**Appendix D**

**Summary of Fiscal and Real Costs of Sprawl**

**Regional Growth Project**

*Introduction*

The Tri-County Regional Growth Project provided an analysis of the costs of sprawl in the mid-Michigan region, which included a fiscal impact and real cost analysis of sprawl on the region, individual residents, and businesses (Tri-County Planning Commission, 2006 *Regional Growth: Choices for Our Future*, pages 2-18 through 2-23, 2005). While the URSM Policy HIA does not specifically address the economic costs of sprawl, the authors felt it would be helpful to provide a summary of the cost and fiscal impact analysis of sprawl to local units of government addressing public concerns regarding the potential economic costs and trade-offs of growth management and expanding water and sewer infrastructure into undeveloped and rural areas.

Two interrelated technical memoranda further document this element of the “Regional Growth: Choices for Our Future” project. The principal purposes of these tasks include:

* Literature review of fiscal, economic and resource impacts and benefits of low-density development scattered throughout the region and alternatives to it.
* Providing a context for better understanding of fiscal and economic implications of current trends and conditions in the Tri-County region.
* General analysis of fiscal impacts of changing regional land use patterns. This includes identifying fiscal impacts over time associated with moving people around within the region, including differentiating impacts on core communities, suburbs, rural townships and small towns.
* Identification of some specific costs associated with sprawl, as contrasted to a more compact urban form, along with the relationship of these costs to the local tax base and tax rates.
* Relating these fiscal impacts to the adopted “Wise Growth” scenario, themes, principles of the regional vision that evolved from the “Regional Growth: Choices for Our Future” project.
* Using information gathered in the above task, and a survey designed to collect information about people who recently moved to the country, to compare costs (including direct, indirect, public and private) associated with choices to live on large rural lots versus urban lots.

Following is a brief description of key elements and findings of these specific technical tasks.

*Analysis of Fiscal Impacts and Benefits of Alternative Development Patterns*

The fiscal, economic and resource impacts of sprawl versus more compact settlement patterns has been the focus of substantial research and report synthesis in the last few years. Three major types of research in this area may be summarized as:

* Literature reviews of fiscal, economic and resource impacts of various development patterns;
* The most contemporary national synthesis research on costs of sprawl versus more compact settlement patterns; and
* Michigan-specific studies on fiscal impact analysis and impacts of continuing current trends on Michigan land resource based industries.

In review of this research, two studies receive the greatest attention because of their significance. The first is *The Costs of Sprawl – Revisited* and the second is *The Costs of Sprawl – 2000*. Each is the product of an extensive multi-disciplinary team involving many research organizations and led by Dr. Robert Burchell of the Center for Urban Policy Research at Rutgers University. Each study was financed by the Transit Cooperative Research Program supported by the Transportation Research Board of the National Research Council and published by the National Academy Press.

The first report documents the consensus opinion of the multi-disciplinary team on what has been learned from analysis of over 500 fiscal impact and related studies. The second report documents results of running a complex fiscal impact model on a national basis that compares continuing current trends with a more compact settlement pattern. Both reports acknowledge there are both benefits and detriments to sprawl that go beyond the individual and greatly affect a broad range of public interests. Extensive quotes from these reports characterize some of the most important lessons.

There is overall agreement among experts in *The Costs of Sprawl – Revisited* that, based on the literature, higher infrastructure development and land costs exist as a condition of development. There is general agreement on existence of negative transportation impacts from development such as long travel times and less cost-effective transit. There is general agreement that loss of agricultural land and sensitive environmental areas are linked to sprawl. Positive impacts on quality of life, such as lower crime rates and economic well-being, are also agreed upon as linked to sprawl. According to the authors, the literature shows positive social impacts, such as localized land use decisions, municipal diversity and choice, are indeed linked to sprawl. There is general agreement a host of other impacts are associated with development, but less agreement they are associated with sprawl.

The *Costs of Sprawl – 2000* examines the impact of sprawl on resources using five different models: land conversion, water and sewer infrastructure, local road infrastructure, local public service costs and real estate development costs. The personal costs of sprawl on individual travel costs, quality of life and livability of cities are also examined. The study preface states:

*There are high infrastructure and land conversion costs associated with sprawl, yet quality of life is higher and housing costs are lower in locations characterized by sprawl development. This report looks very carefully at the many costs and benefits of sprawl and concludes that there is clearly evidence of each.*

*Costs and benefits are not weighed on a balanced scale, however. There appear to be more costs than benefits, even though the magnitude of these costs to the general public is not nearly what has been chronicled in the popular press. On the other hand, the level of resource consumption resulting from development is increasing in the United States, and this increase is not related to need. There is no reason to support two underutilized systems of infrastructure when one fully subscribed system will do.*

*Growth need not ‘skip’ to the farthest and least-expensive location in the metropolitan area, with the expectation that infrastructure will be put in place, if adequate undeveloped space exists closer in. Thus, while sprawl is not the villain it has been portrayed to be, it is without question an unnecessary and increasing drain on natural resources. More compact development patterns produce savings that are both profound and measurable. It makes sense to pursue these development savings. (Growth Plan Preface, p.2)*

Using a variety of fiscal impact models, the study quantifies savings on infrastructure, resources and person costs of more compact settlement patterns. The study concludes with an even stronger message:

*The cost of this locational pattern (sprawl) in dollar outlays and resources consumed is both continuously increasing and basically unnecessary to achieve a very high quality of life. Too much land and infrastructure are being consumed by development. Two sets of infrastructure are being created and both are underutilized: the one Americans are running away from (cities and older developed suburbs) and the one they never catch up with (the new spreading development). This development pattern results in overly high costs to local governments, developers and housing consumers. As a result, taxes are increasing in the older communities due to excessive capacity in their infrastructure and in the sprawl developments due to the need for required systems to serve the new growth, including such physical infrastructure items as community water and sewer.*

*It is possible to accommodate growth in another way – to be more centrally focused in development patterns and to consume fewer resources when development takes place. This is compact development, or smart growth. Smart growth allows all development that would have taken place under uncontrolled growth to occur, but it directs that development to locations where it is more efficient to provide public services. This allows appreciable savings in a relatively short period of time. Resources need not be as aggressively consumed, yet the amount of residential and nonresidential development is not altered. That is the message of this study. Sprawl produces costs in dollar outlays and in resources consumed, but these costs are deceivingly bearable in the short run. The benefits of unrestricted freedom of choice of neighborhood and lower housing costs seem worth the cost. In fact, they probably are. However, these benefits can be achieved through compact development with little loss of freedom of choice or housing value and with significant savings of man-made and natural resources. Smarter growth appears to be a reasonable approach and a relatively easy choice for future development in the United States. Committing to and implementing smart growth is a much more difficult task. (Growth Plan, p. 21)*

Results of local cost analysis include a summary description of regional trends over the last thirty years in eight categories:

* Population change;
* Employment;
* Land consumption;
* Farmland loss;
* School enrollment;
* Poverty and race;
* Family income; and
* Traffic congestion.

These trends document expansion of population from urban parts of the region to suburbs and more rural areas. A clear pattern of rural growth and urban decline is beginning to emerge in the region.

Implications of continuing these trends are discussed in the context of costs and revenues associated with regional growth and decline. The budgets of a sample of 28 communities in the region were examined along with change in State Equalized Value (SEV) and tax rates in all jurisdictions over time to create a clearer picture of fiscal impacts of growth on local governments in the region. While few solid conclusions can be drawn, a picture of the impact of current land use trends on SEV and of potential future tax rates on local land use decisions emerges. Agriculture has declined significantly as a percent of total SEV, with rural residential development taking up most of the slack. Unfortunately, long-term public service impacts of scattered site rural residential development are not often given adequate consideration in this process. Pursuit of a bigger tax base to help pay costs of growth has also led to a number of aggressive actions by cities in the region to either annex land in an adjoining jurisdiction or enter into a PA 425 agreement.

Direct costs associated with new development in a variety of alternative arrangements are illustrated [in the Growth Plan], as are some specific costs associated with particular infrastructure. This information provides a context for intelligent dialogue on costs and revenues associated with growth. Cycles for investment and disinvestment, along with transportation infrastructure investment, are used to illustrate causes and effects associated with sprawl and urban decline.

The Themes and Principles that emerged from the Regional Growth project are examined for sensitivity to fiscal, economic and natural resource considerations. A large proportion of Themes and Principles are found to have fiscal, economic or natural resource dimensions.

The four future land use alternatives, including the adopted “Wise Growth” alternative are examined in light of current trends, conditions and the Themes and Principles. “Wise Growth” is determined to be more fiscally responsive and consistent with the Themes and Principles than other alternatives. Continuing current trends is identified as being most destructive to long-term interests of the region.

Conclusions from this research show implementation of the regional vision will rely heavily on the degree to which local governments in the region embrace the Governance Principles set forth as part of the common vision for the future of the region. Implicitly, if local governments embrace the Governance Principles, as well as the other Themes and Principles, then there is a good chance the adopted “Wise Growth” alternative will be successfully implemented. This would have positive fiscal, economic and natural resource benefits for the region.

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*Analysis of Large Rural Lot vs. a Subdivision or City Lot or Why People Move to the Country*

Planning for sustainable growth in the Tri-County Region requires an understanding of the types of housing choices people are making, why they are making those choices and the likely resultant impacts. To achieve that understanding, the Tri-County Regional Planning Commission’s “Regional Growth: Choices for our Future” project conducted a series of surveys of residents and leaders in Clinton, Eaton and Ingham counties.

The surveys were conducted in 2001 and 2002 and sampled the general population, local elected/appointed officials, business, labor and other community leaders. A separate survey targeted a group of people who had moved from urban areas to more rural areas.

This section summarizes results of those surveys, along with other surveys in Michigan and the nation that sought information related to growth, planning for growth and housing choices. Results of the City of Lansing Housing Market Survey, conducted in 1999 by Gove Associates, is also discussed.

Basic findings of these surveys are:

* There is a nearly universal desire to acquire a larger house, whether in the city or country.
* Those who move from urban areas to rural areas within the Tri-County region responded that the primary reasons were to find quiet and more space. Other surveys suggest that getting closer to jobs and finding better schools are also primary reasons.
* About 43% of city residents expect to move from the city.
* Most people who expect to remain in the city are over age 40, with younger more affluent residents planning to move out.
* There is little difference in education among those remaining in the cities and those choosing to move to the country. However, fewer minorities leave the city for the country.
* Those intending to stay in the city find affordability, access to work and shopping, resale value and neighborhood appearance to be important assets. This and other studies suggest traditional neighborhood design has merits in this region.
* A sizable portion of people who moved to the country may have jobs outside of urban areas.
* There is a high level of support among local leaders for more coordinated, inter-jurisdictional planning, maintaining transportation infrastructure and providing services for elderly and low income populations.
* There is modestly high support among local leaders for improving automobile transportation alternatives, a clean environment and farmland protection.
* Support among local leaders for improving quality of life in cities so fewer families move to the country is not very high. This is in contrast to recognition in the general population in Michigan that cities are important but are not in good shape. Rapid growth of rural areas is of concern to community leaders because:

1. loss of vitality and tax base of aging inner cities, and high costs of just maintaining existing services; and

2. deferred costs associated with sprawling growth outside of cities, the maintenance of which will be a massive burden in the future. These costs and impacts occur to land, water, natural resources and the lifestyle of individuals.

Some costs and impacts of an uncontrolled growth pattern are obvious, while others are hidden and include:

* Travel time to commute to work, school, recreational activities and shopping greatly increases, with time spent in sprawl about 4% greater than in controlled new development.
* Cost in fuel and car maintenance to drive increases. Costs of travel in a sprawl pattern are about 2.4% higher than in a controlled new development pattern.
* Cost to develop and maintain a rural residential lot is likely higher than a city lot (well, septic, electric, driveway, etc.).
* Quality of life reduction in access to culture and community.

Hidden public costs include:

* Conversion of large amounts of land from agriculture, forestry or open space to developed or rural residential areas with a loss of open space, rural character, naturalness. On average,
0.6 acres of land will be converted for every residential unit over the next 25 years.
* Reduced water quality and loss of diversity of wildlife.
* Water, sewer, roads and other infrastructure may need to be extended and capacity increased to treat water and sewage. A difference of a compact versus an uncontrolled development pattern would save 21 million gallons of water a day and over $1.5 billion in the Midwest over next 25 years.
* Gravel roads must be paved and the number of miles of roads and lanes of roads must be expanded and maintained along with existing roads. A compact residential development pattern would save 18,000 lane miles and $9 billion in the Midwest between 2000 and 2025.
* Public service costs generally run at a deficit from residential development, as much as $0.37 per $1 of revenue in some Michigan communities.
* Existing urban centers lose residents and tax base to maintain infrastructure and services.
* Urban centers concentrate poverty and minorities.
* More people live in low-density, fragmented communities and lose a close-knit community spirit.
* Access to jobs declines for people with lower incomes.

Among hidden costs of an uncontrolled growth pattern are the socially unfair decline in access to jobs for lower-income people and creation of large islands within communities of low home ownership. Alternative scenarios such as smart growth have placed an emphasis on protection of open space and land resources when improving regional transportation.

Affordable housing and equity should also be a part of the discussion. There are benefits to sprawl, depending on perspective. These benefits include:

* Large lot sizes away from the city, that appeal to an affluent market segment.
* Communities with households with a variety of tax levels and resulting public services at various levels, appealing to a wide range of markets.
* Lower land and housing costs farther from urban centers.
* Stronger citizen participation in highly fragmented local governments rather than large, single political jurisdictions.

As a result of the impacts to communities, local officials are increasingly interested in promoting regrowth of urban centers and a more controlled, compact development pattern for newly developing areas. Future success will probably be measured in terms of the degree a more compact settlement pattern can meet desires of homebuyers for quiet and open space, or the degree of balance between new rural residential development, as opposed to more compact urban forms and public and private costs associated with each. The more indirect costs of urban sprawl are directly charged to new rural homebuyers, the more “attractive” suburban and urban neighborhoods will become.