture or a natural area, but the land is planned for a more intensive use. For example, in Macomb Township, there is a significant amount of agricultural activity still taking place, yet there are no planned agricultural areas in the master plan. If land prices rise, farmers retire, and the market for new housing is strong, most of those farms will be developed as medium density residential.

Although, like the second type, this last type is not true nonconformity, it is worth considering whether current agricultural and natural areas should be mostly or completely planned for development.

Overall results

Township	Erie (low capacity/low growth pressure)	W. Bloomfield (high capacity/ low growth pressure)	Howell (low capacity/high growth pressure)	Macomb (high capacity/high growth pressure)
Percent of existing land **NOT** in conformance with future land use map	25%	55%* *(38%)	75%	79%

Table 5.1: Percent nonconformance between future and existing land uses

Hypothesis 2 suggests that conformance with master plan goals and future land use maps decreases with growth pressure. The results of the land use analysis support that hypothesis. The high growth townships, Howell and Macomb, had nonconformance percentages of 75% and higher. West Bloomfield's nonconformance percentage was higher than it otherwise would have been due in part to differences in land use coding between the existing and future land uses. If the affected land use category, conservation/recreation, is removed, West Bloomfield Township's nonconformance percentage falls to 38%, which supports the hypothesis that increased growth pressure leads to increased nonconformance.

The primary reason for the high rates of plan nonconformance in the high growth pressure townships is not a scandalous one: succession of undeveloped and lightly developed land has not yet occurred. In Macomb Township, though, there are two other issues at stake. Large areas of residential subdivisions were built at higher densities than the township now allows, and the township was forced to approve a rezoning against its master plan, in part because the court found that it had a history of inconsistency in adhering to the plan. This situation is described in detail later in the chapter. We cannot draw the conclusion that Macomb Township's high growth pressure *caused* its failures to

follow the master plan; however, as detailed above, Hypothesis 2 is supported by the evidence in this study.

Erie

Shown on Map 5.1, the Future Land Use Map is highly generalized and uses geometric shapes to designate areas for future development. It combines the categories of Commercial and Industrial into one. It suggests that residential densities in the Agricultural-Rural Residential areas not exceed .1 du/a. Approximately 25% of Erie's land area is planned for a different use than currently exists on the parcel.

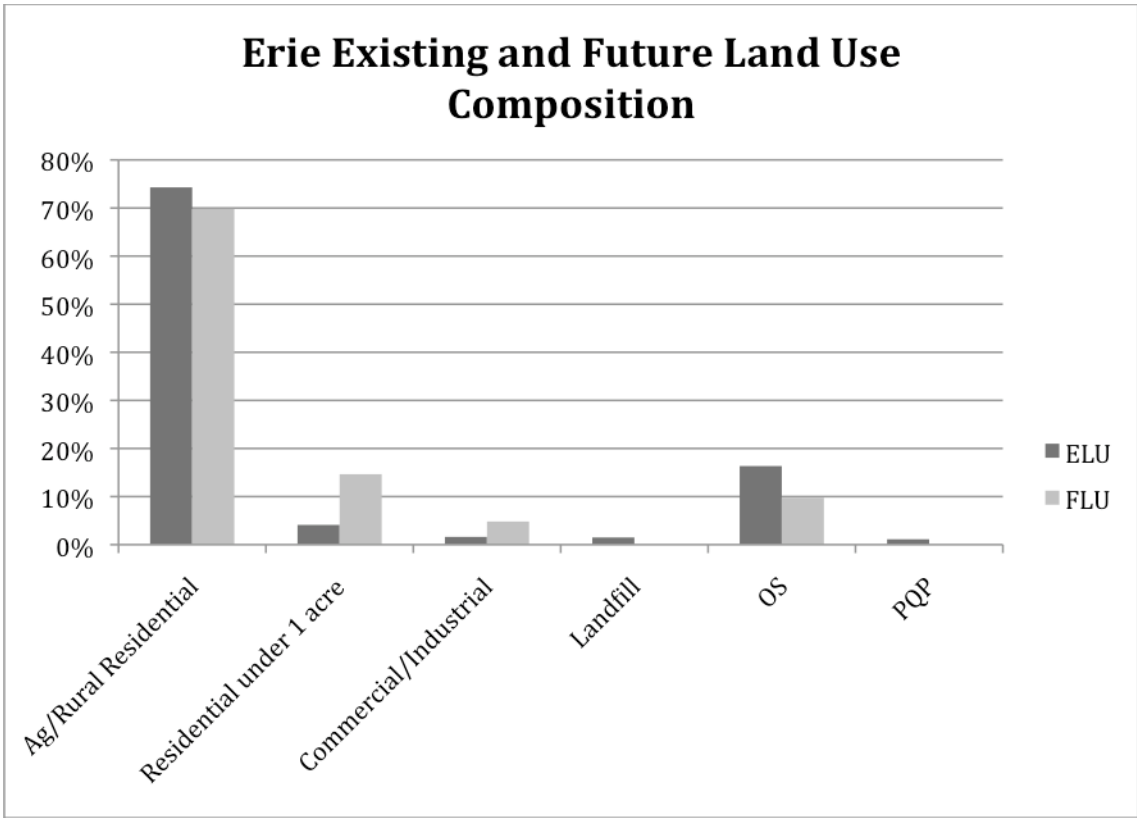
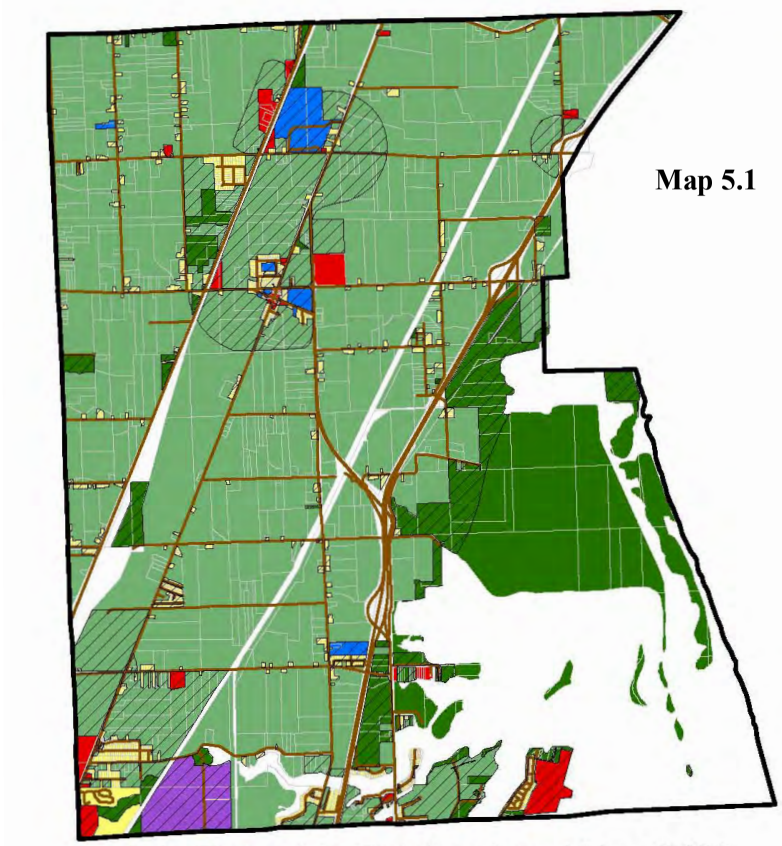


Figure 5.1: Erie Township existing and future land use comparison

About 13% of this land is currently used as agriculture or large lot rural residential. About 7% of the nonconforming land is currently open space: woodland, wetland, or scrubland. Unless preserved as a park or through the use of a conservation

easement, these uses are merely placeholders for future development. Therefore, although the loss of these natural areas might be regrettable, they cannot really be considered nonconforming. There are areas along the Lake Erie shore planned for conservation; however, there is quite a bit of existing woodland that is planned for future development. So, 20% out of the total 25% of the nonconforming land can be described as Types B and C nonconformities. We expect to see these types of nonconformities when looking at future land use maps of lightly developed communities: most of the areas planned for uses other than agriculture will appear as nonconformities.



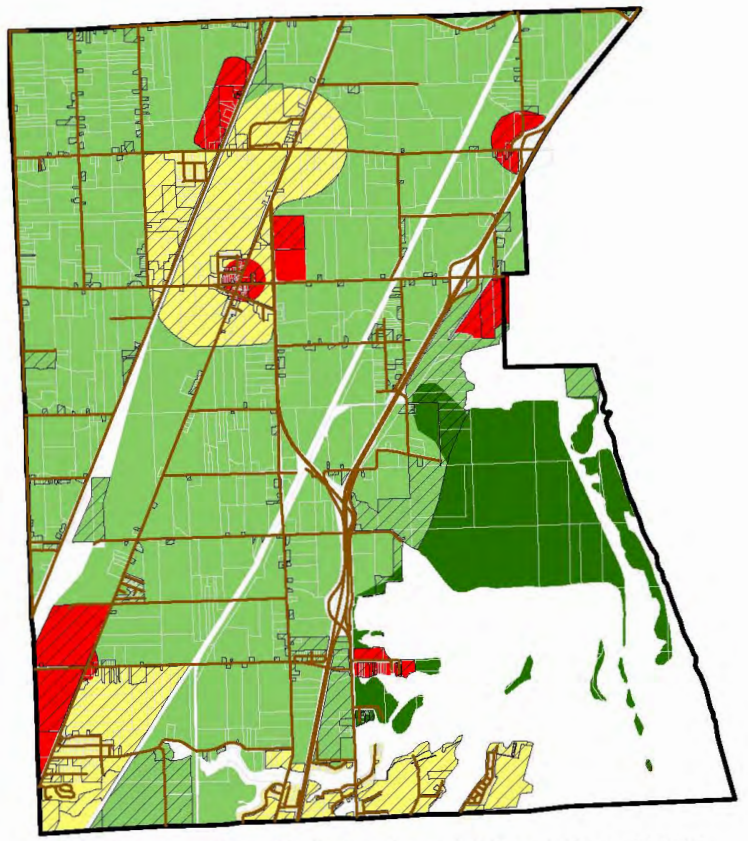
Erie Township Existing Land Use 2005

AREAS OF DIFFERENCE
AGRICULTURE
RESIDENTIAL
COMMERCIAL
INDUSTRIAL
OPEN SPACE/RECREATION
PUBLIC/QUASI-PUBLIC

1 Mile

N

Map 5.1

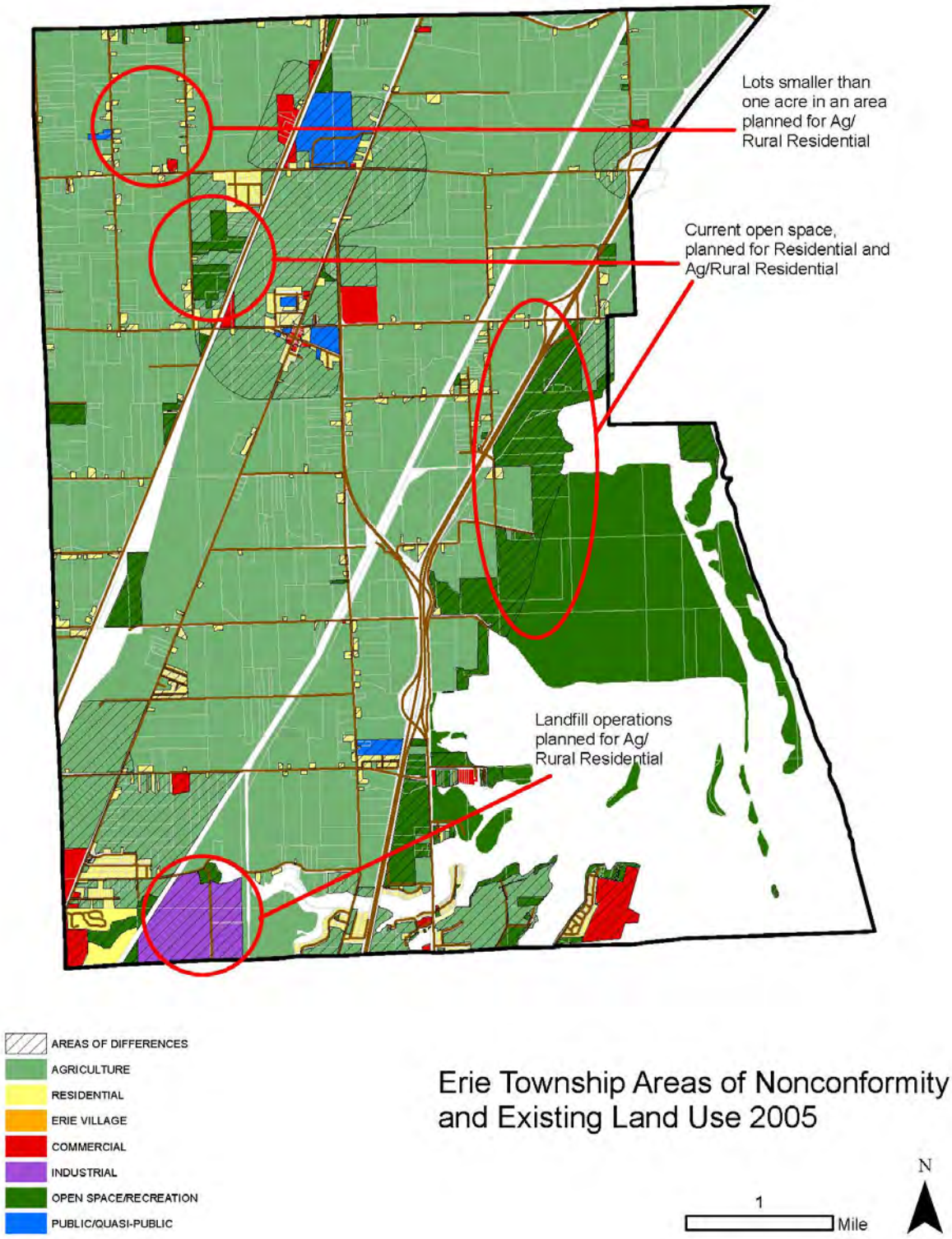


Erie Township Future Land Use Map 2001

AREAS OF DIFFERENCE
AG/RURAL RESIDENTIAL
COMMERCIAL/INDUSTRIAL
CONSERVATION
RESIDENTIAL

1 Mile

N


Lots smaller than one acre in an area planned for Ag/ Rural Residential
Current open space, planned for Residential and Ag/Rural Residential
Landfill operations planned for Ag/ Rural Residential
AREAS OF DIFFERENCES
AGRICULTURE
RESIDENTIAL
ERIE VILLAGE
COMMERCIAL
INDUSTRIAL
OPEN SPACE/RECREATION
PUBLIC/QUASI-PUBLIC
Erie Township Areas of Nonconformity and Existing Land Use 2005
N
1
Mile

Map 5.2

Also quite common in Erie Township are very small lots, less than one acre in size, in the area planned for Agriculture/Rural Residential. These areas are pointed out on Map 5.2. Around 2% of the land can be classified this way. Many of the splits are probably old, and carve out a small area around a farmhouse. However, there are enough lots that are smaller than one acre so as to indicate a trend that could be difficult to deal with in the future, if development pressure increases.

The other approximately 4% of Erie's total land that is nonconforming can be attributed in part to existing commercial uses that are outside planned future commercial areas, and discrepancies between my own coding and the actual land use on the ground. For example, I coded churches and VFW halls as Public/Quasi-Public uses. Most master plans do not plan for these types of uses; they are simply permitted in certain districts, often in residential districts. The planned and current uses appear to be nonconforming, when actually there is no conflict. The only other area of discrepancy is the landfill, which is planned for rural residential. The plan mentions the landfill specifically, stating that "the site will be largely restricted to a passive recreation or other open space use not out of keeping with the intended character of the Agricultural-Rural Residential Area" (Erie MP 3-4).

On the whole, Erie's Future Land Use Map, in relation to the township's existing land use, presents few true discrepancies. There are two areas of concern. The first, as mentioned above, is that there are already a significant number of small residential lots in the planned Agriculture/Rural Residential area. The second is that so much land should be planned for higher intensity uses in a township with very little growth pressure. Almost 3,000 acres of land currently classified as Agriculture/Low Density Residential or

Open Space are planned for higher intensity uses. If preserving agriculture and rural character is important to Erie residents, as the master plan and interviews suggest, the Future Land Use Plan map should reflect a limited amount of planned areas for development.

Macomb

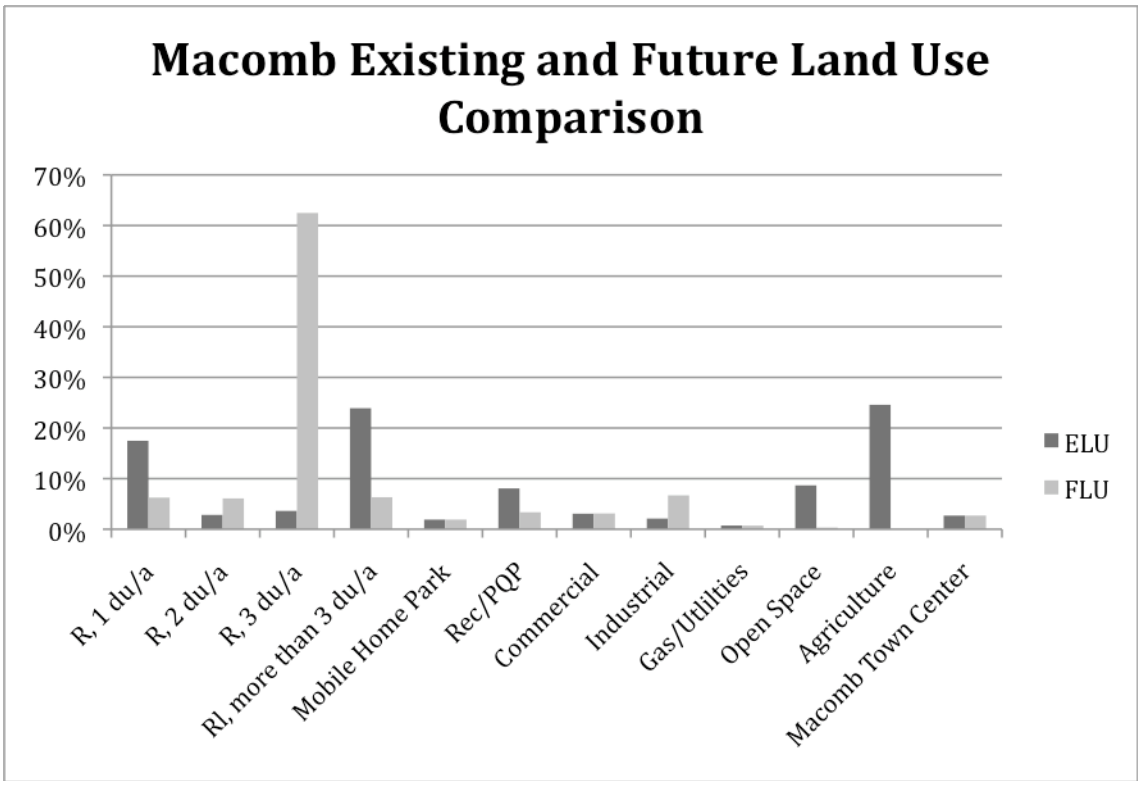


Figure 5.2: Macomb Township existing and future land use comparison

In a parcel-by-parcel comparison of existing and future land use in Macomb, 79% of the land area is nonconforming. Agriculture and open space that are scheduled for development account for about half of this discrepancy, or 33% (Type C nonconformity) (B on Map 4.4). Expanded commercial and industrial areas account for another 6%, and discrepancies in coding public and quasi-public uses (as well as some apparent school sites that do not fit with the master plan) make up another 5.5%. The other major area of

nonconformity is residential uses where the existing lots are smaller than what is called for in the plan (C on Map 5.4). The future land use plan calls for most of the township to be developed residentially at 3 or fewer units per acre. According to the GIS lot area calculations, the actual lot sizes, in many cases, are smaller than 1/3 of an acre. These lot sizes are permitted under the R-1 zoning district, which allows lots of 8,400 square feet in areas that are serviced with sewer and water. However, for these districts the ordinance also states "that where both water and sewer are available the lot yield for the parcel to be divided shall not exceed three (3) units per acre" (Macomb Township, 2008 Sec. 10.0704.A.3.e).

Macomb Township planner Jerry Schmeizer has two explanations for this. First, when the township building boom began in the late 1960s, lots were required to be 60 feet wide, which allowed almost four units per acre. In the late 1980s, the lot width requirement was raised to 70 feet. So many of the lots that appear not to conform were probably built or at least platted before the new requirements. Any new lots are subdivided per the new standards (Schmeizer, 2007).

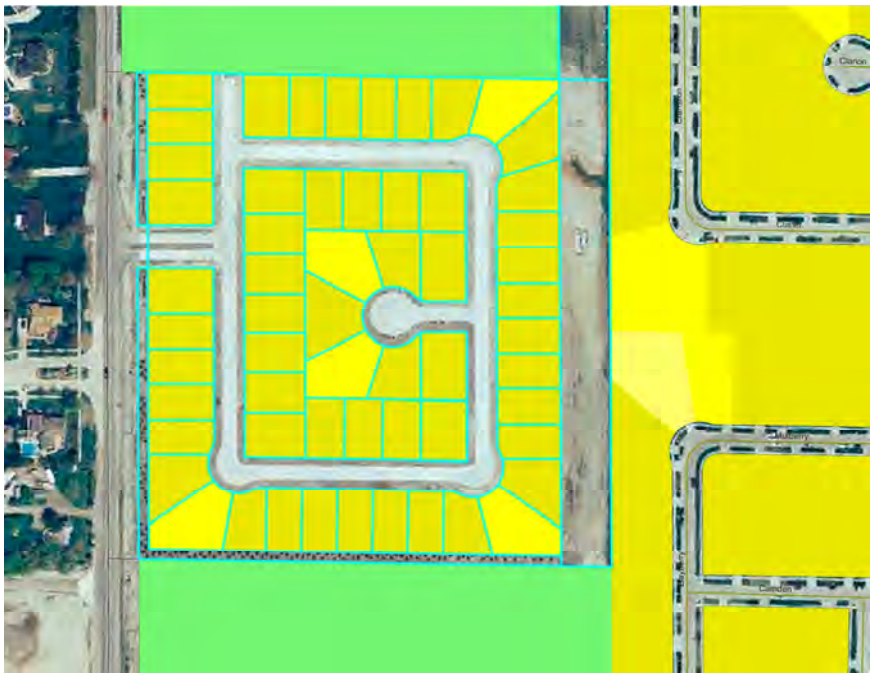


Figure 5.3: Example of subdivision lot areas, Macomb Township. The corner lots, in a lighter color, are between 0.5 and 0.33 acres. The other lots are smaller than .33 acres.

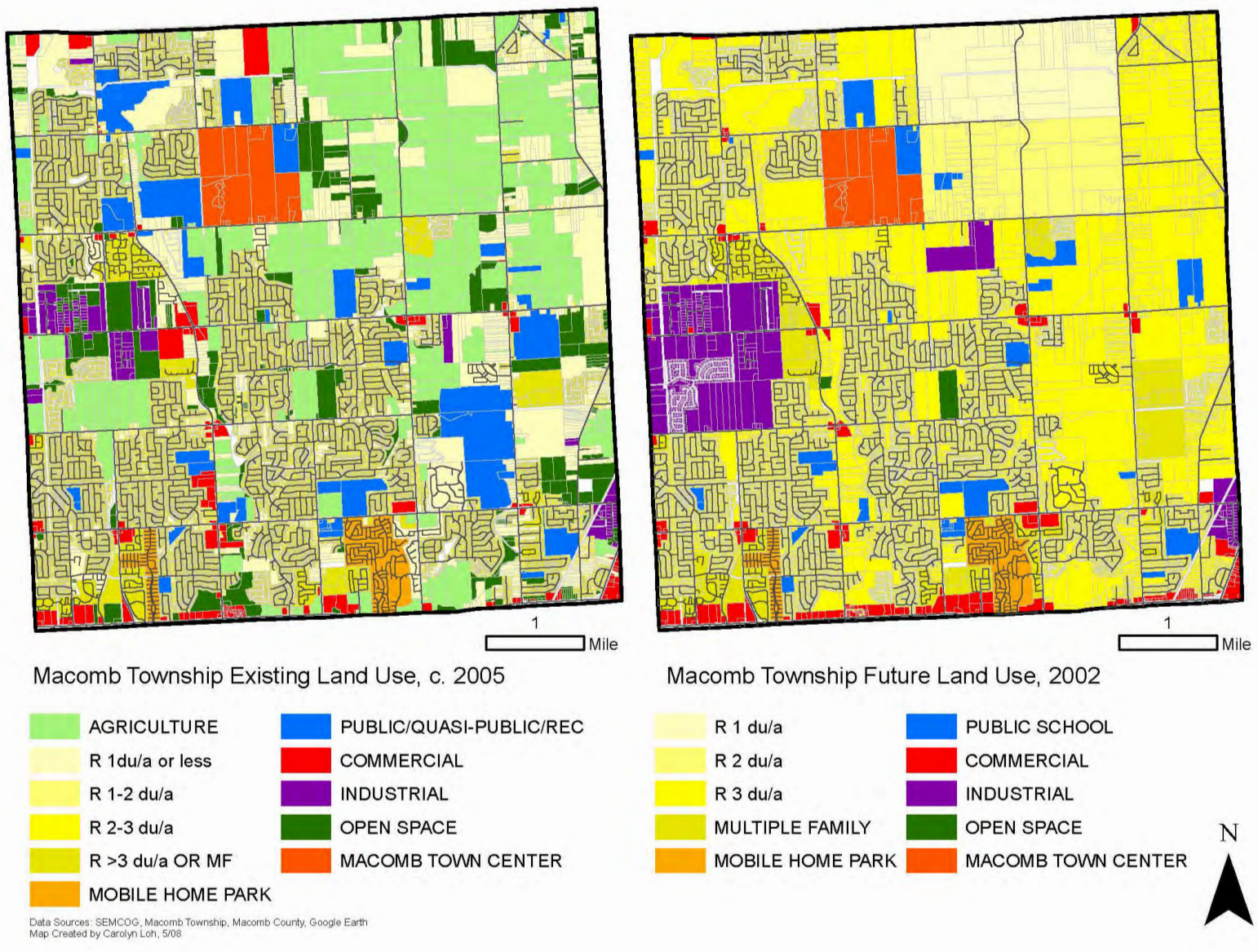
In addition, although many local governments base their density calculations upon the net buildable area of a site (Hannan, 2008), in Macomb Township density is calculated using the entire acreage of the subdivision, including right-of-way.[11] For example, this recently built subdivision (Figure 5.4 above) near the intersection of Hayes Road and 24 Mile Road is being built on what appears to be about 20.62 acres. This figure includes the internal road right-of-way, a natural gas line easement, and strips to the south and west of the subdivision that are planted with pine tree buffers. This figure, divided by the 58 units in the sub, works out to a density of .35 units per acre, or just over the minimum of .33.

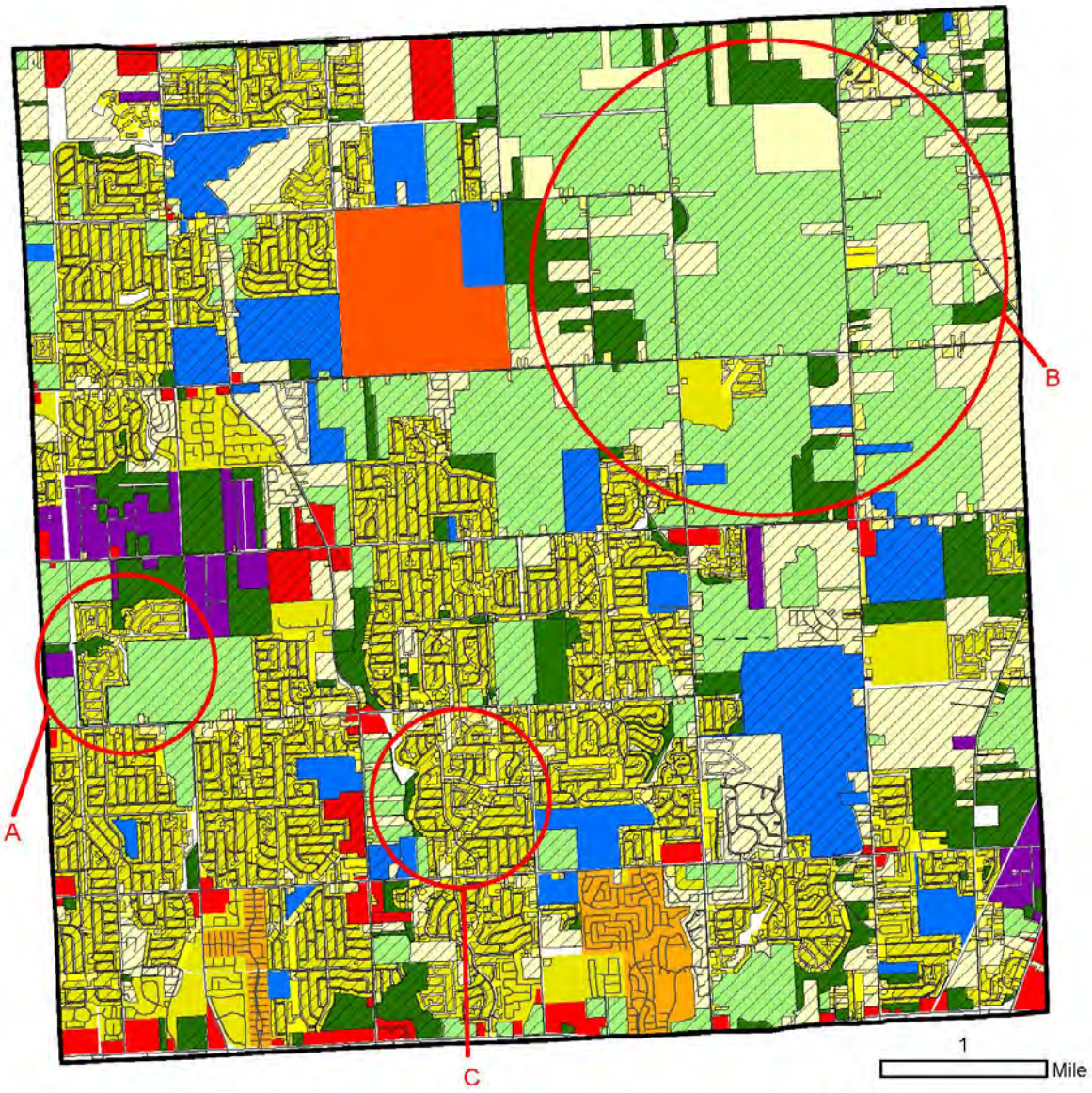
[11] From Ordinance Definitions: "Gross Acre: The land area used to calculate density shall be based on gross acres and shall include all existing and proposed state and county road and street rights of way and all easements both public and private"(Macomb Township, 2008, Appendix J).

Since the GIS analysis calculates the size of each individual lot, it is very difficult to tell which areas of the township have smaller lots because they are older and do not conform to the current zoning regulations, and which do conform to the current zoning regulations because they are part of a subdivision whose overall density was calculated using unbuildable areas.

Finally, Macomb contains the most striking example of Type 1 nonconformity in its planned industrial area, where a residential subdivision has been built on the site of a former airport (A on Map 5.4). The future land use map shows the area as planned for industrial uses, as did earlier iterations of the master plan. The decision to allow a residential subdivision to be developed on the land was forced upon the township by the court; the situation is described in detail in Chapter 6.

Map 5.3


1
Mile
Macomb Township Existing Land Use, c. 2005
AGRICULTURE
R 1du/a or less
R 1-2 du/a
R 2-3 du/a
R >3 du/a OR MF
MOBILE HOME PARK
PUBLIC/QUASI-PUBLIC/REC
COMMERCIAL
INDUSTRIAL
OPEN SPACE
MACOMB TOWN CENTER
Data Sources: SEMCOG, Macomb Township, Macomb County, Google Earth
Map Created by Carolyn Loh, 5/08
1
Mile
Macomb Township Future Land Use, 2002
R 1 du/a
R 2 du/a
R 3 du/a
MULTIPLE FAMILY
MOBILE HOME PARK
PUBLIC SCHOOL
COMMERCIAL
INDUSTRIAL
OPEN SPACE
MACOMB TOWN CENTER
N



Macomb Township Existing Land Use and Areas of Nonconformity

- AREAS OF NONCONFORMITY
- AGRICULTURE
- R 1du/a or less
- R 1-2 du/a
- R 2-3 du/a
- R >3 du/a OR MF
- MOBILE HOME PARK
- PUBLIC/QUASI-PUBLIC/REC
- COMMERCIAL
- INDUSTRIAL
- OPEN SPACE
- MACOMB TOWN CENTER

N

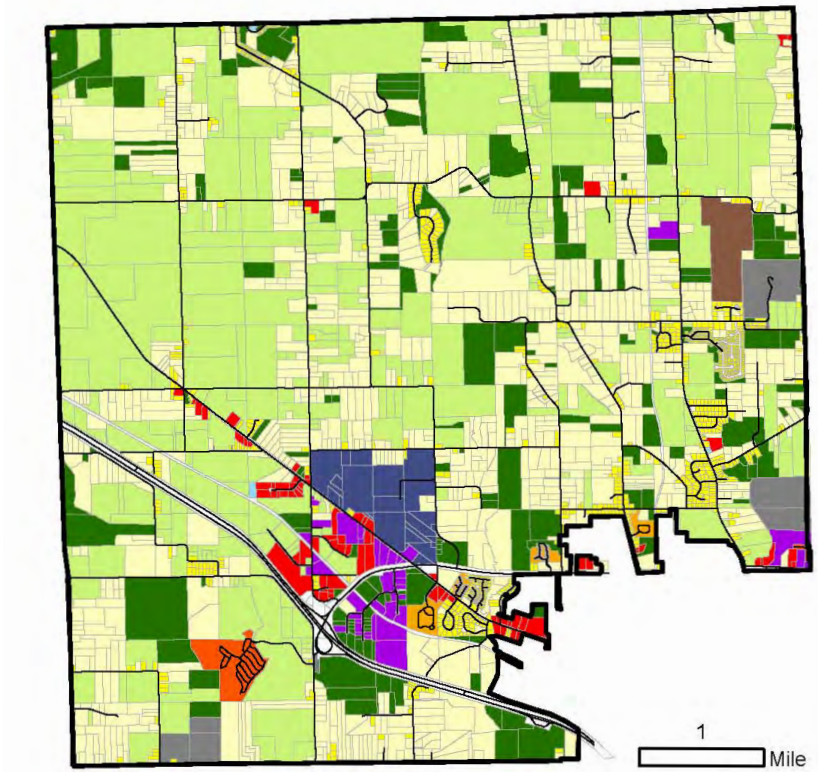
Data Sources: SEMCOG, Macomb Township, Macomb County, Google Earth
Map Created by Carolyn Loh, 5/08

Map 5.4

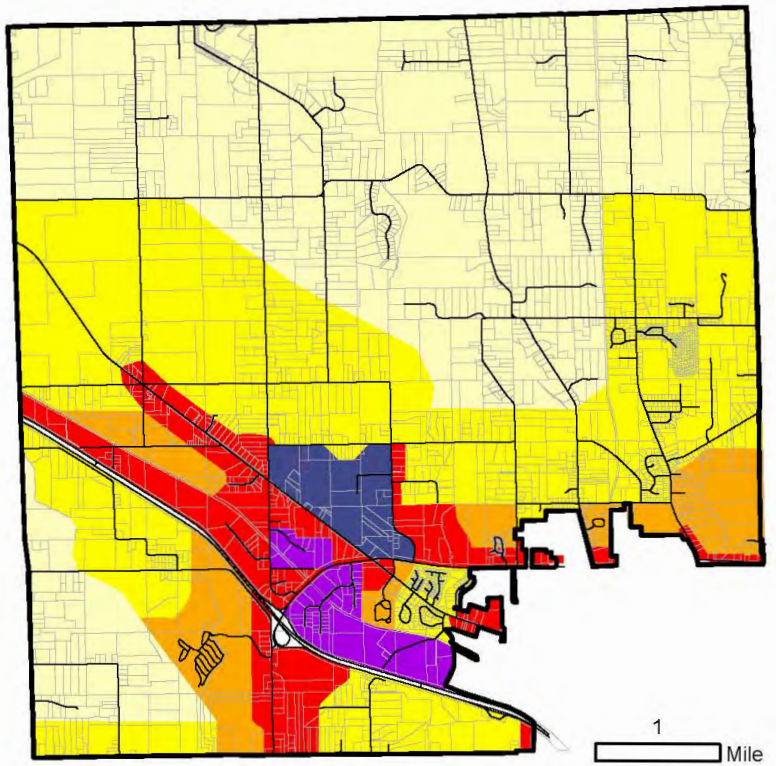
Howell

Howell Township is planning for wholesale change in land use. Roughly 75% of the township's land is planned for a use different than its current use. Currently, almost 40% of the township's land is active agriculture. As shown on Map 5.5, the Future Land Use Map shows no agriculture. If the plan is followed, most of the existing agricultural areas will be replaced with medium density residential uses, at three dwelling units per acre, which will make up 36% of the township's land. The lowest density residential category in the township, at 0.5 du/a (two-acre lots), which currently makes up 36% of the township's existing land, will increase to 46%. Multiple family residential and commercial will also gain substantially if the plan is followed. The future land use plan provides for no dedicated open space. Woodlands and scrublands currently make up at least 12% of the township's land. This figure underestimates the real total, since the existing land use layer is parcel-based. This means that under most circumstances, if a parcel is mostly woodland but has a house or commercial building, that parcel is coded as residential or commercial, and the open space is not counted.

Map 5.5



Howell Township Existing Land Use, c.2005



Howell Township Future Land Use, 2008

- AGRICULTURE
- RESIDENTIAL 0.5 du/a
- RESIDENTIAL 3.0 du/a
- RESIDENTIAL, >3.0 du/a
- MULTIPLE FAMILY RESIDENTIAL
- MOBILE HOME PARK
- COMMERCIAL
- INDUSTRIAL
- AIRPORT
- OPEN SPACE
- RECREATION
- EXTRACTIVE

- RESIDENTIAL 0.5 du/a
- RESIDENTIAL 3.0 du/a
- RESIDENTIAL 8.0 du/a
- COMMERCIAL
- INDUSTRIAL
- AIRPORT

N

Data Soucres: SEMCOG, Livingston County, Howell Township, Google Earth
Map created by Carolyn Loh 5/08

From its future land use map, Howell Township's vision for the future may be described as primarily suburban residential in nature. Approximately the northern third of the township is reserved for semi-rural residential uses, although the 0.5 du/a density does not lend itself to the preservation of rural elements such as agriculture, woodlands, and wetlands. Commercial areas extend up Grand River Road and along I-96 and commercial and multiple family areas stretch along Highland Road (M-59).

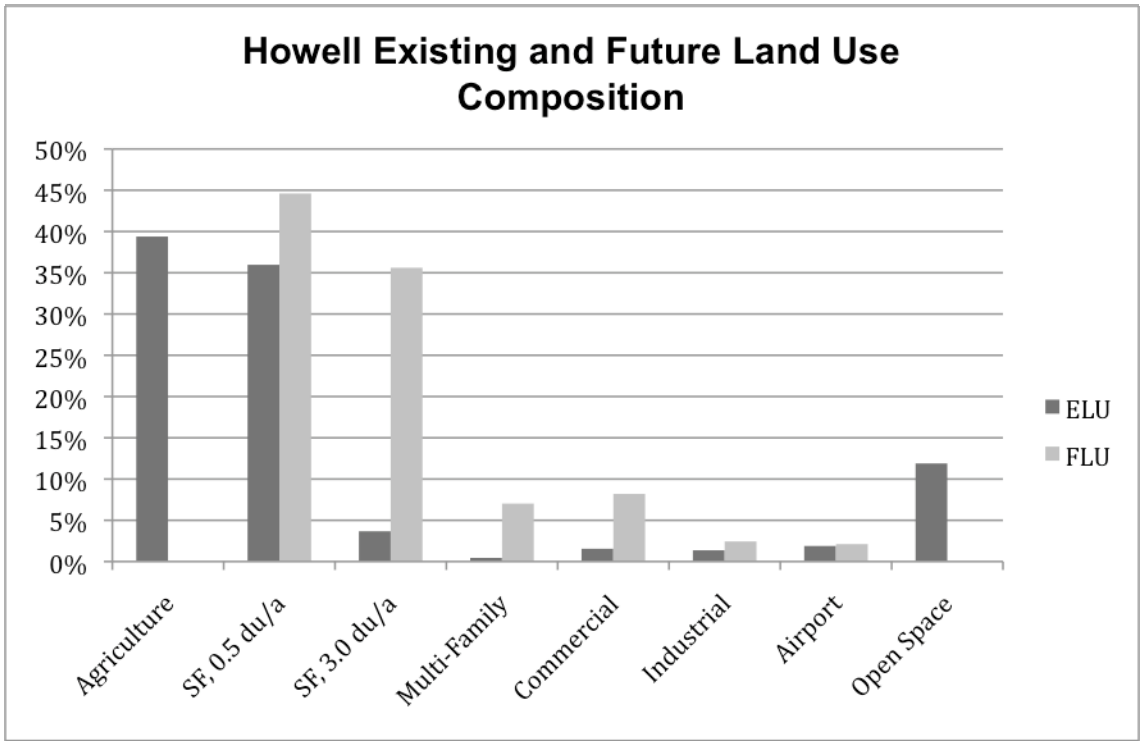


Figure 5.4: Howell Township existing and future land use comparison

As mentioned earlier, only about 25% of Howell's existing land use is the same as its planned future land use. The Future Land Use Map provides for the expansion of all urbanized land uses, at the expense of farms and open space. Some of the area currently developed as large lot residential is planned for denser residential uses. Extractive uses

(probably sand and gravel extraction operations) are planned for residential. This is not uncommon, for it allows the developer to create "lakes" out of the quarried areas. An existing golf course is planned for medium density residential. From the Township's map of recent and proposed developments, it looks as though this area is already being redeveloped into residential, in conformance with the plan. A small number of commercial and industrial uses conflict with the planned residential areas in which they are located. It is likely that these uses were established many years ago, when many rural areas did not zone or only casually enforced their zoning. Finally, there are three subdivisions in the Township whose lots are smaller than the three du/a planned density would accommodate. These subdivisions were developed as PUDs, which allow some flexibility around lot dimensions in exchange for open space or other amenities. The differences between existing and future land use in Howell appear to be primarily Type B and C nonconformities.

West Bloomfield

West Bloomfield's future land use map, shown on Map 5.6, shows 55% nonconformity in comparison with existing land use. However, much of this discrepancy can be explained by differences in coding between the existing and future land use layers. The Oakland County GIS department created the existing land use layer, and although it is parcel based, it records woodlands and wetlands that do not appear on the more broadly focused future land use map. It also records as recreation/conservation land that the township categorizes as civic. 17% of the 55% total falls into this category of differently recorded open space and recreation. Since most of the existing open space areas are either small patches located in already developed subdivisions, or preserved areas used as parks

or attached to schools, this discrepancy does not seem cause for concern. In other words, unlike in the more rural townships, there are not large tracts of open space that are scheduled for development.

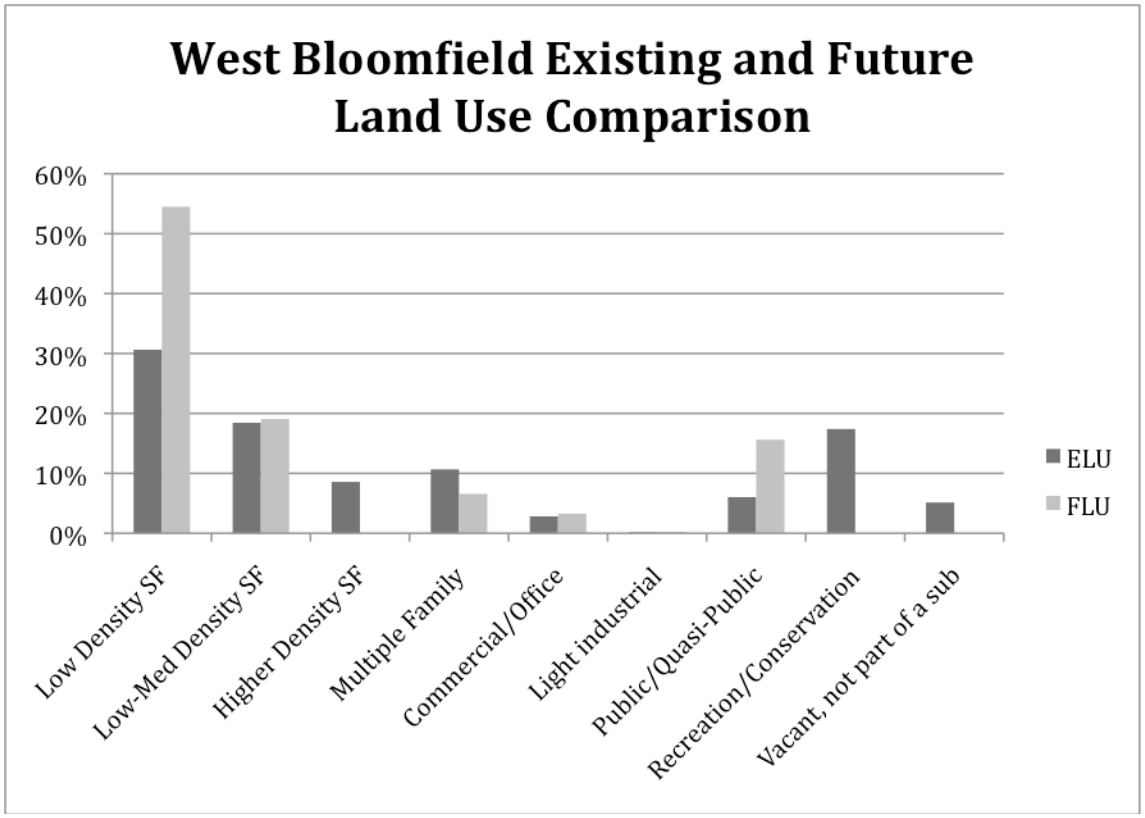


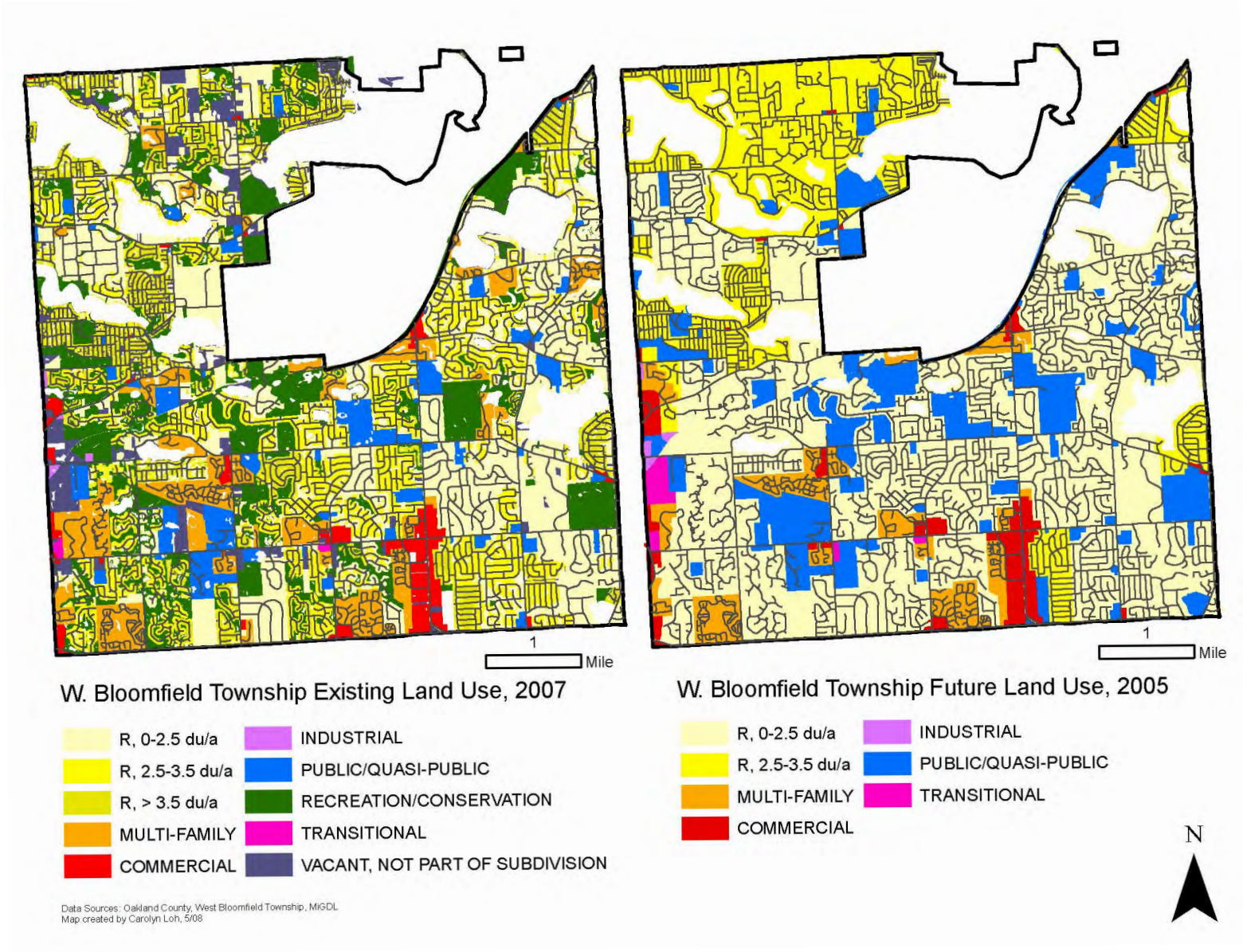
Figure 5.5: West Bloomfield Township existing and future land use comparison

The remaining discrepancy mainly includes differences in existing and planned residential densities. The master plan divides single family uses into two densities, 0-2.5 du/a and 2.5-3.5 du/a. Existing residential densities go as high as 4.5 du/a, and the location of the higher and lower density residential areas does not necessarily match the planned higher and lower density areas. West Bloomfield Township planner Doug Plachcinski says that existing zoning categories were created to match what had already been developed or platted. He thinks that the failure to reconcile the plan with existing

development and zoning was simply an oversight when the plan was developed (Plachcinski, 2007).

Thus, the changes that the plan appears to call for, especially a shift to lower density residential uses, are unlikely ever to occur, barring an almost unheard-of large scale redevelopment of existing residential subdivisions. This represents a Type 2 disconnect, within the plan. The plan does not reflect due diligence about existing conditions in the township.

Map 5.6


1
Mile
W. Bloomfield Township Existing Land Use, 2007
R, 0-2.5 du/a
R, 2.5-3.5 du/a
R, > 3.5 du/a
MULTI-FAMILY
COMMERCIAL
INDUSTRIAL
PUBLIC/QUASI-PUBLIC
RECREATION/CONSERVATION
TRANSITIONAL
VACANT, NOT PART OF SUBDIVISION
Data Sources: Oakland County, West Bloomfield Township, MiGDL
Map created by Carolyn Loh, 5/08
1
Mile
W. Bloomfield Township Future Land Use, 2005
R, 0-2.5 du/a
R, 2.5-3.5 du/a
MULTI-FAMILY
COMMERCIAL
INDUSTRIAL
PUBLIC/QUASI-PUBLIC
TRANSITIONAL
N

Conclusion

There is widespread nonconformance between future land use maps and existing land use. Communities with higher growth pressure exhibit greater nonconformance than do communities with lower growth pressure. The same relationship does not exist between planning capacity and map conformance, however. To a large degree, this nonconformance is the result of the presence of currently undeveloped land that is planned for other future uses. These areas of nonconformance cannot be characterized as failures in planning, as such. In certain cases, however, the nonconformance is the result of mistakes or inconsistent decisions made by the township government. In these cases, we can say that there has been a disconnect in the planning process. The following chapter traces the path of the planning process in each community and identifies and analyzes these disconnects.

Chapter 6

The Four Disconnects

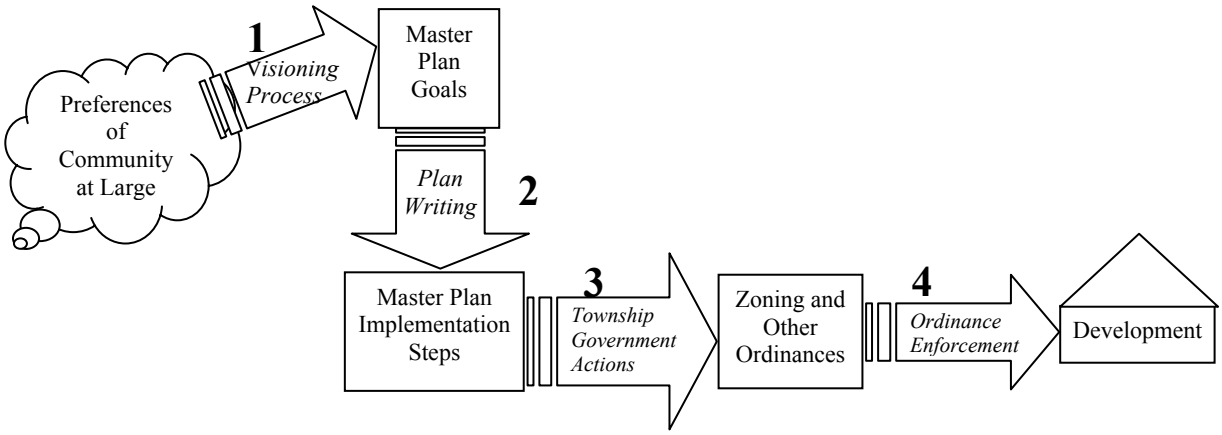
Having explored the planning context of each of the four case study townships in Chapter 4, and identifying instances of nonconformance between plans and outcomes in Chapter 5, we now must explain how and why these areas of nonconformance occur. Theoretically, each of the four case study townships carries out the planning process by creating a master plan, amending the zoning ordinance in ways that reflect the goals and objectives of the plan, reviewing site plans, and enforcing codes. A combination of township staff, consultants, and elected and appointed officials carries out this process. From time to time outcomes fail to agree with plans. Sometimes there are legitimate reasons for this, but sometimes a lack of conformance between the plan and what is on the ground or in the ordinance indicates that the planning process has broken down. An in-depth qualitative analysis can help make the distinction.

Illustrated in Figure 6.1, there are four places where the planning process may break down. The preferences of the community at large may not be reflected in the master plan goals, either because of a flawed or absent visioning process (including a process dominated by a particular interest group) or because the results of the visioning process did not drive the goal formulation (arrow 1). A disconnect may also occur within the master plan itself (arrow 2). Goals may be poorly worded or vague, or the plan may not list any actionable implementation steps. A third disconnect can happen when the

township government acts on the plan, or fails to act (arrow 3). The township government directly implements the plan in two ways, by approving or denying rezoning requests, and by amending the zoning ordinance text to reflect the master plan goals.[12] A disconnect may occur if the township board makes decisions on rezoning requests that conflict with the future land use map, or fails to update ordinances that conflict with the plan's stated goals and objectives. Finally, the government or staff may selectively enforce or not enforce ordinances (arrow 4) for reasons such as cronyism, lack of awareness of problems, or lack of funds for legal fees. Ordinance enforcement includes reviewing site plans for compliance with all applicable ordinances.

[12] Other government bodies also implement the plan by making decisions regarding the funding and placement of utilities, public buildings, and other infrastructure. Here, I focus specifically on implementation through regulation.

The Four Disconnects, in Practice



Plan Making		Plan Implementation	
Disconnect 1	**Disconnect 2**	**Disconnect 3**	**Disconnect 4**
Erie Howell	 Howell Macomb West Bloomfield	Erie Macomb	No conclusive evidence in this study

Figure 6.1: The four potential disconnects in the planning process, and where they appeared in the four case study townships

1. Visioning Process

Erie Township did not conduct a public participation process for its most recent master plan update (Eidelson, 2008, p. 14; Richardson, 2007, p. 9). Aside from regular open meetings, "in terms of substantive public input during the process, it was nil" (Eidelson, 2008, p. 14). Howell Township, after a dismally low turnout for its recreation plan input day, decided to forego any formal visioning process for its master plan (Eaton, 2007, p. 9; Hotaling, 2007, p. 1). Macomb Township held a charrette for its Macomb Town Center Plan, and conducted a survey for its recreation plan, but did not have a separate public participation process for its master plan update (Schmeizer, 2007, p. 9). West Bloomfield Township also held a charrette, in this case for its master plan. Initially, turnout for public planning events was good, although the planning process dragged on so

long that by the end "everybody was sort of worn on public participation" (Plachcinski, 2007, p. 5). In the cases of Erie and Howell Townships, despite being excluded (or at least not formally included) in the planning process, residents made their wishes known through other avenues, discussed in more detail below, exposing the Type 1 disconnect in each process.

Howell Township has created several special assessment districts (SADs) to pay for new water and sewer service. These water and sewer districts influence the location of planned higher density development on the future land use map. When Howell Township created Sewer and Water District No. 8, it had to hold the public meeting in the high school gymnasium to accommodate the "lynch mob" that turned out (Thomas 2007, 9). According to planning commission and township board member Todd Thomas, residents were angered by the connection fees they would have to pay, but also by the growth the new sewer district would accommodate. Residents who moved to Howell for the "rural atmosphere" were dismayed to find out about the plans for development at three units per acre in the new utility district (Thomas 2007, 10).

Community opposition to the sewer and water districts did not stop them from being constructed. Township officials did not believe that they were able to either deny developers' requests for utilities or cajole developers into paying for the new districts. As Clerk and Zoning Administrator Carolyn Eaton put it, "it's my understanding that if developers like that who have all these huge parcels come in and if we do not provide water and sewer and go forward with the district, we could be sued for not doing it" (Eaton 2007, p.6).

The paradox of newer residents of rural areas opposing the type of growth that allowed them to move there is a common one. In Howell Township, those voices were not incorporated into the master plan, presenting the second disconnect, between public opinion and master plan goals (Type 1). It is unclear whether a real effort at a public participation process would have mattered in terms of the built outcome, since previous participation efforts on the part of the township met with general apathy on the part of the public. Regardless of whether or not conservation-minded township residents participated, the township sees its job as responding to developers' requests. As Carolyn Eaton said, "Because you go by the acreage, the developers do have more say than just somebody in a one-acre with a house" (Eaton 2007, 6).

Although Erie Township's Planning Commission Chair Paul Richardson says that township residents want to keep their community rural (2007, p.4-5), at least some landowners were unhappy with the perceived development restrictions that conservation zoning put on their land (described in detail under number 3 below). This disconnect between public opinion and plan goals may be partly attributed to genuine ambivalence in the community around the issue of farmland preservation versus development potential. It is certainly common for farmers to oppose farmland and open space preservation efforts (Puppim de Oliveira, 2005). In Erie's case, however, it cannot be said that the township did due diligence to meaningfully involve the public in the master planning process (Eidelson, 2008, p.15-16). If township officials had made a greater effort to both gauge public opinion and gain public buy-in, the ensuing ordinance might have been less ambitious, but more enduring. On the other hand, conservation-minded residents might have come out in droves to demand an ordinance that helped preserve

Erie's rural character, and township board members might not have felt the need to capitulate to pressure from the farmers. Without a public participation process, there is no way to know for sure.

2. Plan Writing

The second disconnect occurs within the master plan itself, either because the goals do not make sense or conflict with each other, or because they are not followed by any actionable implementation steps. In West Bloomfield Township, the master plan goals call for residential densities that contradict many existing developments that fully comply with the zoning ordinance. Macomb Township's goals are difficult to locate, and the plan suggests that they may be ignored in future decision-making (discussed in detail in Chapter 4) (Macomb Township, 2002, p. 71). They are not followed by any implementation steps.

Inconsistency within the master plan is the first of two disconnects in Howell Township's planning process. The plan lists the goals "preserving and protecting rural character" and "encourage the use of open space in all developments for a useful purpose and preserve or conserve natural open space, including wetlands, woodlands, and flood plains (Howell MP, p. 16). Related objectives include "preserving existing natural resources" and "encouraging development which preserves open space and prevents urban sprawl" (Howell MP, p.17). However, the plan lists no specific implementation steps to achieve these goals and objectives and further states, "Howell Township, being dominantly a rural open land use type of area, does not currently feel the need for open space planning for open land preservation, conservation and use" (Howell MP p. 188). The language in Howell's environmental goals is fairly standard for rural master plans,

but there is no evidence that the township takes these goals seriously and these goals and objectives are not followed by any implementation steps.

3. Local Government Actions

The third disconnect occurs when the planning commission, township board, or other regulatory body (such as a Zoning Board of Appeals) takes actions that contradict the plan goals and objectives, or simply fails to implement its recommendations. Plans are implemented in three immediate ways (here I ignore, for the moment, ordinance enforcement, which is a step removed). First, the planner or planning commission may look at the plan's text to see if a proposed development or land use designation change fits the intent of the plan's goals and objectives. Second, the planning commission or township board may look at the future land use map to see if a proposed rezoning falls into the appropriate future land use category. Third, the planning commission may recommend that the township board amend the zoning ordinance to include provisions recommended in the plan, such as an open space subdivision option, a mixed use district, or a requirement for sidewalks.[13]

In Erie Township, the planning commission initially followed through on one of the master plan's most important recommendations, creating an agricultural conservation district. Under pressure from farmers, the township board altered the requirements of the district to be much less effective at preserving farming operations.

In Macomb Township, a history of actions inconsistent with the master plan caused the township to have to accept a residential development it did not want and had

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[13] The township board may also initiate zoning ordinance amendments or rezonings, but in my experience more often it approves legislation that is recommended by the planning commission.

not planned for. An airport in the planned industrial area was sold to a developer, who requested a rezoning from industrial to commercial and residential. The township refused the rezoning request, since it was incompatible with the master plan and would remove a large amount of the township's planned industrial area. The developer sued. At first glance, this incident appears to be a case of the township acting properly to uphold its master plan: the planning process at work.

The court, however, ruled against the township for several reasons, two of which have direct bearing on the planning process. First the court found that the township "does not and has not master planned land for commercial and agricultural uses. Essentially the Township has used and is using an ad hoc, case specific, approach with respect to the planning, zoning, and development of agricultural and commercial properties."[14] This is exactly the type of behavior that the master plan is supposed to pre-empt, by laying out guidelines (or even a blueprint) for future rezoning decisions. This criticism of the township's past rezoning decisions is repeated later in the document:

> Moreover, the trial court found that defendant had demonstrated a significant willingness to modify or deviate from the master plan on an inconsistent basis, as most significantly demonstrated by the already existing incompatible land classifications adjacent to the subject property (Grand/Sakwa v. Macomb 2005, p.8).

In other words, the township had already approved rezoning requests for nearby property that were equally incompatible with the master plan. Therefore, the township did not have a leg to stand on when refusing Grand/Sakwa's request. Further, much of the land planned for industrial uses was not in fact zoned industrial, but agricultural, which

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[14] *Grand/Sakwa Macomb Airport L.L.C. v. Township of Macomb*. Unpublished decision, State of Michigan Court of Appeals. Docket No. 256013. June 7, 2005.

permits moderate density residential development (one dwelling unit per acre). That land could be developed as residential without any rezoning, although the township's planner (the individual is not named) testified that if the landowner decided to exercise that option, "the Township would initiate proceedings to rezone the property to industrial in order to prevent the development" (Grand/Sakwa 2005, 4). This, again, is not how the planning process is supposed to function. If the government has a strong interest in a certain area developing in a certain way, it may rezone the property to accommodate the desired future uses. Dashing in to prevent a landowner from developing his or her property according to the current zoning creates an atmosphere where the government creates uncertainty rather than alleviating it. Property markets function best when all the players know what to expect.

In the recent past, then, the township has made decisions, including amendments to the zoning ordinance, that both create and fail to reasonably pre-empt incompatibility with the future land use map. This inconsistency has weakened the township's position when defending itself against challenges to its land use decisions.

4. Ordinance Enforcement

The fourth potential disconnect occurs when the township board, planning commission, zoning administrator, or ordinance enforcement officer fails to enforce the zoning ordinance. This disconnect may be manifested in several ways. One possibility is failure to carefully review site plans to ensure compliance with setbacks, landscaping, parking, and other requirements enumerated in the zoning ordinance. Another is approving uses in zoning districts where they are prohibited. A third is failing to bring the police power to bear on property owners who violate zoning or nuisance ordinances such

as erecting illegal signs or running illegal businesses in a residential zone. In this study, I primarily looked for evidence of oversights in the site plan approval process; I did not conduct a wider survey of ordinance enforcement practices. There was no direct evidence for problems of this type in this particular study, although they do occur.

Conclusion

Assessing conformance can tell us how well a community followed its master plan. Tracing the planning process from start to finish and identifying the disconnects can tell us how and why problems occurred, or if the disconnects in fact represented problems. In Erie Township, for example, the plan recommended a very forward-thinking agricultural preservation district, which was implemented in the zoning ordinance. However, the farmers (and the rest of the general public) were left out of the process. We could see their later exercise of political clout as unfortunate, since it weakened significantly the agricultural preservation legislation that had been put in place. We could also see their involvement as righting a wrong, and making the township's ordinances more in line with what the people wanted. Still, if the first disconnect had not occurred—in other words, if Erie's planning commission had had a meaningful public participation process at the beginning of the plan revisions—citizens might not have had to elbow their way into the process later.

In the end, disconnects do mainly represent problems in the planning process, rather than neutral or positive additions. Some of the problems could be easily avoided in the future, such as making sure each master planning process begins with an inclusive visioning session. Others are more difficult to resolve, such as improving plan writing. In

the final chapter, I discuss some of the implications of the four disconnects and suggest ways to overcome them.

Chapter 7

Conclusion

The analysis in this dissertation demonstrates that there is a marked lack of conformance between land use outcomes and master plans goals and maps. I demonstrate this lack of conformance both through comparisons between the future land use and existing land use maps, and analysis of discrepancies between plan and ordinance language. What gets built, ostensibly under the guidance of the plan, looks very different that what is planned for on the future land use map. Local governments make decisions that conflict with master plan goals. By understanding how the process breaks down, we can make recommendations for improvements in future planning efforts.

As we have seen in the literature review, there is an ongoing discussion among planning researchers as to the meaning of implementation. Some assert that implementation means following each aspect of the plan to the letter, which means treating the plan like a blueprint. Others think the public act of carrying out the planning process is the most important part, and the plan should be treated as a set of general guidelines. The lack of conformance discovered in this study should be of concern to those in both camps. If one believes that plans are blueprints, any deviation is a problem, and in this study there are many. Most people recognize that there needs to be some room for flexibility; however, there are practical implications of nonconformance. By acting inconsistently, or by approving a master plan that is inconsistent with reality, the

community weakens its position in the power relationship with developers, at least in the eyes of the legal system.

This study also found practices that would worry those who attach more importance to process, since a majority of the townships did not conduct the community visioning sessions that are a hallmark of the ideal planning process. In Erie and Howell Townships, groups of residents inserted themselves into the process *post hoc*, to protest decisions the planning commission and township board had already made. In Erie Township, the farmers made their opinions known by putting political pressure on elected officials to revoke an ordinance, not because the planning commission involved them in the master planning process. In Howell, residents turned out in numbers sufficient to fill a school gymnasium to protest a new utility district that would accommodate higher density. In Macomb, township officials paint a picture of a generally disinterested populace; at least, they did not cite any examples of spontaneous public involvement. If a planning commission does conduct a legitimate public participation process, then makes ad hoc decisions, the planning commission circumvents goals and objectives that are supposed to be agreed upon by the community at large.

The Roles of Capacity and Growth Pressure

This first, most common disconnect, between public opinion and plan goals, can often be avoided by conducting a thorough community visioning process. Such a process requires expertise and the money to pay for it, as well as an engaged group of stakeholders who are willing to commit time to the process. The second disconnect, within the master plan, is a plan quality issue. Expending more resources to hire more staff or an experienced consultant to write the plan, or to better educate the planning

commission, could ameliorate this problem. The third disconnect may be caused, in part, by the lack of resources to pay for professional advice, as when Erie Township's planning commission broke off ties with its consultant for a time in order to save money. The fourth disconnect between ordinances and enforcement can be affected by fiscal capacity. As Carolyn Eaton of Howell Township said, the township board has to choose which violators to pursue legal action against, since the township does not have the money to fight every battle (Eaton, 2007, p. 19). Ordinance enforcement can also suffer from a lack of professional capacity. Typically a planner reviews site plans for compliance with ordinances and ordinance enforcement officers and building officials ensure compliance as and after the project is built. If these personnel are missing or ineffective, type four disconnects may occur.

Growth pressure's effect on the four disconnects is less straightforward. In Erie Township, development pressure and legal challenges in neighboring townships (but not in Erie itself) prompted a hurried review of the master plan that eliminated the public participation process (Eidelson, 2008, p. 16), leading to a Type 1 disconnect. Macomb Township's attempt to preserve a planned industrial area in the face of overwhelming demand for residential development was unsuccessful. Of course, in addition to development pressure this was caused also by the court's lack of sympathy for a township with a history of ignoring its master plan. Howell Township's belief that if developers come, it must provide utilities has contributed to a disconnect between the desires of at least a subset of the public and the township's development outcomes.

Perhaps, then, development pressure, signaling the impending end of the township's previous rural/agricultural mode, causes township governments to not know

quite what to do. Should they try to accommodate all development, like Howell? Should they try to keep the future land use map essentially the same as it has always been, like Macomb? Should they, like Erie, try to quickly add growth management provisions into the master plan so that the planning commission cannot be accused of amending the plan specifically to thwart a particular development? Without a strongly engaged community with a clear vision of the desired future (high community capacity) and a planner who will bring appropriate tools to bear, it is difficult for township governments to handle rapid land use change without the planning process breaking down in some way. Many townships lack both of these important elements.

Connecting the Disconnects

Having identified the disconnects, and how they are affected by capacity and growth pressure, we can start to think about ways to address them, and improve the continuity of the planning process. On their own, local governments cannot directly affect growth pressure, since it is caused by regional economic forces and cultural housing preferences, although their actions may help increase of decrease that pressure locally. Governments at the periphery can, however, anticipate growth pressure long before it reaches their boundaries, and prepare for it using plans and ordinances. Shaping development, under pressure, according to the community's vision takes foresight, strong and innovative ordinances, and consistency in enforcing plans and ordinances.

This kind of good planning requires a certain amount of capacity. Thus, increasing planning capacity in communities at the periphery could have a positive effect on the effectiveness of the planning process. Of course, increasing planning capacity does not affect which goals the community wishes to pursue. Increasing capacity might not,

for example, necessarily lead a community to preserve more open space or farmland; rather, it might allow them to accommodate growth more quickly. There are three avenues through which to increase a local government's capacity: improve the quality of the people conducting the planning process, improve the quality of the plans and ordinances, and increase community understanding of and engagement with the planning process.

Many townships have limited resources and cannot afford to hire their own planning staff. They use planning consultants to increase their capacity when they need it, such as when a large development is proposed, or when they want to update a plan or ordinance. Planning consulting firms usually do business with a number of similar communities with similar needs. There are parts of their master plans which are typically almost identical. Planning consultants are normally not paid nearly enough to rethink the process from the ground up, so they borrow from other recent plans. The community gains the knowledge the planners have accumulated from all of their clients, and benefits from innovation and success in other communities. The potential downside of this uniformity, however, is that each township gets a one-size-fits-all solution to its particular problems. One township's issues may be subtly different from those of a neighboring community.

One solution for a small local government might be to have one planner on staff to handle everyday development tasks and consultants to handle large projects. If there was insufficient development work to fill the time of a full staff member, or insufficient funds to pay him or her, two or more townships could split the planner's hours and salary. This way, everyday planning would be carried out by a person educated as a planner, not

simply a zoning administrator. In theory, a planner would bring a broader perspective and a higher level of expertise to the job. The planner could work with consultants to make sure their efforts were tailored to the community. Of course, even with better and more continuous advice, officials are not obligated to follow planners' recommendations, and could still make decisions that conflict with master plan goals and objectives. The county or local Council of Governments could also provide leadership and technical assistance if townships were willing to accept their help.

There is a reasonable and logical role for the state to play in increasing plan quality, since the state government has an interest on efficiency and economic development grounds in a consistent planning system throughout all its communities. The state could make available certain funds to pay for planning projects. This should not be terribly difficult as planning is quite cheap compared to, say, road-building. Any local government that accepted the funds would be required to have its plan approved by a state-level board, similar to the one in Oregon (Knaap, 1990), and would be required to update its plan every five years, as is already required by law. This technically voluntary state oversight would encourage a baseline standard for plan composition and quality. For example, every plan should have goals and objectives relating to housing, economic development, and environment, a background section with demographic information, and a future land use map.

The state could also increase funds and incentives for planning commission education, which already takes place through the award-winning Michigan State University Citizen Planner Program. Creating awareness among planning officials of the potential for disconnects in the planning process could help them avoid these problems.

It is relatively simple to create the conditions under which positive community engagement is possible during the master planning process. Officials and planners need to hold a visioning session (ideally, more than one at different times of day, to accommodate different work schedules). Besides publicizing these events in the newspaper or using signs, officials should identify different groups they want to make sure are involved (Rotarians, migrant workers, the Chamber of Commerce, the school board, skate park supporters, etc.) and specifically invite representatives from those groups. This way, the same few activists who turn out for every planning commission meeting would not be the only ones with a voice in the master planning process. Again, if holding such a meeting were a financial burden for the township, two neighboring townships could hold a joint meeting and share the expenses. Cooperating with other local governments as a strategy for increasing capacity makes a great deal of sense.

Even if the machinery for public participation is in place, citizens may decline to participate (Eaton, 2007, p. 11), or the electorate may be bitterly divided over a particular issue that cannot be easily resolved. Still, aggressively pursuing public involvement generally leads to greater community cohesiveness around planning issues and greater support for the resulting plan.

Managing Growth at the Urban Fringe

For those who are concerned about the rapid conversion of farmland and open space to urbanized land at the metropolitan periphery, increasing capacity only solves part of the problem. It may give rural governments the capability to manage growth in a meaningful way (and even that claim is without supporting evidence, at the moment), but it cannot give them the will to do so. Michigan has one of the most fragmented systems

of local government in the country. Each township is largely on its own financially, and every township supervisor is looking for ways to keep residential taxes low.

My initial interest in conducting this study came out of my experience as a planner, in which township officials and residents appeared to feel powerless in the face of advancing development pressure. I now realize that there are actions a community can take to dramatically change the nature of the development that is built there, and new tools, such as PDR and TDR, are becoming available all the time. The reason that townships do not adopt such innovative growth management measures is that enough officials and residents do not really want them. Residents either want to sell their land to developers or live in houses built on land sold to developers. Officials want to be able to distribute the tax burden away from residential uses. People who move to townships are looking for low taxes, large lots, and cheaper houses than they can get in a closer-in suburb with more services. Except for the large lots, they might still be able to get much of what they want in a township that has adopted stringent growth management ordinances. However, the landscape would not look like the typical laissez faire Michigan township; therefore, to many, it would not look like "the country." As a growth management strategy, expecting individuals or governments to act contrary to their interests, real or perceived, does not offer much hope. In order to slow, stop, or fundamentally change the nature of the outward march of exurbia, incentives will have to be aligned with less growth, not more, and compact, not sprawling growth.

The recent crash in the real estate market, which has been especially painful in Michigan, combined with rising energy prices, may hold the answer in the end. Slowing growth at the urban fringe may be less up to planners and planning officials than to

potential residents who suddenly realize that although they can afford a larger house out in the townships, they cannot afford to heat it or to drive to and from work, and when they need to sell their house, five other identical houses for sale on the same street will make it difficult to do so.

It is appropriate for planners and planning officials to work to increase access to the democratic process through public participation, to safeguard a reasonable proportion of their jurisdiction's natural resources, and to set high standards for quality development that will last for many decades. Despite the presence of regional economic forces beyond their control, by making the most of the resources they have, and striving to ensure continuity between the different steps in the planning process, local government officials and staff can and should have a positive impact on their community's future.

Urban sprawl is one of the most influential issues in planning today, and one of the most complex, since the planning profession has a role in both creating and halting the outward march of low density development. In Michigan, as in many other states, local governments conduct their own planning, so these governments would be on the front lines of growth management, if they chose. For growth management to occur, governments would need to plan for it, and they would need to implement it. By and large, the townships in this study are not planning for any kind of growth management. Erie, the township that made the greatest effort at growth management, was the one whose zoning ordinance deviated most from its master plan goals. This discrepancy indicates that neither planners nor local government officials can impose growth management on an unwilling populace, if their elected officials are responsive.

In terms of implementation, the evidence from this study is clear. Growth pressure increases the likelihood that a township will fail to follow its master plan, either goals or future land use map. Increased capacity has the opposite effect, with higher capacity associated with higher conformance between plan goals, zoning ordinances, and built outcomes. The most common place for the planning process to break down is within the master plan itself, where goals are not followed by actionable implementation steps, leaving little guidance for amending ordinances. Aligning incentives so that it is attractive for citizens to demand that their governments practice "smart growth" may be a herculean task, or possibly even an idea whose time has come. Assuring that the planning process is effective at carrying out the vision of its constituents in an equitable and efficient manner is a task we can begin carrying out right away.

Future Research

In conducting my literature review, I discovered that there is a dearth of studies on planning capacity, both its definition and its effects. My dissertation contributes to filling in this gap, but my future research efforts will be even more focused on this issue. For example, my dissertation measures capacity rather cursorily, as a means to an end (choosing case studies). Much more work needs to be done to define the most accurate metrics of capacity and adapt them for use as a tool with larger data sets. I also plan to better isolate the effects of different types of capacity: fiscal, professional and community[15]. For example, there may be situations where a community with low fiscal

[15] Fiscal capacity refers to the amount of funds that are available for planning. Professional capacity refers to the level of education and expertise of the personnel who carry out the planning process, and community capacity refers to the level of interest and commitment to the planning process of citizens in the community.

and professional capacity succeeds in conducting a high quality planning process. Could that success be attributed to high community capacity?

The role of planning consultants is under-researched as well. In an era of increased interest in planning and increased privatization of many kinds of government services, planners and officials should know the pros and cons of in-house staff versus consultants. There may be positive spillover effects between communities who use the same consulting firms, as consultants apply innovations or lessons learned in one community to their other clients. There may also be a less desirable homogenization effect, as firms use a one-size-fits-all approach to planning in communities with different needs.

Finally, the four disconnects in the planning process should be explored further as they relate to collaborative planning. It is possible to look at the points of potential disconnect as opportunities for citizen involvement; for example, the Erie farmers influencing the township board to rescind its agricultural conservation district ordinance. The question arises, though, of whether the process can be collaborative if the citizen involvement is adversarial rather than invited by the planning commission. The expansion of these three areas of research focus will add dimension to the ongoing discussion about collaborative planning, illuminate the role of consultants in planning, and help municipalities and states decide where to focus their resources to increase capacity for the highest impact.

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