

## **Nevada County Transportation Commission meeting – October 7, 2020**

### Accept SB 743 Vehicle Miles Traveled Implementation Project as Complete Presentation by Rod Brown with Fehr & Peers.

Rod Brown:

Thanks again for the opportunity to present today. I'm Rod Brown. I am a transportation planner with Fehr & Peers, and also a resident of Nevada City. And I just want to preface my presentation with the admission that this is a highly technical topic, and I'm going to do my best to convey the essential points in our short time here, but feel free to ask questions as they may come up.

I know some of you have heard about this as presentations have been made along throughout the process, but I am going to go back to the beginning here for those who haven't been involved all the way through, and also to refresh everybody about why we're doing this project. Senate Bill 743 requires the state to change how our transportation impacts on the environment are evaluated under the California Environmental Quality Act, or CEQA. It was signed into law by Governor Brown in 2013. And as of July 1st of this year, CEQA transportation analysis for land use projects and land use plans must be based on Vehicle Miles Traveled, which we'll refer to as VMT throughout this.

Lead agencies, such as the cities and the County also have the discretion to choose their impact metric for transportation projects, and I'll touch on that as well. But VMT is encouraged by the Governor's Office of Planning and Research and by Caltrans for use there too. The intent of SB 743 was to more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health, reactor transportation, and reduction of greenhouse gas emissions.

The legislative intent is important because subsequent actions, developing guidance, or applying SB 743 to projects will likely be measured against this language. Especially as legal challenges come up as they inevitably will. So, as we get into this, it's important to distinguish what SB 743 does and what it doesn't do. What it does is it illuminates Level of Service, or delay from SQL analysis, and it adds VMT into that analysis.

And, it provides some background information and guidance on how to implement those things. And, accordingly changes mitigation as well when impacts come up. What it doesn't do is also important. It doesn't have any effect on agenda plans, fee programs, or things related to the state constitution, or the Subdivision Map Act, other things like that. So, the bottom line here is that you can continue to use Level of Service, but not for SQL analysis purposes.

To refresh everyone, Level of Service is a measure of delay, which is essentially the impact of a project on vehicles at intersections on roadway segments. It's typically reported as a letter grade where LOS-A is free-flowing traffic while LOS-F represents congested conditions. In member jurisdictions, such as the cities and the county for NCTC, it's typical to use Level of Service standards and such measures when analyzing projects and it's often in general plans as well.

Traditionally, using LOS, what you're seeing is the impacts of a project on driving. But now what we're doing with the new SB 743 and VMT is changing to impacts of driving, looking at the VMT generated through the entire day. So essentially what that means is the definitions of good and bad are changing. So things like you see here, which is an empty road, that would be considered good Level of Service in that would be considered low impact. However, if you were to look at a road like this, downtown in any of our cities, this would be considered bad because there is congested conditions, even though that might be good for other reasons, and accommodate people such as pedestrians and such. When we're

trying to mitigate Level of Service, congested conditions as well, there's often cost to maintaining that or improving that that can be roadway, upgrades, maintenance, as well as impacts on bicyclists and pedestrians.

Now, let's talk a bit about VMT or Vehicle Miles Traveled. I'm going to use an example here to explain that. So if you were to consider a typical day in the morning, you might leave your house, go get some coffee, drive from the coffee place to work, then at the end of the day, come back home. You might go out again to do some shopping, drive again to the gas station to refill your gas tank, and then head home at the end of the day. If you added up all of that travel in this case, what you would see is 29 miles, that is your Vehicle Miles Traveled for you during that day. If you're a one person household that would be the Vehicle Miles Traveled for that household, if there were more people than you would add up all of that to get the total for the household. In reality, we don't measure a VMT down to this level of detail, but we do have Travel Demand Models that exist, such as the Western Nevada County model and a Truckee model that help us in estimating VMT.

Another important concept with VMT is the difference between project generated VMT and a project effect on VMT. Even though a project, a new project may create VMT, it may reduce the VMT overall for our agent. And here's an example. So what you're seeing here is essentially a city with three different neighborhoods in the three different colors. And the brown store, it could be that you see there is shown on the bottom left and all those arcs that you see represent trips to and from that store. If we focus in on this blue neighborhood for a minute, all those people are currently traveling out of that neighborhood over to a different neighborhood to do their shopping. If we zoom in there for a second and consider what would happen, if a new store and say it was a new grocery store were built, the people would have less distance to travel. So even though this is a new project, that's creating VMT because the trips that they're making are shorter, the overall VMT for the region is reduced.

So with that as some background, let's talk a bit about what we did for this project in particular. We did have a technical advisory committee, which consisted of representatives from all the cities, as well as the county who met with us throughout the project and advised us. We reviewed the Western Nevada County Travel Demand Model for use in VMT estimation. And we made some improvements to that model. We created recommendations for methods and thresholds for assessing VMT. And for simpler projects, we also developed a screening tool, which we'll talk about here to assess VMT. We identified mitigation measures for use if a project were to exceed thresholds. And we also recommended changes to Grass Valley in Nevada County's Analysis Guidelines, Transportation Analysis Guidelines that they have. And we delivered a final report in all this, which is available to you all.

So let's talk about these recommendations specifically. The first thing is the metric, which is used to measure VMT. And what we recommended is an efficiency metric. You can think of an efficiency metric as a generation rate, similar to a trip, it's the amount of VMT generated per person in particular, or for other measure. In this, by using a generation rate, as opposed to just the total VMT, that allows us to compare dissimilar projects, relatively compare them on an equal basis. There are two, actually three specific measures that we used here. One that we used and recommended is the total weekday VMT per service population. This is the VMT associated with the primary creators of travel within the region that would be residents, workers, and students. Includes all vehicles, such as cars and trucks and all trip types, where trip types are journeys to work, journeys to go shopping, journeys back and forth to school and things like that.

Using this metric, it's consistent with other sections of SQL analysis that use VMT as well, such as pollutant emissions estimates. For screening purposes, which we'll get into, we also recommended two other measures. One of those is the home-based VMT per resident. This is the amount of travel associated with a home and people traveling for all their shifts during the day to and from the home,

recommending that for residential projects. And we also recommend home-based work VMT per employee for non-residential projects. This is the travel to and from work associated with each work site.

Those are the metrics, but associated with each of those metrics are also thresholds. And what we've developed here or recommended here are a percentage less than the sub area mean under baseline conditions. Let me break this down a little bit. By sub area, what we're referring to are different areas of the county. And what we did was we divided the county up into areas with similar travel district characteristics. And what those are is each of the cities, each of the incorporated areas in the county is its own sub area. And the denser unincorporated areas such as Lake of the Pines, Alta Sierra, Lake Wildwood, and Penn Valley. Those are also sub areas. And then the rest of the unincorporated areas of the Western and separately, the Eastern County are also separate sub areas. By doing this, we're looking at areas with similar travel characteristics as well. By baseline conditions, what we're referring to is the amount of VMT that is typical, or is the average or the mean for each of those sub areas when the project is proposed.

By doing this, by looking at sub areas separately, we're recognizing that VMT generation and the priorities for each community can vary and therefore different thresholds can be set by each of those jurisdictions. When the jurisdictions do set their thresholds, it is important though, to consider that the state considers VMT to be more like air pollution than Level of Service. And they have some basic expectations in terms of the amount of reduction that is necessary. And we'll get into those here next.

The California Air Resources Board has estimated that a certain amount of VMT reduction is needed to meet statewide goals for greenhouse gas emissions. And what the graph here is showing is that they have estimated that a 14.3% reduction from average emissions in the 2015 to 2018 time period is required to meet those goals. However, there's some assumptions behind this as well. And this may change in the future. For example, the Department of Finance is projecting that the state will grow by a smaller amount than was previously projected back when this estimate was made, so this number may change as well. And also there are things like COVID, which the impacts are yet to be seen too.

East jurisdiction has the opportunity to set its own threshold. And what we've done is recommend a range of thresholds here. This range is essentially saying that we don't want future development to be any worse than current development, so that would be saying new development should be equal to the baseline. And that can go up to this 14.3% number, which is for all vehicles, which is essentially saying that we want to be consistent with the reduction that ARB has specified as necessary. This is also basically equivalent to the goals that have been, or the targets that have been recommended by the Governor's Office of Planning and Research and some work that they did, they recommended to 15% threshold reduction. Some jurisdictions have already adopted things. Nevada County has selected the 14.3% reduction and Truckee had selected a 15% reduction there.

For simpler projects, the analysis does not necessarily have to be a full-blown VMT analysis using the Travel Demand Model, as would typically be done for larger projects. The Governor's Office of Planning and Research has identified some things that can be done for smaller projects to screen them out based on evidence that the VMT is going to be lesser in these cases. One of these is a local serving retail projects. Typically, these are less than 50,000 square feet for retail. This could also be medical offices and other such local uses.

If you think back to that example I presented earlier of the store and a new store being built in the neighborhood, typically people are going to go to the closest stores. You're not going to be drawing new people into reason to shop at a place for these smaller stores and such. Other screening that's available is for projects in areas where VMT per service population is already low and where similar land use exists today. Essentially, what this means is if there is a house in a neighborhood, and we

know that that is a low VMT area, we'd expect that a new house built in that same neighborhood would have similar VMT performance. And therefore you can presume that that VMT impact will be low as well. There's also essentially a minimum amount of VMT, which is considered not to be less than significant. In this case, it's 630 VMT per day for a project.

To use the screening, what we've done is developed a screening tool. This is an online map-based tool that's available, that incorporates data from the Western Nevada County Travel Demand Model. It allows you to select a parcel and see what the VMT estimation is for that area based on the existing development in that area. So a planner can go in, select a parcel, and if the VMT per service population is already low in that area, or it meets one of the other screening criteria, you can quickly see and determine that this project may be screened and not require further analysis. Alternatively, if he sees that it is an area with a higher VMT per service population, he can go forward and recommend additional analysis for that. One note here, screening is always a trade off. If a project has other characteristics that would make it more likely to have a greater VMT impact due to the unique characteristics of the project, the planner or the jurisdiction can always elect to have a full analysis done on that project.

It's mentioned earlier, one of the other things that we did was look at recommended mitigation, if a project were analyzed and determined that it did not meet the threshold of significance. These mitigations can be characterized in a sort of a pyramid formation that you see here, where things with the most impact on the bottom and things with the smaller amounts of impact around the top. What's interesting here is that the things on the bottom that have the most impact have to do with retail infrastructure, such as roadway networks and transit networks and such. Although these have the most impact, they are also least able to be influenced at an individual project level, so they can be sort of baked in, so to speak by previous decisions. For in digital projects, you can do things that influence building operations, things such as having tenants do more telework or more commuting or carpooling or commuting by transit and such. But those mitigations typically require monitoring to ensure that they stay in place. And as mentioned, they also have lesser impacts than some of those regional strategies.

We developed a list of recommendations in our report of the mitigations that are most likely to be beneficial within Nevada County. However, it's important to note that overall, the mitigations that are available are going to have fewer impacts than they would in a more urban area.

I mentioned before that jurisdictions have flexibility for transportation projects. They can select their own metric and they can use LOS or VMT or something else. In general, what's recommended though, by us and by OPR and others is that VMT be used for transportation projects. This would be road widenings and such things. If VMT is used, it allows for a variety of projects to be assumed to have a less significant impact for transportation purposes. Those are things like transit bicycle and pedestrian projects, and it can also be a smaller roadway modification as well. However, one thing that's important here is that methodologies that are used need to ensure that induced travel is accounted for. The Governor's Office of Planning and Research has some recommendations there as well, but some work can also be done with the Travel Demand Model to estimate those impacts, which may be lesser in rural areas, such as Nevada County

Rather than do an analysis on a project by project basis, another option that is available is to incorporate VMT analysis into a general plan update and the EIR associated with that. Admittedly the jurisdictions within the NCTC region do not frequently update the general plans, some are pretty old. But if they chose to do so, they could do the analysis as part of that general plan update and therefore going forward, projects that were consistent with the general plan could tear off of that analysis and be presumed to have a less than significant impact for VMT and for transportation purposes.

So that is a quick summary of the project that we did as noted before. As of July 1st, SB 743 is in effect and VMT must be used for land use projects and land use plans, in terms of CEQA. We have made presentations to Grass Valley and to Nevada City, and Truckee has also completed their implementation in June of their SB 743 thresholds, and the county has also completed their implementation as well. So, that's where we stand now for this project. I'm happy to take any questions that you might have.

Andy Burton:

I just had one curious question. You mentioned, one of your slides mentioned a methodology for home-based work VMT calculation?

Rod Brown:

Yes.

Andy Burton:

Was that a late addition to the project analysis or was that in there from the beginning?

Rod Brown:

We had a couple things in there. We had a VMT per service population that was done relatively early on in the project. And I'd say, I don't know, about six months ago, nine months ago, we did an addition for screening purposes to have these two other measures put in as well.

Andy Burton:

Okay, thank you.

Ed Scofield:

Commissioner Scofield here. I'm just curious, what is the impact? I'm thinking retail at this point, on an establishment that is a high VMT project, and I'm thinking of like large box stores. What is the penalty that comes from something like that?

Rod Brown:

It wouldn't be.

Ed Scofield:

We're losing much of our larger retail here, what we call larger. And it's mainly because people are driving to Roseville and Sacramento to purchase things down at Costco and places like that.

Rod Brown:

Right. And that's a good example of the case where if retail is put into an area where it doesn't exist, now. If there were even a larger store in that case that allowed people to travel a shorter distance to get to that need that they're trying to fulfill, it could reduce VMT overall for the area. So the screening that's in place is for smaller projects, but it could be that when you did the full analysis of a larger project, it could also show a less than significant impact too. It could reduce VMT.

Ed Scofield:

I doubt it. I mean, those guys are looking for a market. What, 50 to 100 miles. I can see the advantage on a smaller project, such as our Holiday Market recently down on Highway 49, where that might've been impacted the Level of Service, but the VMT would be, I would hope a very good model. I could see some complications though. It sounds like, well, you can choose either method of doing things, but for CEQA, it has to be VMT. And I can see that being an issue again, with the Holiday Market, you'd have to deal with the Level of Service, but at the same time, you have to deal with the VMT, which means you've got to deal with both of them within your CEQA documents. So that could add some complication. I also think it won't be long when the electric car has come in, that we'll be metered for the number of Vehicle Miles Traveled. This would be their method of taxing this. It'll be interesting to see what the impact is. Thanks, Rod.

Rod Brown:

For sure.