Paul Tait Transcript

REX:

Hi I'm Rex LaMore; I'm here with the Michigan State University Center for Community and Economic Development. And we're ready to begin our second session in our webinar series on Re-sizing Communities in a Just and Equitable Manner. Joining us this afternoon are Paul Tait with the Southeast Michigan Council of Governments and Rene Rosenbaum with Michigan State University who will be helping us look at some of the root challenges we face in cities with diminished population density, capital, outflow, and related challenges. I will just make a few introductory remarks about these webinars and then turn it over to Mr. Tait with the Southeast Michigan Council of Governments.

The webinar series is free and available to you. We're hoping this will stimulate discussion across the state of Michigan here today, locally, at times you may choose. We will be archiving these materials and you can access them at our webpage: http://ced.msu.edu. In addition to the webinar we're also pulling together a number of written materials that speak to this topic of re-sizing communities in a just and equitable manner and other materials that might be of interest to you as you think about this and discuss with others ways that we can rebuild our communities in ways that are efficient and effective given the challenges that we're facing.

If you haven't registered and this is really so that we can keep you informed of other opportunities as we move through the seminar series, and other opportunities present themselves, just send us an e-mail to our ced@msu.edu with your name and address so we can keep you informed of events as they occur in this field and in this topic.

As we proceed to the webinar you'll see there will be a chat room on the left side of the screen. We will ask for you to enter questions and comments for our presenters at that time so that we can try to make this as relevant as possible to your interests.

And with that let me introduce our next presenter, Mr. Paul Tiat. I'm particularly please that Paul was able to join us today. Paul is the Executive Director of the Southeast Michigan Council of Governments; he oversees a staff of sixty-five and a budget of 9 million. SEMCOG is the only organization in southeast Michigan that brings together all of the regions governments to solve regional challenges. Mr. Tait also serves in a dual capacity as the President of the Metropolitan Affairs Coalition. The MAC is a unique coalition of business, leader, labor, government and is a catalyst for addressing some of southeast Michigan's most pressing issues, including those affecting the economy. It is the only coalition that brings labor to the table in full partnership with business and government.

Paul joined SEMCOG in 1972 and has served in a variety of planning and administrative capacities. He has a Bachelors of Arts in Psychology and a Masters of Public Health degree from the University of Michigan. He's a certified association executive, awarded by the American Society of Association of Executives. He's a graduate of Leadership of Detroit in the Institute of Organizational Management, a multi-year national program for leadership training. He's also a

graduate of the Harvard University John F. Kennedy School of Government program for senior executives and state and local governments. And I am pleased to have Paul begin our seminar and Paul I will turn it over to you.

PAUL:

Well thanks, Rex, and thank you for having me as a part of this webinar. We clearly are facing an infrastructure crises across the state and in southeast Michigan. And what I'd like to do over the next few minutes is—if I can get the slide to work—there we go, is to drill down the causes of that crises and where we go from here. When I talk about infrastructure I want to emphasize that we must talk about both public and private infrastructure. Public: the roads, the bridges, public transit, the sewage and the water systems. But equally important to our quality of life and economic prosperity are the private infrastructure: the electric, natural gas, telecommunications, broadband. All of that make up the infrastructure fabric in the region and in the state.

We have to begin with the basics, what are our desired outcomes for infrastructure investment decisions? We want quality infrastructure that is fiscally sustainable and we want quality infrastructure that supports the region's economy. We have five challenges when we look at the infrastructure. We've got aging infrastructure, we've got a location/sizing mismatch that I think Rex alluded to in the title of this webinar, we have insufficient revenues, we have high service expectations, and we have a need for new solutions because the old things aren't working.

First, let's talk about them one at a time, but let's start off with aging infrastructure. Sewers, our sewer system expanded into the newly incorporated areas outside the city in the decade of the 1920s. The Detroit Wastewater Treatment Plant began primary treatment in '39, and most of our sewer infrastructure across the region was built in the 70s and 80s when ¾ of the funding was paid for by the federal government. That's clearly not the case today; all of it's getting old.

Roads, we have the Davidson Freeway which we just rebuilt a couple of years ago, was the nation's first urban freeway. Much of the interstate was built after President Eisenhower created the Interstate Highway System. And for example the Lodge Freeway we rebuilt it in 1986 and we did it again just recently. Again, all of it's getting old and we've got to do something about it. The consequences of that aging infrastructure are high operating cost, high maintenance cost, and high reconstruction cost.

A second challenge area for our infrastructure is that the historical investment no longer aligns with where the people live and where the jobs are located. This map depicts urbanization of our region from 1890 and projected out through 1930. We've spread out with relatively small incremental increases in population and the result is that much of the infrastructure is in the wrong place. More recently we look at the census data for the past decade, Detroit losing 24% of its population. In 1950 Detroit was nearly 2 million people, now we're looking 717,000 people. The infrastructure in the city was built for that 2 million people and now is grossly oversized. In

total the regional population in the last decade went down 3% and again we haven't done anything to right size the infrastructure.

Jobs as a; oh population. We forecast a continuing decline in population through 2020 and then very slow growth. In fact by 2035 we're looking at 200,000 fewer people in this region than we had in year 2000. Similarly if you look at jobs and jobs as a surrogate for business activity, that will bottom out over the next couple of years, and again as with population, we'll have about 200,000 fewer jobs in 2035 than we had in 2000. This is reflected in the business sector use of our infrastructure, and I'll get into that as we get into the revenue generation.

Thus far I've discussed an old infrastructure and changing population and jobs making it too big and in the wrong place. Our funding structure to pay for it is broken as well. The revenue, the rate/revenue base is declining and I'll get into that in moments. Stepping back for just a second before I look at our local funding, federal support for most infrastructure is minimal. We get a fair amount for roads and a little bit for transit but when you look at the federal investment for sewer and drinking water, it's marginal at best. And there when we do get money from the feds for sewer and water, it's usually in the form of loans not in the form of grants.

When you look at funding for infrastructure that is based on usage, we got some real problems. Water sales: Detroit water and sewer sales are going down. With fewer people and a challenged economy, we're not consuming as much and that has implications. We estimate that at the same time the sewer and water construction needs are high, this is just looking just at the sewer infrastructure needs we've got about 26 billion dollars in needs in 2001 dollars. When you look at that with inflation, principal and interest, that's over 55 *billion* dollars just for the sewer system alone, the numbers for water are comparable. The challenge here is that with this lower consumption, unit costs increase. This is 2003/2004 data and unit costs, and with the current usage we've got probably about a third to 40% more cost per unit.

Turning to roads it's a parallel story. Gas consumption is down with increased fuel economy, alternative fuels and a sluggish economy. At the 18.3 cents federal gas tax we pay and the 19 cents a gallon—the operative word is *per* gallon—it's not index to inflation, we have less money for roads and transit in our state and in southeast Michigan. Further exacerbating this is the new fuel economy standards that were just imposed by the federal government that will be fully phased in by 2016. That's good for fuel consumption, good for reducing our reliance on oil, bad for the revenue shortfalls that we have for our roads and transit.

We estimated that our total transportation needs are about $2.8 billion a year; this is just for southeast Michigan. We raise about $1.3 billion in revenue, so we've got a revenue shortfall of over half the need. We're going to get further and further behind as the next slide shows. Pavement conditions are getting worse, bridges are staying about the same, but overall we've got an increase in the roads that are poor and a decline in fair that is heading to poor and it's costing us. Our pavement management funding needs—this is not for capacity improvements—just merely maintaining and rebuilding the pavement in our region, in 2004 that was $996 million, by 2008 that's already up to $2.35 billion, we're falling further and further behind.

On the private infrastructure side we're consuming less natural gas and we're consuming less electricity. Our revenue formulas and policies are, frankly, outdated. The current formulas and policies depend on increased consumption: gallons of gasoline sold, gallons of water used, megawatts of electricity used. That formula conflicts with our green policy of reducing consumption. Frankly we're on a collision course. The revenues require consumption at the same time our policies and good ethic require conservation. Again, we're literally on a collision course when it comes to financing our infrastructure. At the same time our household ability to pay is declining. Income is down 16.1% in eight years, total housing costs are up and spending on utilities is up 21.2%. At the same time taxable property values are declining so the ability of a household to pay more for infrastructure is severely limited and the bottom line is where do we go from here?

Before we talk about solutions, we have one more challenge: the high expectations we as consumers have toward our infrastructure. We've got climate and energy legislation, good things but that leads to regulatory uncertainty. We have air and water quality standards that are—particularly air quality standards—that are changing frequently, almost to; in fact the biggest concern is that it's changing faster than even we can understand whether the previous things that we've done to meet the standards are doing any good. We've got a transportation funding bill, a six year bill that's now two years past its expiration date. And unfunded mandates are increasing. This all contributes to higher costs for our infrastructure and more uncertainty about our ability to pay.

High costs also result from, as consumers, our high expectations. Our expectations in water, we want water pressure under any circumstances, even in the middle of the summer we want to have enough water pressure to water our lawns and to wash our cars. The result is pumping and transport system built to support peak demand, very high cost, perhaps something we can no longer afford in the future. We want minimal to no traffic congestions so we want to build roads to meet our rush hour needs in the absolute worst conditions. We want clean lakes and rivers, that's a good thing, but the increasingly stringent standards that result from that are costly. And we want power on demand, in the middle of the summer I want to be able to power my air conditioner. That may be a thing of thing of the past; this model is frankly unsustainable, leading to higher costs.

So we do need new solutions, let's look at some of the possible solutions. The components of the solution, it's a complex problem, there's complex solutions. So there are six areas in which we have to come up with solutions to affect our overall infrastructure problem. First and foremost we've got to restructure our revenue collection systems. We've got to get into the true cost of our infrastructure that is the operation, the maintenance and the reconstruction. All too often there's the desire to have the free set at just the operation costs and maybe a little bit of the longer term maintenance. In reality we've got to look at that, particularly with the age of our infrastructure, we've got to look at revenues that are based, that generate enough revenue that we can start putting the money aside for the ultimate rebuilding of our system.

Second area, we need to take a more holistic view of the needs and outcomes of our infrastructure systems. We've got to be able to look at potential efficiencies; we've got to understand the relationship between the water and sewer infrastructure, the road infrastructure, and the private sector infrastructure. And we need to look at truly, what are the outcomes? I mentioned the two outcomes that we have at the beginning of my presentation for reliable quality infrastructure *and* for infrastructure that supports our economy. We've been looking at these things in silos too long, we can't do that anymore. We've got to get collaboration amongst our providers. When a community goes in and looks at replacing or refurbishing the sewer and water pipes in the ground they should be coordinating with the road system decisions and they should be coordinating with the private sector infrastructure decisions. Already we've seen just from raising this discussion TTE among others is entering into agreements where we can help them understand where the road improvements are going to be that will help guide some of their electric and gas utility decisions.

Obviously we've got to reduce cost. We have to look at changing the public expectations. I mentioned our expectations of having all of my infrastructure needs met in the most peak times, that is not a sustainable model. So we've got to lower our expectations, maybe I can't use my air conditioner in 90 degree weather in the middle of the day, but I can turn it on before I go to bed at night. We've got to look at alternative approaches for meeting regulations, and I've got a real good example of this that I'll share with you in just a second. We've got to really begin to examine the costs of alternatives including alternatives for possibly downsizing or even turning off our infrastructure in certain parts of our region.

The example, the success that we had recently related to a combined sewer overflow tunnel on the Rouge River. Detroit was actually already under contract to build a CSO tunnel that had been a part of a negotiation with the state DNR. And we said at the last minute, probably a little later than would have been appropriate, we said, "Wait a minute, we've got lower population being served by our sewer system, we've got a lot of land in which we can incorporate green infrastructure, and we can save a lot of costs by just extending the schedule. And the bottom line is we can meet our environmental regulation and safety goals at a significantly reduced cost". And we were able to do that. The column on the right is the, what we saved with the new proposal. The original proposal we would have had one overflow a year, we get a couple more overflows a year but as you can see at a fraction of the cost. There's about a 40% reduction in the annual cost and a huge reduction over the average annual cost as you stretch that out over the bonding period for the improvements.

So with very little reduction in the environmental improvement, from the original proposal to this new proposal, using green infrastructure, recognizing reduced population in the city and in the overall DWSD service area we saved a lot of money and still maintained the environmental quality. That's got to be a model for the future, this one was more dramatic because of the $1.3 million capital cost versus $814 million and I think as we finish it will be even less.

Finally, and this gets to the issue of the series here, we've got to focus our infrastructure capacity, focus services where infrastructure capacity exists. We're beyond the point where we can afford to, without thought to the cost, expand the infrastructure, and in fact there may be places within the city and within some of our older areas where we can say, "Gee this no longer makes sense to be providing infrastructure there" and cut back and actually possibly even shut down services in some areas. Looking at the savings from the sewer and water, the roads, as well as the private sector infrastructure that has a lot of potential, obviously fraught with political and neighborhood opposition but it's given the state of our infrastructure and infrastructure financing, it's a direction in which we have to head. The other part of that is that we have to do a better job of connecting our economic development plans and the service provider plans. Where do we have excess capacity in both, again, both private sector and public sector infrastructure? That's where we should be directing our economic activity that we can service new business at the marginal cost, not the cost of new construction.

That is the infrastructure crisis in southeast Michigan; I think the issues are certainly state-wide. We've got a real crisis on our hands. I think just now we're waking up to the fact that it's not business as usual; we've got to do things differently. Rex, I turn it back to you and open it up to any questions anybody may have.

REX:

Thank you Paul I appreciate that and thank you for your work in this regard. I'll start with a question while people formulate theirs in the chat box. You mentioned at the end of your presentation the challenges of resizing where we might limit infrastructure access, structure investment. Clearly one of the issues there is what criteria would we use to select those communities where we might implement that strategy? I am wondering have you given any thought, or have your colleagues, about what are the criteria that might guide us in identifying those places where we may curtail access to infrastructure?

PAUL:

That's a good question, Rex. There are a number of studies that in fact we've done. We've mapped the land use by parcel in the region and particularly in not just Detroit, but Detroit and our other older communities, there are clearly areas where relatively few parcels in a subset of the geography are in very active use. So it may be a situation where in addition to the criteria, what kind of compensation are we going to enter into to have that one or two homes in a neighborhood may still be immaculately kept up? And I feel for the folks who have been in their home for 20, 30, 40, 50 years and have kept it up immaculately while the neighborhood around them has deteriorated. So I think in addition to the criteria—and some of the data really points out areas where we could make some very dramatic changes to how we provide the infrastructure. A big part of the equation is how do you compensate those who, again, may have

been in their homes for decades and have maintained their homes? It's going to be more than just criteria; it's going to be how do we compensate those?

REX:

Let me just ask a follow up, Paul. Some of what I've heard—and I'm still learning, I think, I know I'm still learning on this topic—the engineers say we're developed in such a way that the grid only functions in certain parameters; there are some parts that you have to keep open to allow other parts to function. Have we done the engineering so we know where the dead ends may lie so we can say, "Hey this is easier to shut off than other parts"?

PAUL:

Yeah that's an excellent question and we really haven't gotten that far yet. But in conversations we've had with DTE and others, they're fairly comfortable that they're that there are places that could be effectively shut down. But you're absolutely right Rex; it's going to require a lot more engineering than is within my capability, certainly.

REX:

There's some comments in the chat room Paul, let me draw your attention to those.

PAUL:

Okay, we've got a question about the city of Portland. Um [someone talks in background, inaudible].

REX:

Start at the bottom and come up.

PAUL:

Start at the bottom and come up? Okay, uhhh…ridding the environment of the impact of industrial production on animal life. Uh we have been looking at the; in fact with some of the work we'll be doing under the sustainability grant we just got from the Department of Housing and Urban Development, we'll be looking at some habitat related questions. Um I don't think we necessarily; the standards; we've got a relative risk question relative to environmental standards. It's clear to me that we can't, at least in my lifetime, afford the absolute penultimate environmental protection, we just don't have the resources to do that. And if we force our communities to go to more and more stringent standards, they're going to hit bankruptcy and then we make no improvements.

So I think the issue is going to be a relative risk, as we did with the CSO tunnel in Detroit with a very minimal relax—not even relaxing of the standards but acceptance for 2.2 more overflows a year, we can do a lot more with a third to 40% reduction of the costs. So I think that's, that's where the discussion is going to be because if we force our businesses and

communities to relate to the more stringent standards, we're going to get paralyzed and our environment isn't going to get improved.

REX:

I believe there's question above it and then one that just came in below it.

PAUL:

Okay I think we talked about, oh the "economic development opportunities may exist in less dense areas by creating smaller neighborhood owned utilities". I think the, yes we've been over time we've focused on the bigger systems to serve higher density populations. I have a concern when we talk about more pocket oriented infrastructure. A big question is who provides the service, or who has the responsibility if those systems fail? And right now I think it's, if there's a pocket development in a township where the, where a subdivision or smaller neighborhood might have been serviced it becomes the responsibility of the township if that system fails, particularly in sewer systems. Unless you have some very strict and enforceable bonding that covers the cost of a failure I find those very troubling. It's easier to go after a larger broader based system if there are problems. I think it's particularly on the environmental side.

REX:

There's one up a little bit Paul, regarding concurrency, there's a comment on concurrency above.

PAUL:

Okay let me get down to that one. Is this the Portland question that you're looking at Rex?

REX:

It starts with Jane Fitzpatrick #3 with a comment.

PAUL:

Okay, if you can see it why don't you read it to me and I'll respond, I'm having trouble finding it.

REX:

Sorry, "Is there any consideration—?" Oh sorry, that's not it. I can see why you're having trouble.

PAUL:

It's not just operator error on my end.

REX:

"Infrastructure quality and capacity issues are addressed through such systems as concurrency management systems (Florida) and urban growth boundaries as the city of Portland created in the 1980s to, in addition to preserving natural resources, made sure that development and the revenue base developed in the area where infrastructure already was available and could handle additional capacity". So it's really a statement of concurrency on infrastructure development.

PAUL:

Right, I'm all in favor of concurrency. I think realistically the issues of urban sprawl and addressing the needs imposed by urban sprawl I think are going to be a relevant issue in this region for at least the next decade and maybe beyond. We've got a lot of housing stock that we need to consume because of foreclosures and the economy. We see the economy growing, but growing very slowly so I think the utility of that in the foreseeable future is going to be far less important than it might have been in decades past. That's not to say that if we start growing again we shouldn't be looking at that, I think it's more the pressure is going to be on for how do we create more infill on the one hand and how do we use vacant land on the other hand in ways that as we talked about earlier that we can reduce the use of infrastructure by greening parts of our urban areas that may no longer be in high density production.

REX:

Well I'd like to thank you Paul, for joining us, I really appreciate your leadership and work in this regard. And thank you again for helping us today.

PAUL:

You're more than welcome, I enjoyed being with you. Good luck in the rest of the series, it really looks like a very good program that you developed. Thank you all.

REX:

Thank you.