

SRF Group Handout April 6, 2011

- Executive Summary of 2001 Regional Sewer Needs Study
- Excerpts from 2010 report “Creating a Sustainable Infrastructure System in Southeast Michigan”
- Taxable Value Change in Southeast Michigan

Key Points

- “Need” is driven by more than just the physical condition of the systems. It is also driven by fiscal condition.
- Between 2007 and 2010, Taxable Value declined 17%.
- By 2013, SEMCOG’s current projection is the decline will reach 32%.
- Generally, that part of fiscal condition related to any revenue derived from the value of property will not improve much for at least many years. So, local government services funded from revenue based on property value will be provided with about 67% of the resources previously available.
- Local governments perception of fiscal condition and ability to “do things” is heavily influenced by taxable value.
- Point of consideration for the group as an overarching principal that might guide the recommendations. We need to be careful not to get too wrapped up in a debate about the quantified need in sewer projects. If we focus on recommendations that stimulate investment in sewer collection and treatment systems, and if the need is as great as many of us think it is, we would expect that more of the money would be used, and used at an expedited pace. The state gains from jobs created, investment in infrastructure, and improved water quality. If the “need” is not as great (or the incentives are inadequate) then the funding would not be used as quickly. But nothing is lost. On which side do we prefer to err?

Executive Summary

A key theme of the *Water Quality Management Plan for Southeast Michigan* (Plan) is that improving and sustaining our rivers, streams, and lakes requires attention to and action on, a wide range of contributors to water pollution. One prerequisite to achieving clean water is a sewer system that adequately serves the needs of existing and future populations of the region. Understanding sewer-related needs, present and future, is the first step in determining what actions are needed to provide for adequate sewer infrastructure.

This report represents the most comprehensive attempt, to date, to put a price on costs associated with maintaining, fixing, and sustaining the region's sewer infrastructure. Without solutions, problems will worsen and costs will increase. SEMCOG will use this report to help educate and prepare decision makers and planners for the challenge ahead.

There is a serious shortfall in fiscal resources needed to sustain Southeast Michigan's aging sewer systems. Over the next 30 years, an additional \$14-26 billion will be needed to maintain and improve the region's sewage collection and treatment systems. These estimates grow to \$29-52 billion when inflation and interest charges on borrowing for capital projects are considered.

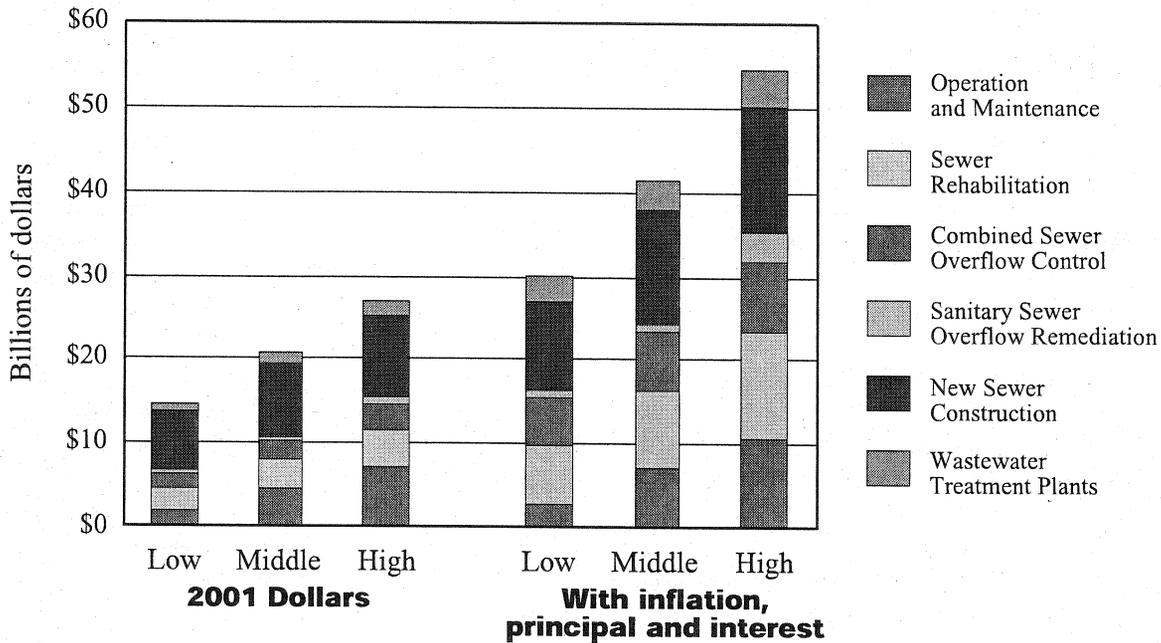
Left unresolved, current unmet needs will lead to even greater problems in the future. Collapsing service in older, urban areas will inhibit urban revitalization efforts and push additional sewer development into greenfield areas — in turn, creating even more infrastructure that will be costly to build and maintain.

In short, funding to support sewer infrastructure must be increased; at the same time, costs for sewer-related infrastructure must be reduced.

Findings

- 1. An additional \$14-26 billion investment is necessary by 2030 to maintain and improve Southeast Michigan's sewer infrastructure.**
 - With 60-70 percent of the existing sewage collection system built before 1970, most costs are associated with maintaining and rehabilitating the existing system and remediating overflow/capacity problems.
 - More than 5,000 miles of new sewers are needed to provide service to the region's growing population and economy.
 - After accounting for inflation, interest, and borrowing on capital improvements, "out-of-pocket" costs range from \$29-52 billion.
- 2. Several factors will likely result in the need for an even greater investment.**
 - New laws and regulations are likely to increase costs.
 - Regulatory agency(s) and judicial interpretations of existing laws and regulations could also increase costs (e.g., recent court rulings on municipal liability for sewer backups are resulting in a whole new set of expectations for capacity of sewer systems).

Estimated 30-Year Cost for Sewer Infrastructure, Southeast Michigan



3. **There are opportunities for reducing sewer-related infrastructure costs. More are needed.**
 - Watershed management, pollution prevention, regulatory flexibility, collaboration by infrastructure providers to maximize use of existing sewer infrastructure, and creating rate structures with incentives for efficiencies all represent targets of opportunity for reducing costs.
 - Innovative designs for development can reduce demand for building sewer infrastructure as well as operating and maintaining that new infrastructure.
 - Minimizing costs for sewer infrastructure needs to be a shared policy objective of all levels of government.

4. **The price of sewer-related improvements is only part of the cost of protecting water quality.**
 - Sewer improvement projects alone will not be sufficient to restore water quality to acceptable levels. Investments in reducing several other sources of water pollution are also needed.

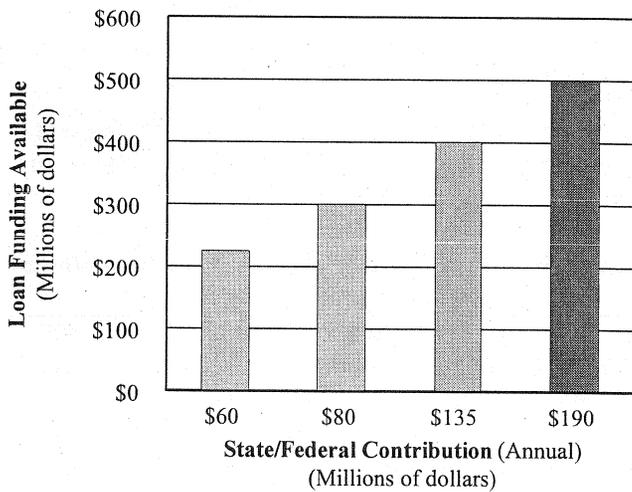
5. **Although several methods are available for raising revenue and distributing costs for sewer infrastructure, the region's citizens will ultimately pay for all the investments.**
 - Sewer infrastructure needs differ widely from area-to-area. Thus, both total need and the nature of the need varies significantly across the region.
 - Local governments' ability to raise revenue for sewer infrastructure is limited.

6. **Federal government support for sewer-related improvements has been reduced to a relative trickle. The state's contribution has always been limited.**
 - In 1974, the federal and state government contributed \$255 million to sewer infrastructure. In 2000, they contributed \$68 million.

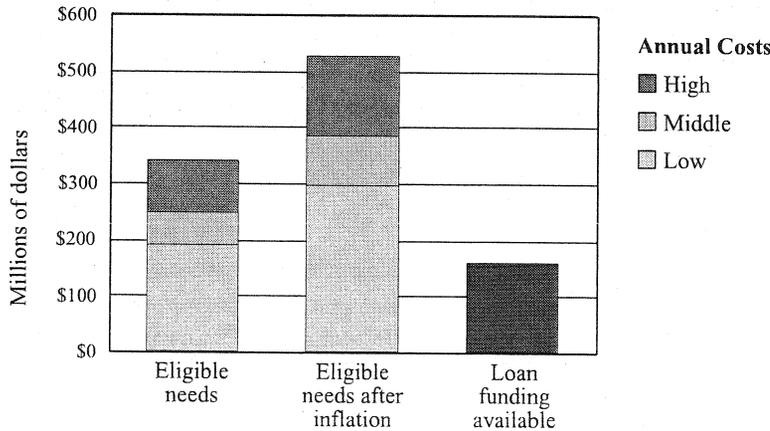
- From 1973-2001, the state contributed \$300 million, while the federal government contributed \$3.4 billion.
- There is no long-term commitment for continued federal funding. In fact, budget proposals often target reductions in sewer infrastructure funding.

- 7. Revenues fall far short of meeting needs. Increased investment is needed at all levels of government.**
- Even for the lowest cost estimates, needs in Southeast Michigan alone exceed loan funding available for the entire state.
 - The level of spending for operation and maintenance will need to more than double over the next 30 years just to maintain sewers at current levels of service.
 - Local government revenues will have to increase to narrow the gap between needs and funding.
 - Through leveraging, a federal/state commitment to contribute \$135 million per year to a low-interest loan program would result in the availability of \$400 million per year in low-interest loans to support sewer infrastructure needs — more than doubling the current rate of investment in Michigan.

Effect of Differing State/Federal Funding Levels on Loans Available to Support Sewer Needs (Annual)



Annualized Regional Costs vs. Estimated Loan Funding



8. **The combined costs for sewer, transportation, and other forms of public infrastructure will likely be beyond the fiscal capacity of many local units of government.**
 - In addition to these sewer infrastructure estimates, other regional infrastructure needs also must be met (e.g., brownfield restoration, drinking water, schools, public safety). There are \$17 billion in unmet needs associated with transportation infrastructure alone.
 - Decision making on sewer-related infrastructure investment will be affected by these other needs.

Managing the Challenge: A Blueprint for Action

Given competing needs for public resources, it is unlikely that the gap between available funding for sewer needs and actual needs can be eliminated — at least in the foreseeable future. However, neither current levels of funding nor anticipated costs should be viewed as fixed. Because of the substantial gap between available funding and sewer needs, we can and must find ways to simultaneously increase funding and reduce costs.

A number of steps for meeting this dual challenge are already identified, but others need to be identified and implemented. The following action steps should be considered by decision makers at all levels of government.

Action Step One: Reduce Costs

1. **Establish collaborative infrastructure planning.**
 - Wastewater service providers should work together in identifying opportunities for reducing cost.
 - The Detroit Water and Sewerage Department's 50-year master planning process provides an ideal opportunity for the beginning of this service-provider collaboration.
2. **Require that newly proposed regulations and laws affecting sewer infrastructure be subject to special review before adoption.**
 - Changes in laws and regulations could have a dramatic impact on the cost estimates in this report. If these laws and regulations are necessary to achieve desired environmental results, then they must have an identified funding mechanism to pay for implementation.
3. **Establish rate structures with incentives for sustainable growth and pollution prevention practices.**
 - Service providers should offer lower rates to communities engaging in pollution prevention activities that result in less demand and more efficient service.
4. **Place emphasis on watershed management.**
 - Fiscal resources for sewer projects should be allocated and prioritized based on how they will improve water quality as compared to other sources of pollution in the watershed.
5. **Implement pollution prevention.**
 - Communities should review their master plans and zoning ordinances to identify ways to reduce sewer infrastructure needs. This includes assessing planning and design before development occurs and utilizing existing infrastructure wherever possible.
6. **Engage the region's citizens to become active participants in solving the problem.**
 - Citizens can help reduce demand for and impacts of sewer infrastructure through such measures as conservation, use of native species, habitat enhancement, and water-quality friendly fertilizer.
 - The private sector should actively engage in advocating public education efforts.

7. **Where possible, extend schedules for implementing remediation projects to reduce costs and make implementation of desired projects more achievable.**
8. **Continue to support innovative projects that demonstrate ways of reducing costs, while protecting water resources.**

Action Step Two: Increase Funding

1. **Increase federal funding for sewer infrastructure projects.**
 - Sewer infrastructure merits funding levels proportional to that for transportation infrastructure; at the very least, funding should be similar to that which existed in the 1970s and early 1980s.
2. **Use the sewer-related needs identified in this report as a basis for determining an appropriate increase in capitalizing the State Revolving Fund (SRF).**
 - A commitment to allocate \$135 million annually to the SRF program would result in about \$400 million annually in loans to support sewer needs.
3. **Local communities will need to continue funding many of their sewer infrastructure needs.**
4. **Review rates to determine the adequacy of revenue to properly operate and maintain local wastewater treatment systems.**
 - Each community with sewers should periodically reassess levels of funding needed to provide a high level of operation and maintenance.
5. **Implement widespread public education efforts to help rate payers understand the need for additional financial resources and prepare them for expected increases in sewer rates.**
 - Support for increased investment in sewer infrastructure hinges, in large part, on citizen awareness of both costs and benefits to the community.

Action Step Three: Brief Elected Officials and Other Decision Makers on Report Results

The actions described in steps one and two cannot be implemented until and unless key parties understand and support them. There is a need to communicate this report's findings to a broad range of groups, including:

- the Southeast Michigan Consortium for Water Quality;
- environmental committees in the state legislature;
- Southeast Michigan representatives in the state legislature;
- Michigan's congressional delegation;
- SEMCOG member governments;
- the governor's office;
- the media;
- representatives of the private sector; and
- citizens.

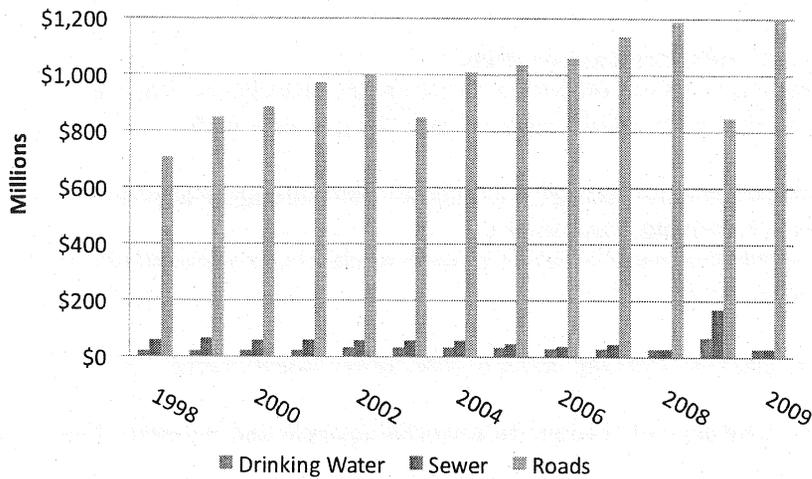
In addition to exchanging information, these briefings should be targeted toward seeking support for implementation of the action steps. SEMCOG commits to organizing briefings for each of these groups.

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



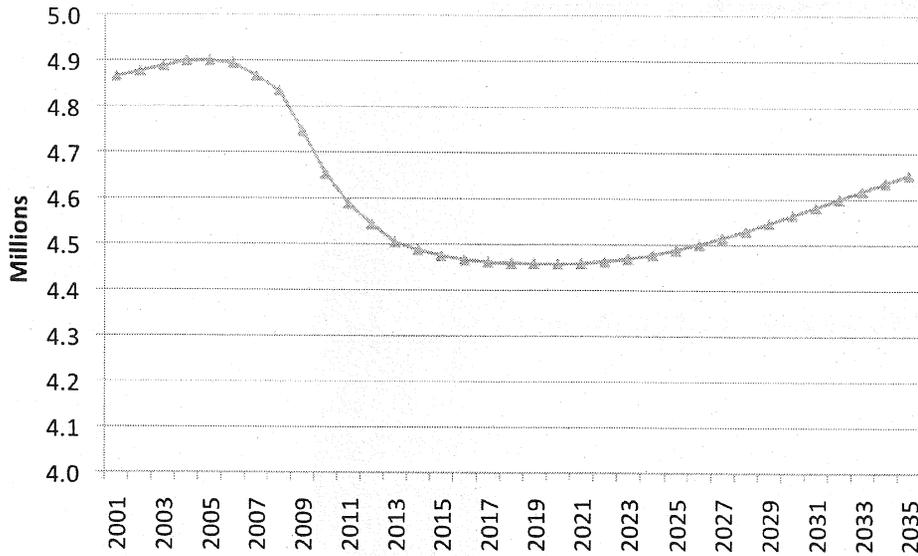
Source: SEMCOG

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 7

We will have 196,000 fewer people in 35 years

Southeast Michigan population, 2001-2035

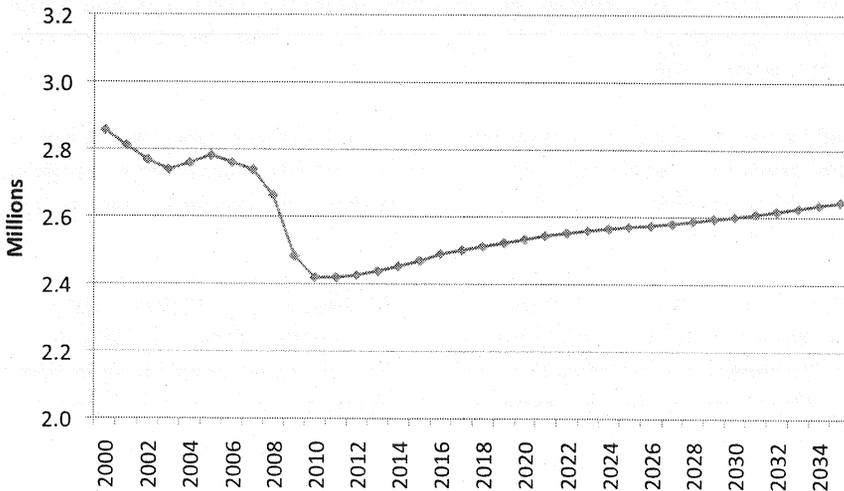


Source: SEMCOG

Figure 8

We will have 213,000 fewer jobs in 35 years

Southeast Michigan employment, 2000-2035



Source: SEMCOG

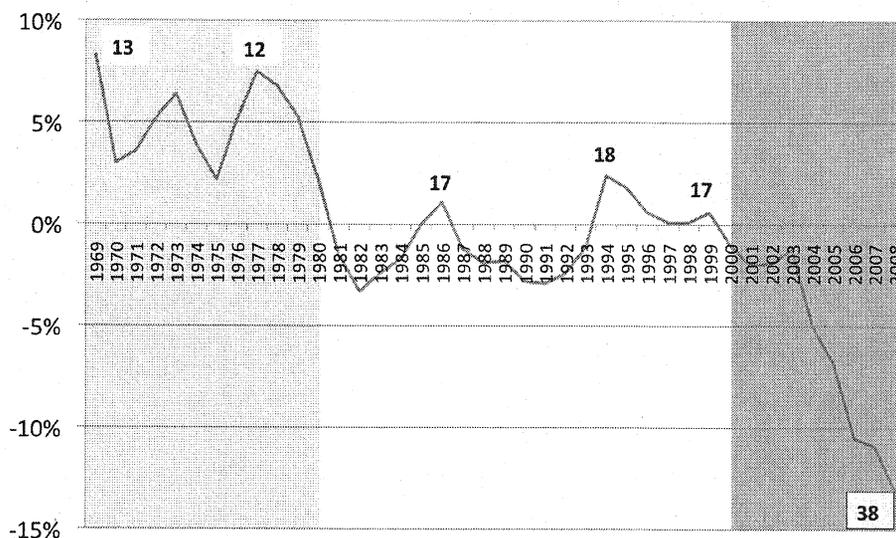
Second, there has been a major shift in the types of jobs available in the region. We have seen a huge decline in the manufacturing sector and these jobs are not expected to return. Instead, we expect future job growth to occur in health care and other service sectors that pay significantly lower wages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

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.

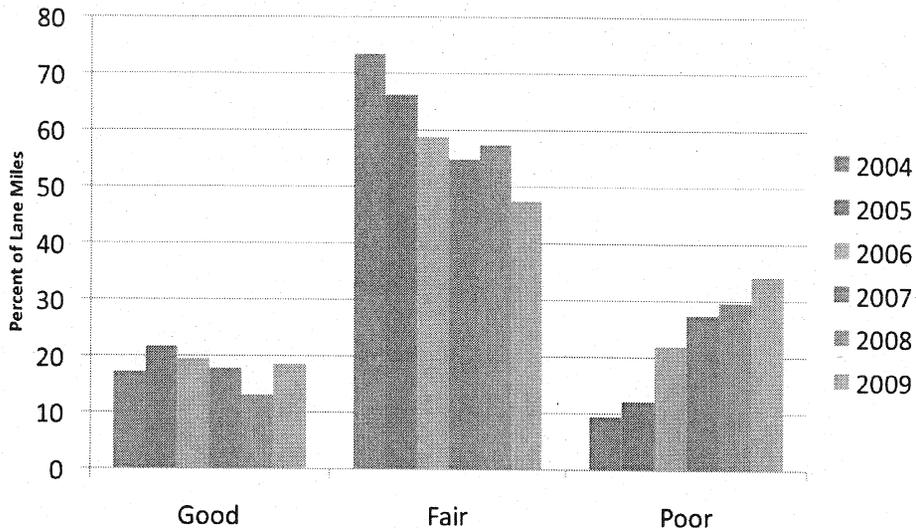
Regional Transformation is Resulting in Misalignment in Infrastructure Supply and Demand

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

Figure 14

We're underinvesting in infrastructure

Changing pavement conditions, 2004-2009, Southeast Michigan

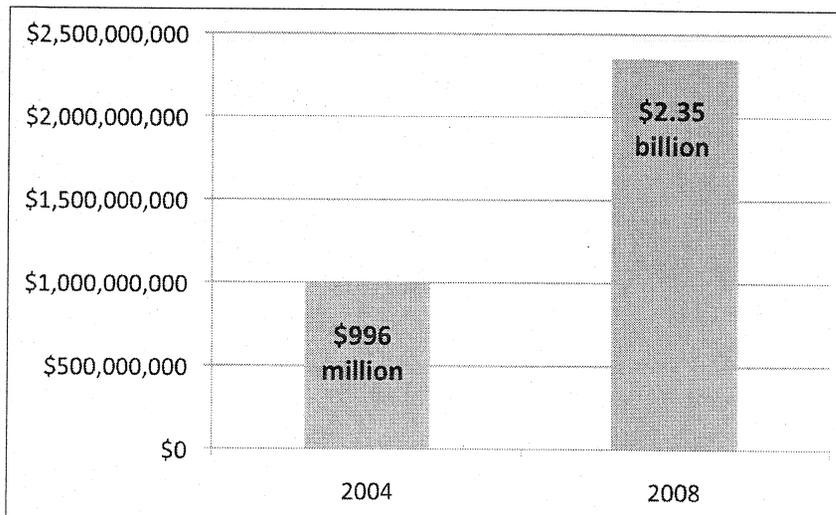


Source: SEMCOG

Figure 15

Underinvestment results in higher costs

Increasing cost of pavement management, Southeast Michigan



Source: SEMCOG

Fiscal Resources Constrained, Not Temporary

Taxable Property Value – Real Dollars (2000)

