

Creating a Sustainable Infrastructure System in Southeast Michigan

July 2010

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Abstract

This report exposes the emerging infrastructure crisis in the region, components of the solution to addressing the crisis, and specific actions that the public and private sector must take to help secure our quality of life and economic prosperity. The services addressed include transportation, water, sewer, and energy.

Preparation of this document may be financed in part through grants from and in cooperation with the Michigan Department of Transportation with the assistance of the U.S. Department of Transportation's Federal Highway Administration and Federal Transit Administration; the Michigan Department of Natural Resources with the assistance of the U.S. Environmental Protection Agency; other federal and state funding agencies as well as local membership contributions.

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Acknowledgements

SEMCOG would like to thank the members of the Infrastructure Task Force, which guided this effort. Their knowledge and diverse perspectives provided insight into the depth of our current infrastructure problem and the actions necessary to change the status quo and move us toward a sustainable system.

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Understanding Southeast Michigan's Infrastructure Crisis

The information and action steps compiled in this report are designed to move the region toward achieving two outcomes:

- Quality infrastructure that is fiscally sustainable, and
- Quality infrastructure that supports the region's economy and quality of life.

A first step in achieving these outcomes is understanding the infrastructure crisis. Southeast Michigan is in a period of unprecedented economic transition. While much of the country continues to grapple with sustainability as it relates to growth, the challenge in Southeast Michigan is to sustain quality infrastructure services while jobs, population, and income are all contracting. Despite this contraction, investment in our infrastructure is more critical than ever, but it must be strategic and based on an understanding of the region's new economic reality.

This report exposes the emerging infrastructure crisis in the region, components of the solution to addressing the crisis, and specific actions that the public and private sector must take to help secure our quality of life and economic prosperity. The services addressed include transportation, water, sewer, and energy.

Revenue Base is Declining

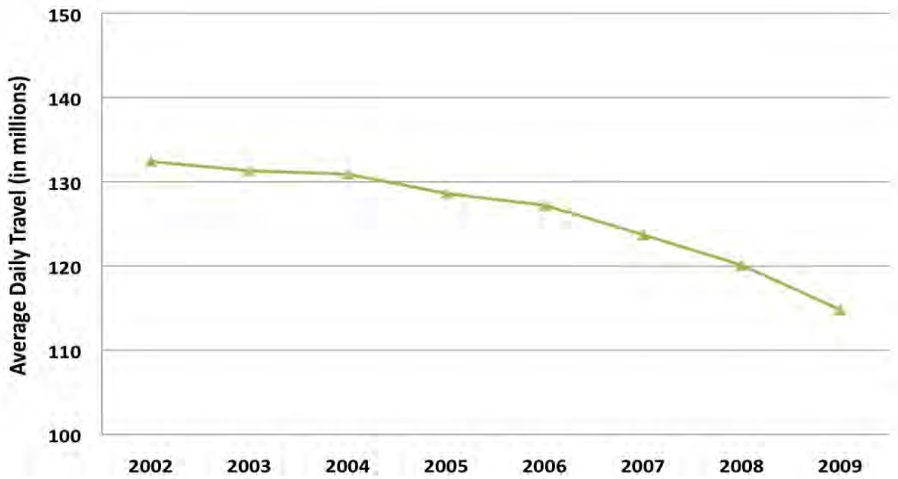
Revenues to support our infrastructure are basically the mathematical product of two factors – base (the number of units being assessed) and rate (the amount each unit is assessed). A fundamental problem with the way we currently fund our infrastructure is that our base is declining. Whether it's gallons of water, kilowatts of electricity, cubic feet of natural gas, or gallons of gasoline, a common characteristic in the region is that base is declining because we are consuming less. Some of this decline in consumption is related to the economic transition and some reflects the high level of importance we now attach to conserving natural resources. If we do not change the way we fund our infrastructure, this means that revenue will continue to decline unless rates are increased.

Since 2002, travel in Southeast Michigan has been declining.

Figure 1

We are traveling less

Vehicle miles traveled in Southeast Michigan

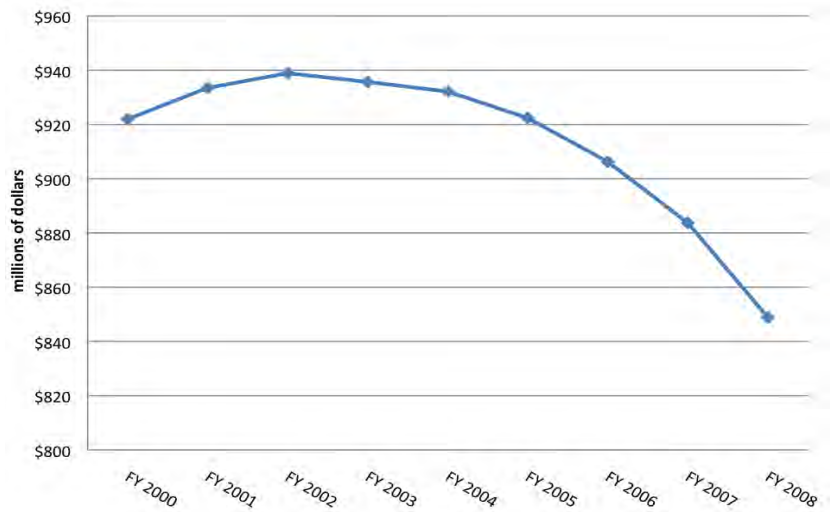


As a result, gasoline sales, and the tax revenue it generates to fund our roadway system, are down.

Figure 2

Less travel means less revenue for transportation

Michigan gas tax revenues



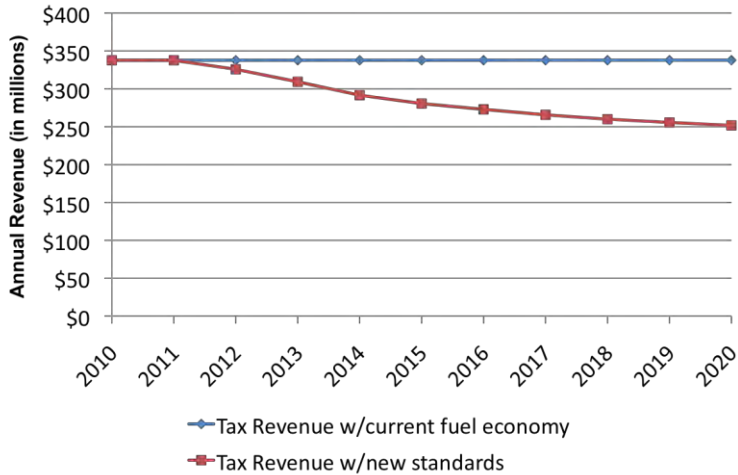
Source: SEMCOG analysis of Michigan House Fiscal Agency data

And, as new vehicle fuel economy standards are phased in, this revenue shortfall will only get worse.

Figure 3

Fuel-efficient vehicles reduce revenues even more

Loss of revenue resulting from new fuel economy standards



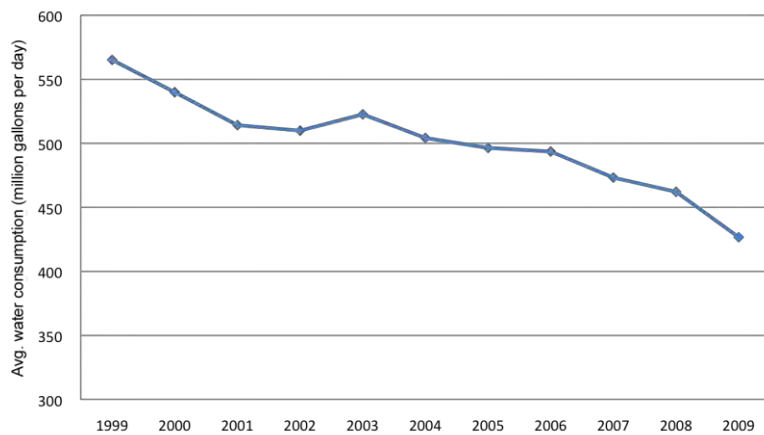
Source: SEMCOG

Water consumption has also been declining, leading to increased rates as the cost of this service must be spread over the smaller number of gallons used.

Figure 4

Water sales are also declining

Average daily water use, Detroit Water and Sewerage Department



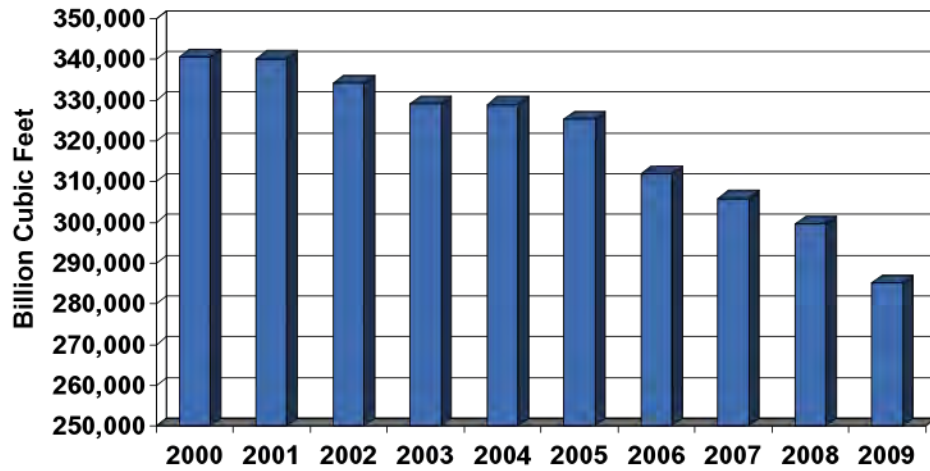
Source: The Foster Group

The story is the same for natural gas and electricity usage. Fewer units are being used leading to less revenue and the need to increase rates to cover revenue shortfalls.

Figure 5

We are also consuming less natural gas

Consumers Energy gas deliveries

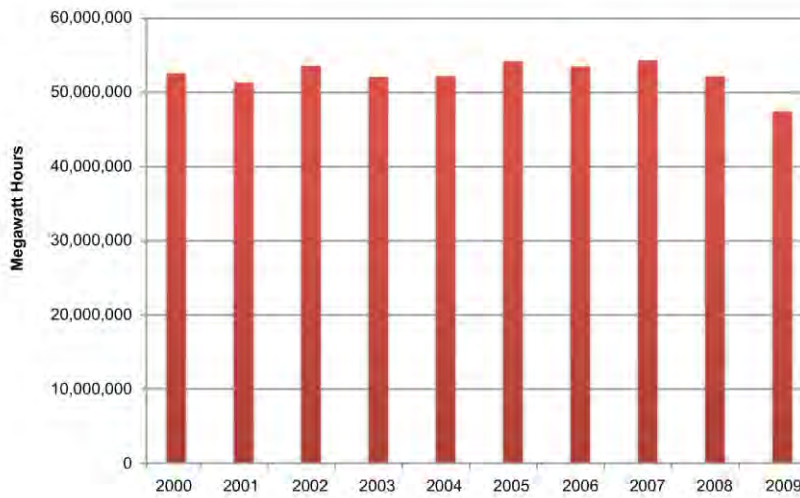


Source: Consumers Energy

Figure 6

We are also consuming less electricity

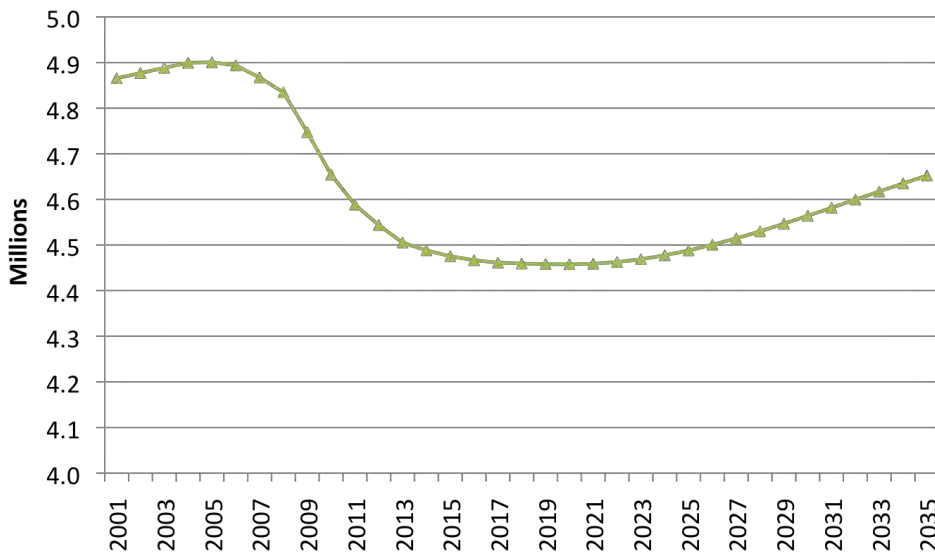
DTE electricity deliveries



Source: DTE Energy

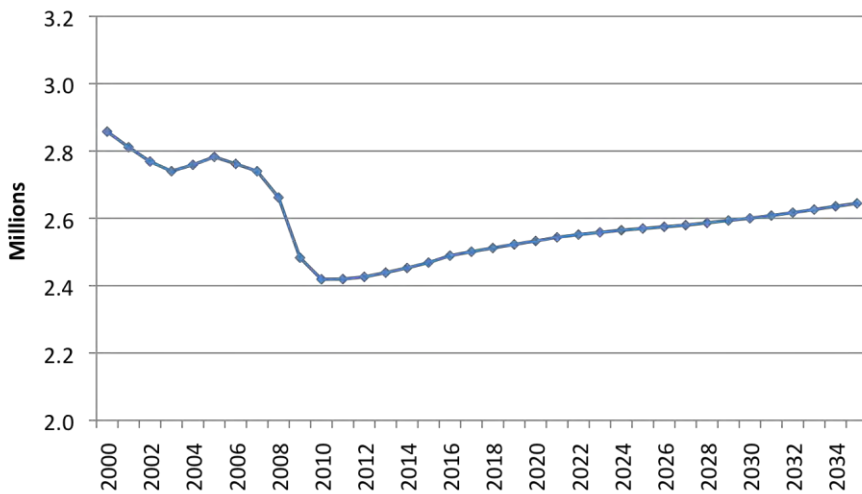
This loss of revenue base is the result of several factors. First, there are fewer people and jobs in the region.

Figure 7
We will have 196,000 fewer people in 35 years
 Southeast Michigan population, 2001-2035



Source: SEMCOG

Figure 8
We will have 213,000 fewer jobs in 35 years
 Southeast Michigan employment, 2000-2035



Source: SEMCOG

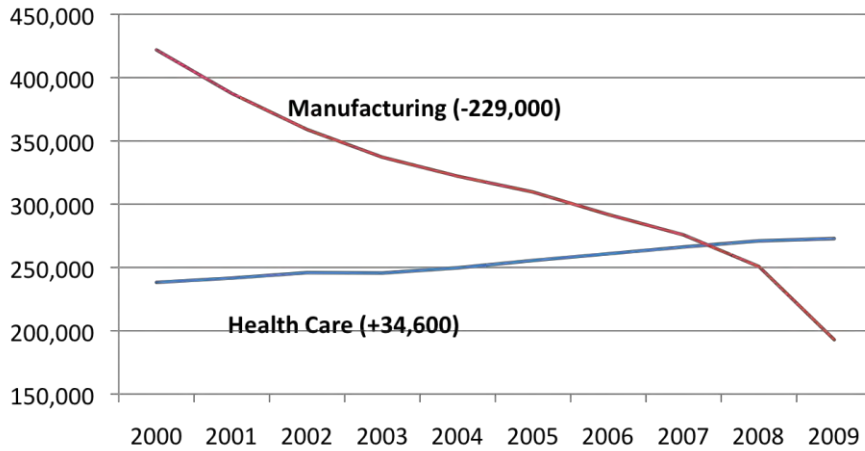
Second, there has been a major shift in the types of jobs available in the region. We have seen a huge decline in the manufacturing sector and these jobs are not expected to return. Instead, we expect future job growth to occur in health care and other service sectors that pay significantly lower wages than the

jobs they are replacing. Notably, jobs in health care now exceed those in manufacturing. The shift away from manufacturing jobs also results in less utility service demand, compounding the loss of revenue from increased conservation.

Figure 9

The shift in jobs lessens utility service demand

Manufacturing vs. health care jobs, Southeast Michigan, 2000-2009



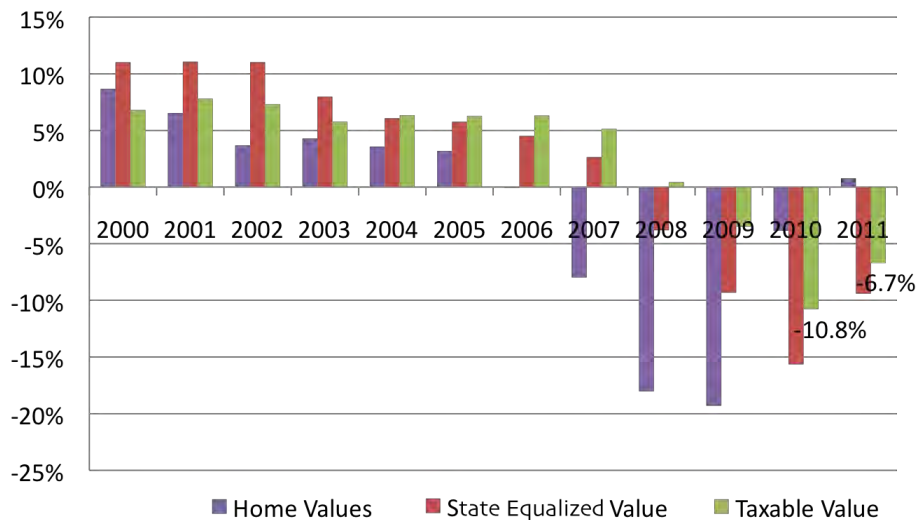
Source: SEMCOG analysis of Michigan Labor Market Information data

A third factor in the decline of the revenue base is the dramatic loss in property value that has occurred over the last several years.

Figure 10

Property-based revenues have plummeted

Yearly percent change in home price, SEV, and taxable value, Southeast Michigan



Source: Michigan State Tax Commission and SEMCOG

Furthermore, as is discussed in more detail later in this report, the declines in property-based tax revenue are largely permanent because of Michigan’s tax structure. Thus, the declines are likely to persist for many years, if not decades. This is significant because, in many communities, property taxes help pay for parts of our infrastructure.

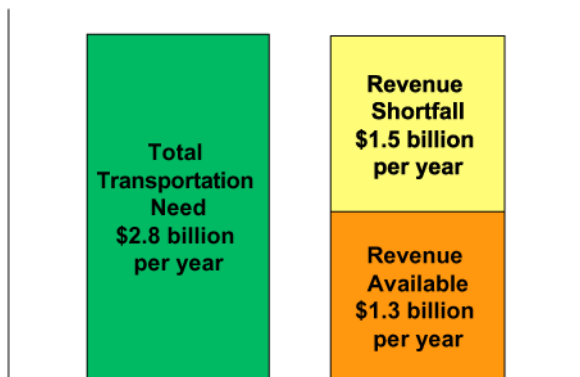
We’re Underinvesting in Our Infrastructure

Infrastructure is the lifeline of our economy and our quality of life. Therefore, revenue directed to support infrastructure services reflects an investment in our economic and environmental well-being. However, over the last several decades, our investment has not kept pace with physical infrastructure needs. At the current level of investment, the quality of much of our infrastructure is declining rapidly.

Figure 11

Transportation investment is far short of needs

Transportation needs vs. funding available

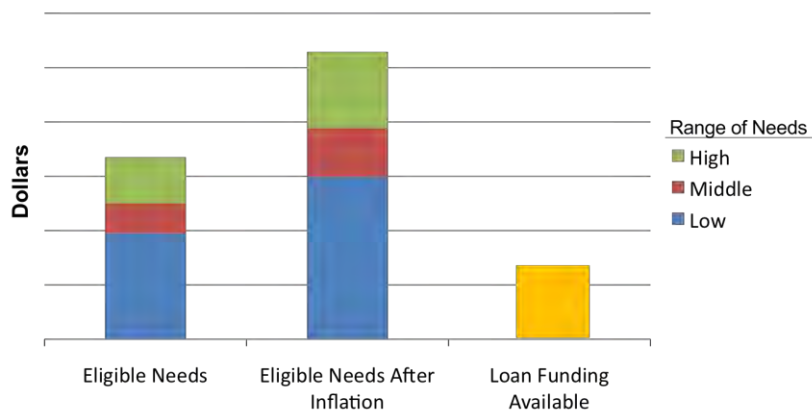


Source: SEMCOG

Figure 12

Water and sewer investment is far short of needs

Sewer needs in Southeast Michigan



Source: SEMCOG, “Investing in Southeast Michigan’s Quality of Life: Sewer Infrastructure Needs,” April 2001

Underinvestment Results in Increased Costs, Not Savings

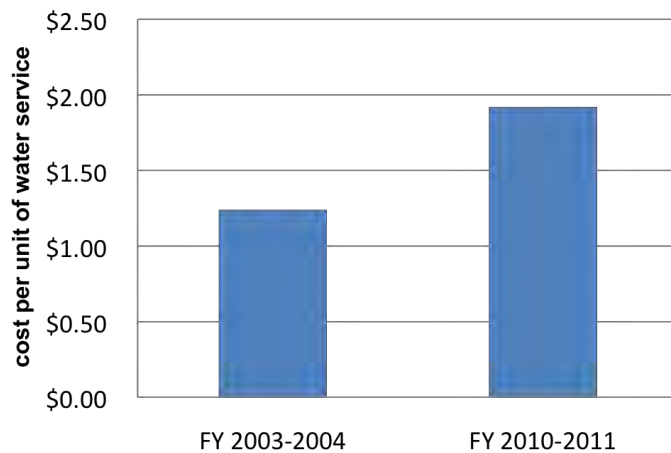
Major infrastructure services have very high fixed costs. Thus, the cost of service is only marginally affected when demand for service declines. Compensating for revenues lost because of declines in infrastructure base requires increases in rates.

A large portion of water and sewer expenses are fixed costs, much of which are associated with long-term capital debt. So, as consumption declines, rates increase to cover these costs. As a result, the cost per unit of services increases.

Figure 13

High fixed costs mean, as consumption drops, unit costs increase

Change in cost per unit of water, Detroit Water and Sewerage Department



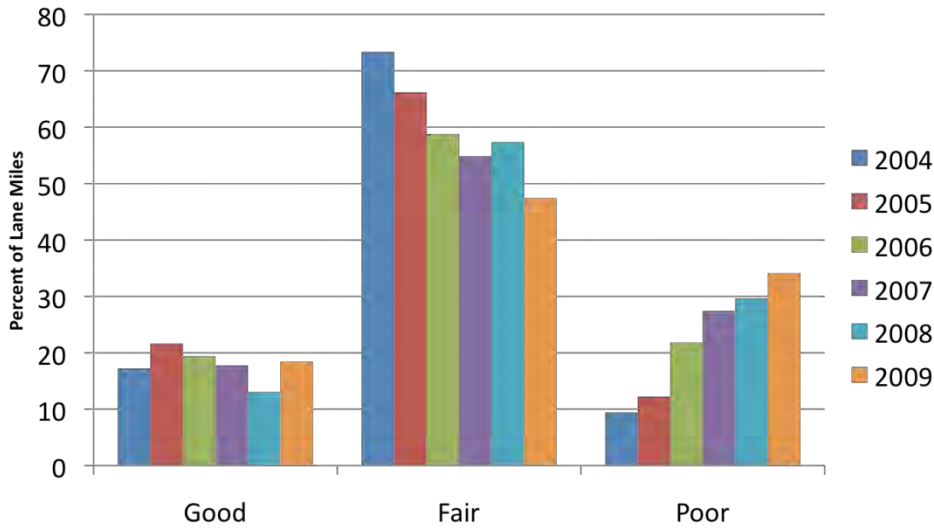
Source: The Foster Group

However, service providers and policy makers are under constant pressure to minimize these rate increases to customers. While deferring maintenance in the short term may appear to save money, it actually results in higher, long-term costs. This is because improperly maintained infrastructure deteriorates at a more rapid rate, the life expectancy of the asset is shortened, and the cost of replacement is much higher.

Figure 14

We're underinvesting in infrastructure

Changing pavement conditions, 2004-2009, Southeast Michigan

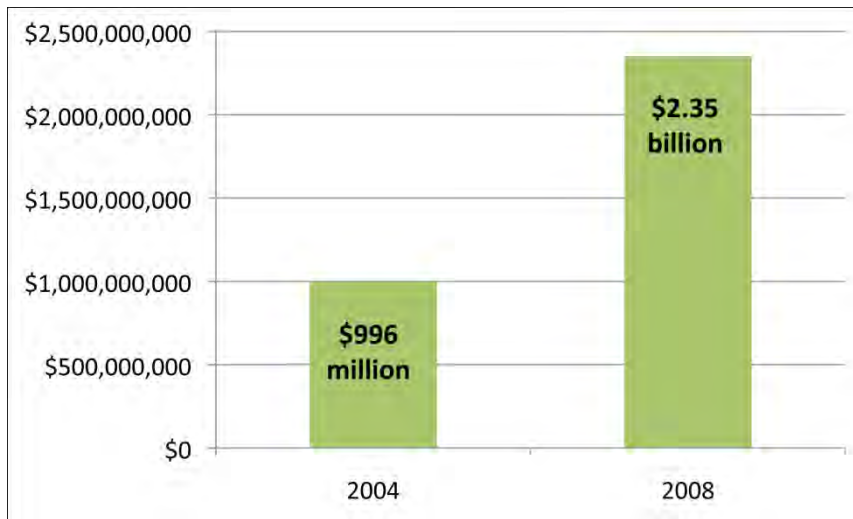


Source: SEMCOG

Figure 15

Underinvestment results in higher costs

Increasing cost of pavement management, Southeast Michigan



Source: SEMCOG

Revenue Formulas and Policies are Fiscally Unsustainable

Formulas for revenue collection to provide infrastructure services, and the policies that guide them, have evolved over decades. This evolution has largely been incremental and disjointed. Formulas and policies are usually changed in response to a specific sector-based issue (e.g., water, sewer, transportation, etc.), involving a short-term perspective that does not consider the long-term true cost of service. While these decisions may have made sense in the time period and context they were addressed, total reliance on user fee systems is no longer fiscally sustainable. The clearest example of this fiscal unsustainability is that revenue formulas largely depend on increasing rates of consumption, but new and emerging policies are focused on encouraging conservation and reducing consumption.

Table 1

Old revenue formulas are inconsistent with current policies

Formula	Current and Emerging Policy
Transportation: based on amount of gas sold	<ul style="list-style-type: none"> • Increase vehicle fuel efficiency to reduce gasoline use • Increase use of alternative-fuels to reduce reliance on foreign oil
Water: gallons consumed	Great Lakes compact encouraging conservation
Energy: amount used	Desire for massive reduction in greenhouse gas emissions to address climate change

This situation is not temporary. SEMCOG’s most recent demographic projections show that Southeast Michigan’s population will continue to decline over the next several years and both population and employment will experience only modest growth thereafter (Figures 7 and 8).

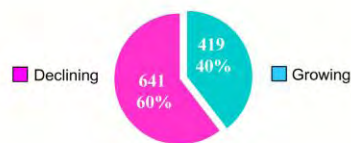
In addition, job growth that is occurring is in lower-paying, nonmanufacturing sectors such as health care. Thus, the fiscal capacity of residents to pay for infrastructure services and other necessities, is declining.

Table 2

Benefits of job growth are tempered by lower wages

Growing and declining industries in Michigan, 2002-2007

	Number of Industries	Employment				Average Wage	
		2002	2007	Change	% Change	U.S.	MI 2007
Growing	419	1,493,461	1,698,384	204,923	13.7%	12.2%	\$36,000
e.g. temporary help services, restaurants, hospitals, home health care services.							
Declining	641	2,224,534	1,820,614	-403,920	-18.2%	0.6%	\$50,000
e.g. automobile manufacturing, managing offices, vehicle parts manufacturing.							



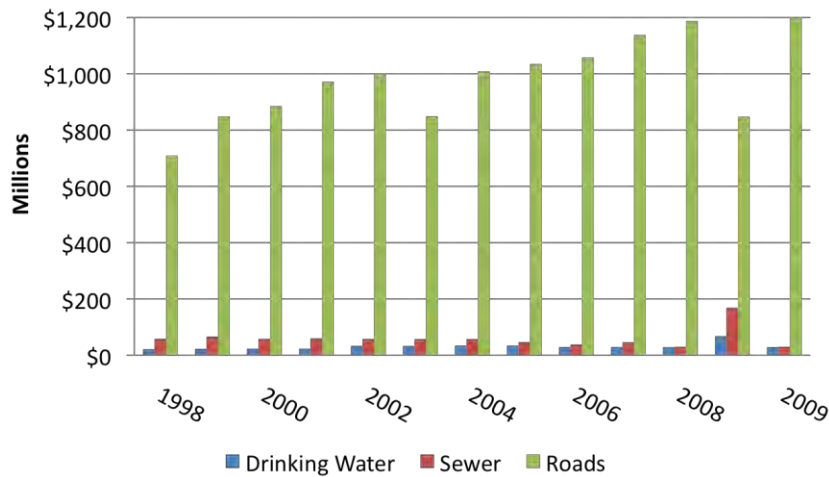
Source: U.S. Bureau of Labor Statistics, Don Grimes

In addition, some infrastructure investment hinges on increasingly obsolete revenue sources. For example, federal funding for water and sewer infrastructure has been dramatically reduced over the last 30 years and is just a small fraction compared to funding for roads. Yet communities often decide on implementing projects based on whether or not they can obtain this funding.

Figure 16

Federal support of most infrastructure is minimal

Federal dollars to Michigan for water, sewer, and roads



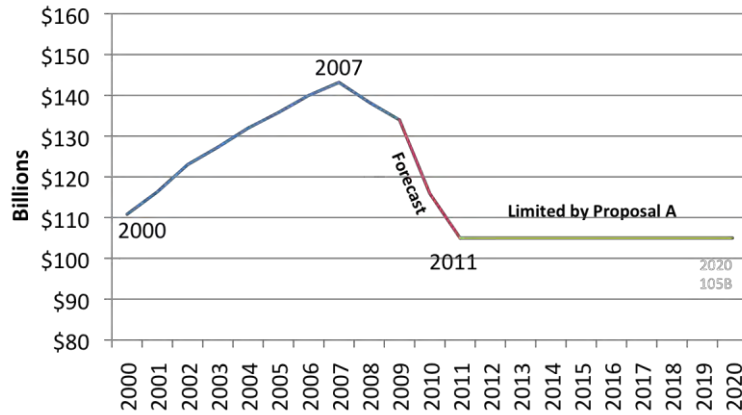
Source: SEMCOG

Furthermore, the structure of Michigan’s current property tax laws, resulting from the combination of the 1978 Headlee Amendment and the 1994 School Finance Reform (Proposal A), mean that the dramatic loss of tax revenue from the sharp drops in taxable property value cannot be regained, even when the economy and the housing market recover. This is because future tax increases on anything other than new development are limited to the rate of property value increase or the rate of inflation, whichever is less. So, after accounting for inflation, the purchasing power of tax revenue stays flat. Worse, if property value growth is less than the rate of inflation, purchasing power declines even further. This will impact a local government’s ability to afford investments in certain infrastructure activities.

Figure 17

Most property tax revenues are “capped” where values hit their lowest point

Taxable property value, Constant dollars, 2000



Source: SEMCOG

Southeast Michigan’s Declining Fiscal Capacity is Compounding the Problem

The loss of base for revenue collection is a major problem in itself. In southeast Michigan, the problem is compounded by monumental changes in fiscal capacity. Data from the U.S. Census Bureau’s American Community Survey shows that between 2000 and 2008:

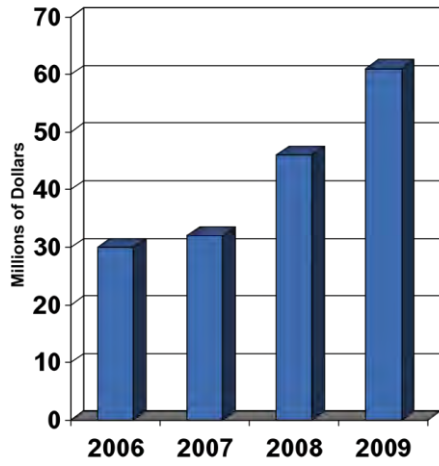
- Income in the region declined 16.1 percent
- Housing cost as a percent of income increased 18.1 percent
- Utility cost as a percent of income increased 21.2 percent

And as utility costs consume a greater portion of household income, more people fall behind in their payments, further reducing utility revenues.

Figure 18

Loss of revenue from unpaid bills is growing rapidly

Consumers Energy uncollectibles

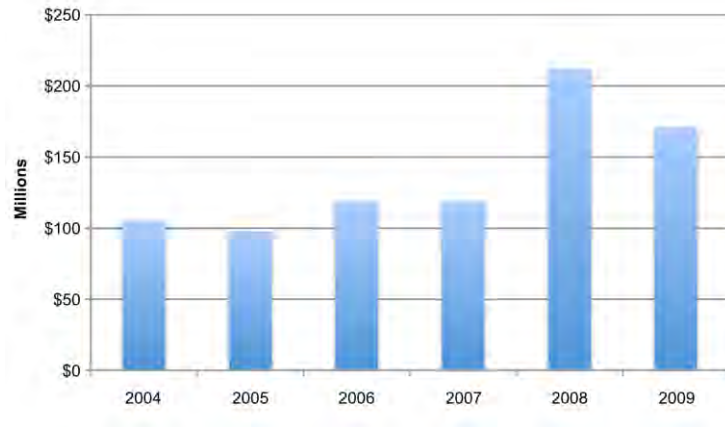


Source: Consumers Energy

Figure 19

Loss of revenue from unpaid bills is growing rapidly

DTE Energy total uncollectible expense



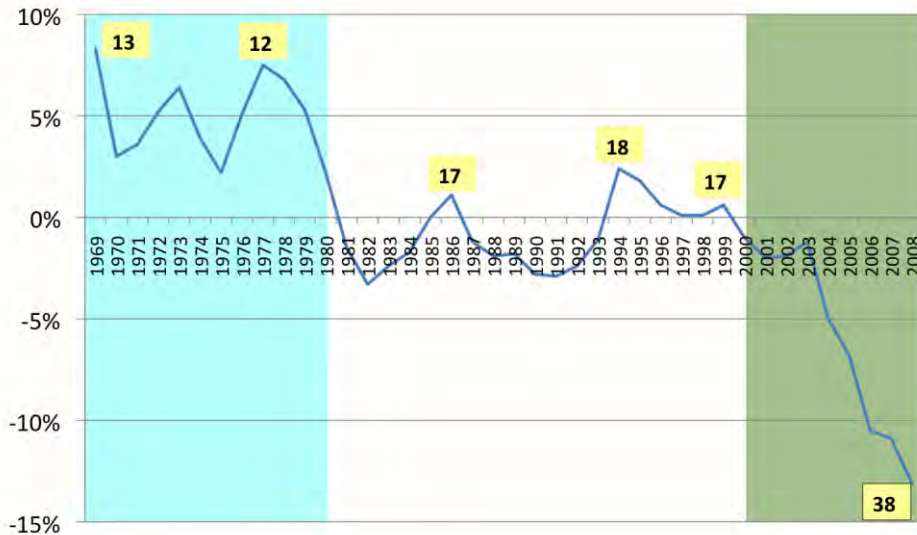
Source: DTE Energy

Another confirming indicator of declining fiscal capacity is Michigan's per capita income ranking, compared to the national average.

Figure 20

The decline in our fiscal capacity is staggering

Michigan per capita income, Deviation from national average, 1969-2008



Source: U.S. Bureau of Economic Analysis and Research Seminar in Quantitative Economics (RSQE)

From 1969 to 1980, Michigan ranked high in per capita income compared to the rest of the nation. Between 1980 and 2000, this ranking periodically dipped, but the state remained in the top half of the country. However, since 2000, as we experienced unparalleled job losses in our manufacturing industry, the state's ranking has plunged to 38th in the country.

Southeast Michigan's reduced fiscal capacity creates a conundrum that will require courageous action to address. At the very time our fiscal capacity is declining, our level of infrastructure investment needs to increase in order to support our business community, create a more competitive economic climate, and maintain a high quality of life for our residents.

Some have argued that the solution is an infusion of funding from the federal government. But it is becoming increasingly difficult for the state and local governments to tap available federal dollars due to a lack of required matching funds. Furthermore, the mounting federal debt will likely result in significant curbs in future federal spending. Thus, relying on the federal government to solve our infrastructure problems would be risky and unwise.

Regional Transformation is Resulting in Misalignment in Infrastructure Supply and Demand

Changes that have already occurred in the region, along with future forecasts of the growth and distribution of population and jobs, reveal a misalignment in supply and demand for services. While the most visible and publicly discussed example of this misalignment is occurring in the City of Detroit, smaller manifestations exist in other parts of the region. The key indicators of this misalignment are

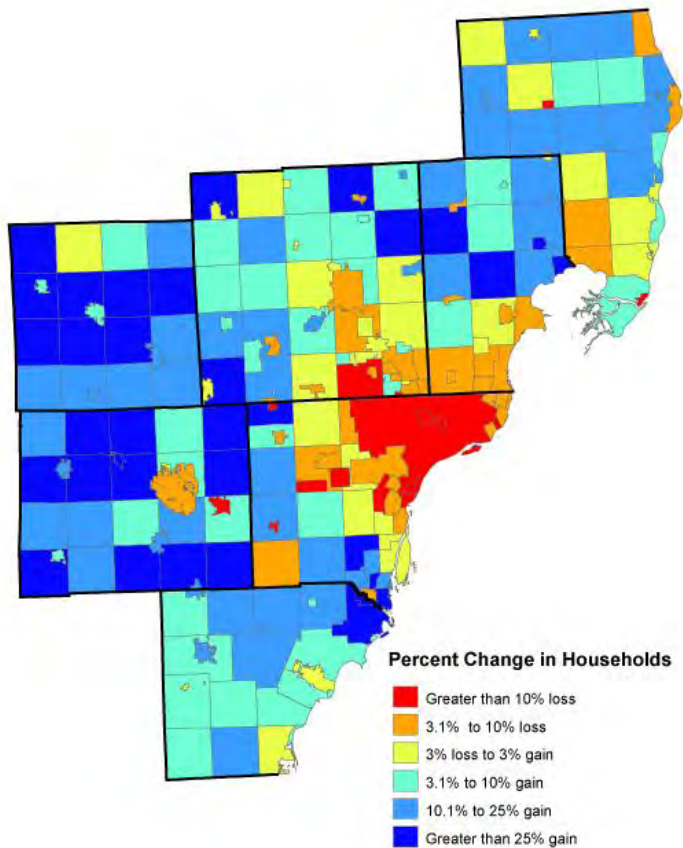
shown in the following two charts: household change by community (Figure 20), and a historical examination of the region's population (Figure 21).

Even though the region's population in 2010 is very similar to population levels in 1970, most land was developed after 1970. This means we have more area to cover with infrastructure services with about the same number of people to pay for those services and, as shown in previous sections, the per capita fiscal capacity in the region has already declined significantly.

Figure 21

The location of infrastructure demand is changing

Household change by Southeast Michigan community, 2000-2010

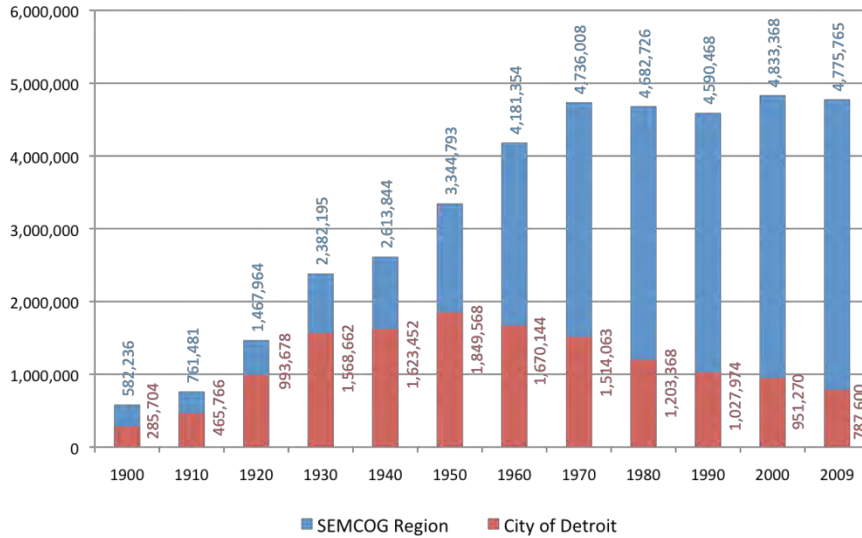


Source: SEMCOG

Figure 22

Despite development over the past 40 years, the region’s population is largely unchanged

Southeast Michigan population, 1900-2009



Source: SEMCOG

The scarcity of fiscal resources available to invest in infrastructure, documented in previous sections of this report, makes it imperative that we address this misalignment as part of the overall strategy for the region. While both population and jobs will eventually begin to grow again, both will still be well below their 2000 levels by 2035. We need to realign our infrastructure to balance it with the reduced demand in the foreseeable future.

Our Needs and Expectations for Service Drive Costs

By their very nature, service providers are in the business of delivering on the expectations of customers. System designs reflect these expectations which are that service will be provided under almost any set of circumstances. In fact, the vast majority of time, providers have been able to deliver services regardless of system stressors. But designing infrastructure so that services can be delivered under almost any set of circumstances comes at a high cost. For example, many parts of an infrastructure system are infrequently used but must be kept ready for use during rare peak periods of demand. Complicating the issue is that other infrastructure must be in place to assure strict standards for environmental protection are met during these rare peak periods.

Table 3

Our current model for providing services must change

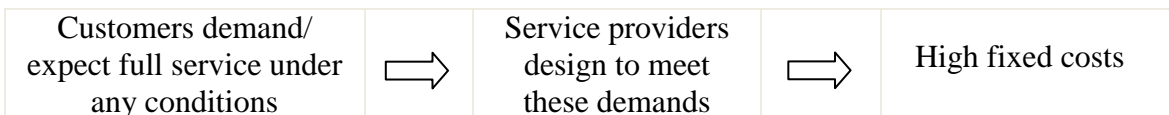


Table 4

Meeting all the service expectations is increasingly cost prohibitive

Expectation	Infrastructure Implication
Water pressure under any circumstances	Pumping and transport capacity built to support peak usage levels
Minimal to no traffic congestion	Expansion of roads
Clean lakes and rivers	Increasingly stringent standards
Power on demand	Must design for generation and delivery during rare/infrequent peak usage

Regulations Are Not Accompanied by Resources

While adopting mandates without providing resources to fund their implementation is prohibited by state law, the Citizens Research Council recently concluded that this “has been disregarded by all branches of the State government in Michigan”.¹ As a result, there has been an accumulation of numerous new mandates on local governments, compounding the fiscal stress associated with structural issues already described.

Table 5

Our current regulatory model must change



No One is Responsible for the Bigger Picture

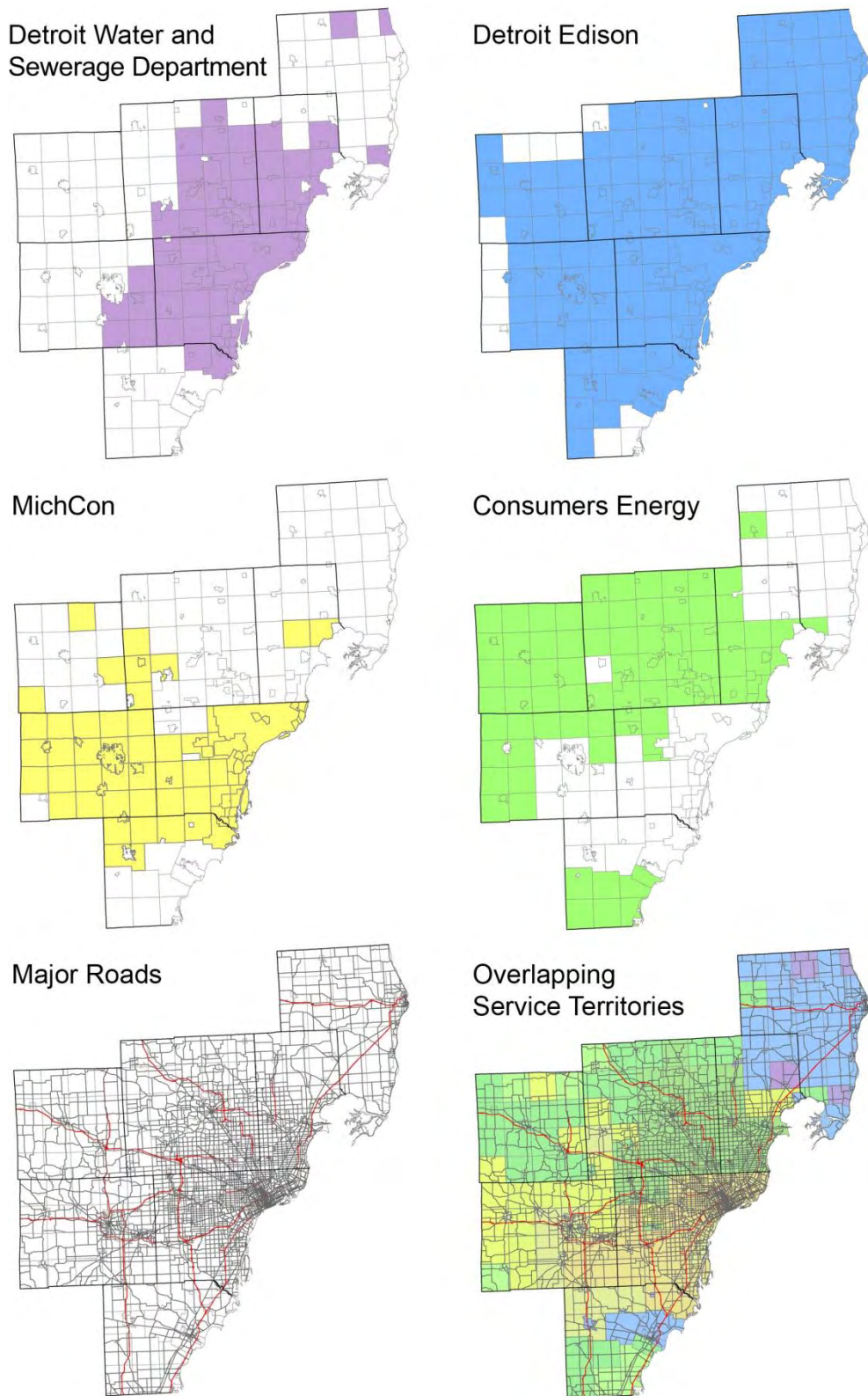
For the most part, institutions were created to deliver single services. The decision process for delivering a particular service had a singular focus, often independent of the effects of that process on other service providers. But in reality, expectations of efficiency, reduced costs, quality service, etc., can only be met through coordinated, holistic decision making that recognizes all these different services have an impact on each other and comprise a single, interdependent, infrastructure system. Figure 22 illustrates this point, by showing the overlapping territories of various service providers.

¹ Citizens Research Council of Michigan, *Reforming the Process for Identifying and Funding Section 29 Mandates on Local Governments*, Report 355, July 2009.

Figure 23

Maximizing efficiency requires collaboration

Overlapping service territories in Southeast Michigan



Actions to Create a Sustainable Infrastructure System

Continuation of the status quo will result in further infrastructure deterioration and higher costs to residents and businesses in the region. Some problems with the status quo are legal or institutional in nature. Others are a result of our collective expectations of service and the cost of service. Both must change.

Specific actions to change the status quo and confront our infrastructure problems are listed below. There is much to be done and there are too many overlapping complicated issues to undertake all at once. Yet, we must move forward aggressively with those actions that have the highest priority. Others will be tackled later in the process.

Reduce Costs

It is clear that the fiscal capacity of the region to finance infrastructure services is limited and most likely inadequate. It is imperative that service providers aggressively evaluate and pursue all possible cost reduction measures. Our collective ability to address several of the other necessary action steps will largely hinge on our successful pursuit of cost reduction measures. Everything must be on the table.

Priority Action: Examine the potential cost savings of differing levels of service and demand for energy, water, sewer and transportation systems.

Rationale: Decisions about how to allocate limited resources will be difficult and emotionally charged. We need to inform that decision-making process with good information on potential cost savings so that the various choices available, and the consequences of those choices, are clear.

Process & Responsibility: As the regional planning agency responsible for transportation planning, SEMCOG should work with the major service providers to implement this action step. Initially, this effort should focus on DTE Energy, CMS, and DWSD.

Priority Action: Reduce costs by optimizing efficiency of the overall infrastructure system

Rationale: While initially, infrastructure efficiencies can and should be pursued on a sector by sector basis, maximizing efficiency will necessitate a high degree of coordination between service providers.

Process & Responsibility: This is a key component under “Institute Collaboration Amongst Service Providers.”

Action: Implement technological innovations that reduce costs.

Rationale: Policies and programs for managing infrastructure need to be updated to take advantage of potential savings from technological innovations. Once the cost saving potential is understood, it can serve as a catalyst for implementation.

Process & Responsibility: Convene experts representing key areas of service – roads, water, sewer, and energy – to identify current and cutting-edge technologies that could be applied in and between various sectors.

Action: Incentivize efficient use of service

Rationale: Forcing changes in consumer behavior to reduce overall system costs would be polarizing and the subject of lengthy debate. Alternatively, incentives which promote behavioral changes that truly reduce the cost of service would preserve choices and thus have a greater chance of succeeding. These incentives need to be institutionalized.

Process & Responsibility: Using the analysis of cost savings associated with different levels of service (Action Step 1), develop a specific list of incentives. SEMCOG should work with the major service providers to implement this action step. Initially, this effort should focus on DTE Energy, CMS, and DWSD.

Action: Pursue cost savings through legislative and regulatory reform, at all levels of government

- Identify and analyze specific policy/regulatory/legal reforms with significant potential to reduce costs.
- Specifically identify areas where multiple regulations, enacted independently, have a compound impact on cost.
- Assess pros and cons of reforms based on how desired outcomes are impacted.
- Investigate alternative standards and performance measures as well as methods to meet them (e.g. several hundred million dollars are being saved as part of a redesign combined sewer overflow project in the City of Detroit.)

Rationale: Many current laws and regulations were adopted without considering the impact they have on the efficiency and effectiveness of service design and delivery, particularly when combined with other regulatory policies. These regulations and standards must be identified and examined to determine if the desired regulatory outcome can be achieved in a way that is more efficient and fiscally sustainable.

Process & Responsibility: The major service providers should convene and develop a list of proposed regulatory reforms, associated cost savings, and the impact of those reforms. This should be presented to the Michigan legislature and appropriate regulatory agencies.

Action: Reduce the cost of labor consistent with the permanently changed fiscal realities of government.

Rationale: Southeast Michigan has undergone a major economic transformation, resulting in legacy costs for service providers that are no longer fiscally sustainable. We must reevaluate these costs in view of the region's new economic reality.

Process & Responsibility: Service providers should work with unions to explore contracts that will help reduce overall cost structures, both current and future costs.

Redesign Revenue Collection Systems

Existing revenue collection systems have incrementally evolved over a period of decades. A common denominator is that the formulas for supporting investment in infrastructure heavily depend on consumption. Yet policies at the federal, state, and local level increasingly emphasize conservation. This effort to achieve environmental sustainability is inconsistent with our need to achieve fiscal sustainability.

Another common denominator is that current formulas often contain hidden subsidies. Furthermore, they often do not reflect all of the costs, both short term and long term, of the service. Thus, the current formulas do not reflect the true (total) cost of service. If we are to achieve fiscal sustainability, we must acknowledge and pay for the true cost of service.

Priority Action: Identify components of true cost of service revenue structure for water/sewer, transportation, energy, etc.

Rationale: Before we can effectively evaluate alternative infrastructure funding formulas, we must first understand all the components of a true cost of service system. At a minimum, these include construction, long-term maintenance, seasonal maintenance, replacement, debt service, and legacy costs.

Process & Responsibility: The major service providers should develop a scope of work to undertake this task and pool resources to have it implemented.

Priority Action: Identify and evaluate alternative formulas to fully pay for investment in infrastructure considering:

- Compatibility with environmental policies for conservation
- Fiscal sustainability
- Equity
- Consistency with true cost of service principles
- Quality of service to residents and businesses
- Other?

Rationale: Implementing new formulas for investment in infrastructure that achieve the objectives above will be predicated on compelling arguments demonstrating the benefits to the region. While this will be extremely difficult, this effort will help the region achieve independence and control of its own destiny. Recognizing there are multiple ways to accomplish this objective, a thorough analysis of alternatives must be undertaken.

Process & Responsibility: SEMCOG should facilitate this effort with the major service providers. The product should be a proposed array of formulas for infrastructure funding for consideration and adoption by decision-makers, including local elected officials as well as business groups and organizations.

Action: Seek commitment to identifying and disclosing the true cost of service and reflecting this cost of service in rates and other revenue generation tools.

Rationale: The first step in developing a revenue collection system that adequately meets current and future infrastructure needs is to acknowledge that the current system does not reflect the true cost of service and that it must do so if we are to achieve fiscal sustainability.

Process & Responsibility: SEMCOG will draft a model resolution and seek its endorsement by service providers in the region.

Institute Collaboration Among Service Providers

A number of recommended actions require a high degree of collaboration between service providers. Some of this collaboration is at the tactical, on-the-ground implementation level. Some is at the strategic planning level. While the details may be complicated, there are certain opportunities for collaboration which are ripe for implementation. Examples include meter installation and reading, asset management, and sharing of equipment. These opportunities will serve as building blocks for evolving even higher degrees of collaboration in the future.

Priority Action: Seek formal agreements to cooperate between service providers

Rationale: A number of actions to successfully confront the infrastructure challenge in the region require a high degree of collaboration among service providers. Meaningful and long-lasting collaboration will not occur unless it is formalized and institutionalized.

Process & Responsibility: SEMCOG should convene the major service providers to develop and adopt an inter-agency agreement committing to a formal partnership. Lessons learned from existing agreements should help guide this process.

Priority Action: Focus initial efforts on developing and coordinating asset management programs as well as technological innovations.

Rationale: There is broad acceptance and recognition that asset management is a core function of an efficient infrastructure system. There is growing recognition that asset management and implementation of technologically innovative strategies cannot be successfully accomplished in a vacuum because there is a high degree of interdependence in services. While more complicated forms of collaboration are being pursued, efforts to begin coordinated asset management and application of new technologies should be started immediately (one example is that SEMCOG is now sharing information with DTE on the location of transportation projects).

Process & Responsibility: Through the inter-agency process in Action 1, begin to institutionalize coordinated asset management.

Priority Action: Develop a pilot project to facilitate formal collaboration between local government planners and private utilities.

Rationale: Changes to long standing practices are difficult to undertake particularly when they involve multiple organizations. Having a successful pilot project will help build acceptance.

Process & Responsibility: Through the inter-agency process in Action 1, develop a pilot project to serve as a model for collaboration and cooperation.

Strategically Invest and Disinvest to Make Efficient Use of Infrastructure

Continued limitations on financial resources require a much more strategic approach to infrastructure investment. Scarce resources must be focused on areas with maximum potential. In addition, we need to right-size and support lower cost infrastructure alternatives in areas where it is, and will continue to be, underutilized. (Note: There is a single Process & Responsibilities section below for this solution component.)

Action: Focus economic development primarily in areas where quality infrastructure capacity already exists and plans call for utilization: local master plans, economic development plans, etc.

Rationale: The demographic and economic changes in the region have resulted in some degree of excess capacity. Use of this existing capacity should be a priority.

Action: Work collaboratively to determine locations where infrastructure will likely continue to be underutilized and implement actions that lower costs by downgrading, downsizing, and/or decommissioning.

Rationale: In addition to excess capacity, it is clear that available fiscal resources are inadequate for maintaining the existing system. Strategically investing limited fiscal resources means that certain parts of the infrastructure may need to be decommissioned.

Process & Responsibility: The priority action, “Examine the potential cost savings of differing levels of service,” will yield critical information on the benefits of more strategic investment. One outcome of that effort will be input to this process of identifying areas for investment and disinvestment.

Manage Infrastructure Based on Holistic View of Needs and Outcomes

Limitations on available resources in Southeast Michigan are well documented. The existing “system” for determining current and future levels of investment is largely based on single issue advocacy (e.g., roads, transit, water, energy). Optimal, strategically targeted investment will not materialize unless a more holistic policy approach is created and implemented. This will require commitment from leaders throughout the region. The complexities associated with this holistic approach suggest it is part of the longer-term strategy.

Action: Convene leaders in the region to establish targeted outcomes based on a comprehensive view of needs with emphasis on sustainability.

Rationale: There is no single entity responsible for the delivery of primary infrastructure services. This necessitates the convening of leaders in the region to establish the needs and outcomes that must be accomplished on behalf of the region’s citizens and businesses. These outcomes can then be used to guide a wide array of decisions and to benchmark progress. For example, a desire to control our own destiny by reducing reliance on federal and state funding has reverberating effects on the structure of infrastructure financing.

Process & Responsibility: DTE Energy, CMS, and SEMCOG should work with leaders in the region to establish agreed upon outcomes for infrastructure services in Southeast Michigan.

Action: Address options for revenue reform in the aggregate (water, sewer, roads, energy) for such factors as sufficiency to fund services, fiscal sustainability, economic viability, and competitiveness.

Rationale: The single-issue focus of the past will not serve the region well in the future, particularly with the severe economic constraints that are long-term in nature. Therefore, we need to assess the inter-relationships and compatibility of various options for revenue reform between service sectors.

Process & Responsibility: SEMCOG should facilitate this effort with the major service providers. The product should be a proposed array of formulas for infrastructure funding for consideration and adoption by decision-makers including local elected officials as well as business groups and organizations.

Develop an Agenda for Specific Legislative/Regulatory Reforms

Past is not prologue. Confronting the infrastructure crisis in the region requires modification of some past practices to reflect current and future conditions. Some practices in need of review relate to how we pay for infrastructure. Other practices relate to what we are trying to accomplish with our infrastructure (e.g., levels of service, complying with environmental standards, etc.). Revisiting some past practices is necessary to create a healthy dialogue about what we are doing and how we are doing it. This will result in identifying opportunities for efficiency and cost reduction. An initial list of measures to address follows, which is supportive of other ongoing efforts more targeted towards enabling collaboration in general. (Note: There is a single Process & Responsibilities section below for this solution component.)

Priority Action: Evolve existing programs/policies to reward good infrastructure management

Rationale: To the extent that some level of federal and state support for infrastructure continues, the system(s) for allocating resources should reward organizations that more aggressively implement management programs. This would be an incentive to implementing best practices.

Priority Action: Define reasonable risk thresholds and change regulatory restrictions on risk.

Rationale: Regulatory agencies traditionally have assessed the quality, safety, and efficacy of public health standards by evaluating the benefits and risks of a single proposed standard without consideration of return-on-investment considerations. With ongoing constraints on revenue available for infrastructure, consideration of standards must include relative efficacy measures. Relative efficacy measures would evaluate the benefit/cost of a single proposed regulatory standard against the benefit/cost of competing regulatory standards using return-on-investment principles so as to rationalize spending of scarce revenue resources.

Action: When redesigning revenue collection systems, allow for restructuring of public debt.

Rationale: One consequence of the decline in public sector revenue, whether from taxes, fees, or assessments, is that outstanding fixed debt service requirements absorb a higher-than-projected proportion of available revenue, aggravating the strain on operating budgets. Both state and federal law should be modified to permit greater public sector flexibility to restructure debt requirements to match reduced revenue streams.

Action: Remove constraints on collaboration between government and private sector.

Rationale: The current legal structure may impede progress in achieving the collaboration referred to throughout this report. Rather than a constraining environment, we need to create an environment that enables cooperation.

Action: Enable more options for funding infrastructure and cease unfunded mandates.

Rationale: The budgetary problems of both federal and state government are likely to result in limited support, at best, for our necessary investments in infrastructure. Local governments, confronted with the need to provide quality services absent outside support, will need as many tools as possible to enable local funding. Further, we cannot continue exacerbating the mismatch between outcomes mandated by state or federal action and the unwillingness to pay for those outcomes.

Process & Responsibility: SEMCOG should convene a group including the major service providers and other key stakeholders in both the public and private sector. This group should develop a specific list of recommended statutory and regulatory revisions including those identified under the Reduce Costs Action Step 5 “Pursue cost savings through legislative and regulatory reform.”

Education and Disclosure

Education is a key component to affecting the changes outlined above. Elected officials, businesses, the media and the general public must all develop a better understanding of the infrastructure issues our region faces and the changes that are necessary to establish and maintain an integrated system of quality infrastructure that supports the region’s economy and is also fiscally sustainable. (Note: There is a single Process and Responsibilities section below for this solution component.)

Priority Action: Educate local officials on true cost of service principles and the benefits of their application. Disclose the impacts and benefits of varying levels of infrastructure investment, both short term and long term.

Rationale: Local elected official support is critical to securing support for the various actions steps in this document. There needs to be a broad understanding of the short- and long-range implications of different levels of investment in our infrastructure system.

Priority Action: Continuously work with the media in an effort to communicate our choices for managing infrastructure and the pros and cons of those different choices.

Rationale: The media presents another opportunity for communicating with the general public. Without an organized effort to communicate with the media on the topic of infrastructure, reporting will be random and disjointed.

Process & Responsibility: SEMCOG should accept lead responsibility for leadership and guidance of this overall effort. The implementation of specific steps will require the support of numerous agencies of government and the private sector.

Action: Develop educational tools (including use of social media) for local governments, utilities, and transportation providers to educate the public on such topics as:

- True cost of service
- How revenue is used
- Actions taken to reduce costs
- Consumer choices that reduce cost of service/peak demand
- Consequences of inaction
- Other

Rationale: Broad-based support from the general public will also be needed to secure support for the actions steps in this document. Local governments and utilities are best suited to conduct this outreach through their existing communication tools (e.g., mailers, newsletters, cable television, etc.).

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