Draft

Initiative 10: Amplified Employer-based Travel Demand Management

INITIATIVE COMPONENTS APPROVED BY TASK FORCE AND ACCEPTED BY TPB

New policies (e.g., employer trip reduction requirements) and programs (e.g., financial incentives) implemented at the local and regional scale to significantly reduce single-occupancy vehicle commute trip making, including:

- Employer-based parking cash-out
- Expanded employer-based transit/vanpool benefits
- Expanded telework and flexible schedule adoption
- Substantial increase in priced commuter parking in major Activity Centers

ASSUMPTIONS

Roadway Assumptions

No changes from 2040 CLRP.

Transit Assumptions

No changes from 2040 CLRP.

Bicycle and Pedestrian Assumptions

No changes from 2040 CLRP.

Pricing Assumptions

- **Transit/Vanpool Subsidy**: Transit subsidies averaging $50 per month for 80% of employees[24]
- **Parking Pricing Increase**: Charge for 90% of parking for work-trips in Activity Centers[25] with average parking costs of $6 per day (higher in the core and lower in areas not currently charging for parking). These parking prices could reflect actual parking costs or employer-provided parking cash out, in which employers pay employees who do not drive to work

These changes in pricing result in shifts of trips from SOV to HOV and transit with proportion shifted varying by land-use context and proximity to the core.

Land-Use Assumptions

2040 CLRP Round 9.0 Cooperative Land-Use Forecasts were used without any change.

Other Assumptions

Increase in telework. Regional reduction in the number of commute trips for all modes to achieve a 20% telecommute rate.[26] Given that about half of workers in the Washington region may be classified as "office" workers, this equates to about a 40% share telecommute for jobs that may be conducive to telework, or an average of about 2 days of telework per week.

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[24] 2016 MWCOG State of the Commute Survey Report showed the following percentage of employers currently being offered a transit/vanpool subsidy: Inner core – 57%, Middle ring – 25%, Outer ring – 10%. https://www.mwcog.org/documents/2016/06/21/state-of-the-commute-survey-report--carsharing-state-of-the-commute-travel-surveys/

[25] 2016 MWCOG State of the Commute Survey Report showed the following percentage of employees not offered on-site free parking (assume employee-paid parking): Inner core: 69%; Middle ring – 17%; Outer ring – 10%.

[26] 2016 MWCOG State of the Commute Survey Report showed 10.2% telework. Note that the COG model used for analysis is calibrated based on the 2007/08 period, which reflects a 5.7% telework share. Consequently, this analysis assumed an increase in telework share from about 6% to 20%, rather than 10% to 20%, and therefore accounts for some of the telework that is already occurring but not accounted for in the 2040 CLRP.

FINDINGS

Table 25: Initiative 10's Performance on Challenges[27]

Challenges	Compared to CLRP
Road Congestion	High
Transit Crowding	Medium
Inadequate Bus Service	Neutral
Access to Bike/Ped Options	Neutral
Development around Metrorail	Neutral
Housing & Job Location	Neutral
Metrorail Repair Needs	Neutral
Roadway Repair Needs	Neutral
Incidents and Safety	High
Pedestrian & Bicyclist Safety	Low
Environmental Quality	High
Open Space Development	Neutral
Bottlenecks	High
Reliable Access to Intercity Hubs	Low

KEY: High, Medium, Low, Neutral, Negative

Amplified travel demand management performed very well on many of the MOEs due to its significant reduction in the number of commuters traveling to work each day due to telework and financial incentives that encourage use of transit and HOV modes. This page discusses performance on the challenges, and the next page shows the quantitative MOE results.

Challenges Addressed by Initiative 10

- **Road Congestion** and **Bottlenecks** improve the most out of all initiatives with a dramatic 24% reduction in VHD, or about 440,000 hours of delay saved daily. This significant improvement results from about a 6% reduction in overall VMT, reflecting over a 20% reduction in SOV work trips, which are focused during the peak commuting times. Due to significant assumptions about the increase in telework, both SOV and transit work trips are reduced (with transit work trips reduced by about 9%). The significant reduction in commute trips across all modes alleviates both highway and transit bottlenecks.
- **Incidents and Safety** and **Environmental Quality** also improve significantly due to the significant reductions in VMT, with an estimated 8+ million vehicle miles traveled reduced daily. VMT has a strong inverse relationship to safety and environmental quality. The VHD reductions would lead to a decline in disruptions related to incidents and additional savings on VMT-related emissions.
- **Transit Crowding** also improves significantly due to the reduction in transit commute trips during peak periods as more people telework. Although these reductions do not target bottlenecks, they would occur system-wide.
- **Pedestrian and Bicyclist Safety** may improve as VMT declines, but effects are very dependent on the impacts on travel in areas with significant bicycle and pedestrian activity. Without a more detailed, location-specific analysis, this is therefore only rated as low.
- **Reliable Access to Intercity Hubs** improves with declines in VHD, but this benefit is tempered because the initiative does not improve the share of travel occurring on reliable modes.

Challenges Not Addressed by Initiative 10

- Initiative 10 does not appear to result in any negative impacts to the challenges, and has limited effects on a significant number of them.

Potential Compatibilities or Conflicts with Other Initiatives

Initiative 10 would be very compatible with all the other initiatives and could result in dramatic results if paired with other initiatives that have a high impact.

[27] Source: Analyses performed by COG, ICF, Sabra Wang (SWA), Fehr & Peers (F&P), and Shapiro Transportation Consulting (STC).

Table 26: Summary of Initiative 10's Performance on Measures of Effectiveness Compared to 2040 CLRP

Quantitative MOEs	2040 CLRP	Initiative	Change from CLRP
Travel Time: average travel time per commute trip			
Single occupant vehicle (SOV)	50.7	48.5	-4%
High-occupancy vehicle (HOV)	58.9	55.2	-6%
Transit	53.9	54.1	<1%
Vehicle Hours of Delay			
Daily vehicle hours of delay	1.85 million	1.39 million	-24%
Jobs Accessible			
Transit: # of jobs accessible within 45-min transit commute	523,000	523,000	0%
Auto: # of jobs accessible within 45-min auto commute	876,000	922,000	10%
Commute Mode Share			
Single occupancy vehicle (SOV)	58.1	53.2*	-8%*
High-occupancy vehicle (HOV)	11.6	14.3*	24%*
Transit	24.6	26.0*	6%*
Bicycle/Pedestrian	5.6	6.5*	16%*
Travel on Reliable Modes			
Share of passenger miles on reliable modes	11.5%	11.2%	-3%
Vehicle Miles Traveled (VMT)			
Daily VMT	141.91 million	133.61 million	-6%
Daily VMT per capita	21.2	19.9	-6%
Transit Options			
Share of households in zones with high-capacity transit	39.9%	39.9%	0%
Share of jobs in zones with high-capacity transit	57.7%	57.7%	0%
Emissions			
VOC Emissions	17.2	15.9	-8%
NOx Emissions	17.0	15.9	-7%
CO2 Emissions	47,082.3	43,575.3	-7%

* Mode shares reflect trips taken. Due to telework, actual number of transit trips declines; bicycle/pedestrian stays flat; HOV increases slightly.
Source: Analyses performed by COG, ICF, Sabra Wang (SWA), Fehr & Peers (F&P), and Shapiro Transportation Consulting (STC).

Initiative 10 performs exceptionally well on reducing VHD, VMT, emissions, and travel times; and on increasing HOV mode share. The mode shares for commute trips increase for HOVs, transit, and bicycle/pedestrian modes. Given the significant amount of telework, however, the overall number of work trips drops significantly, resulting in an actual reduction in all motorized trip types. This initiative appears slightly worse than the CLRP on the share of passenger miles occurring on reliable modes due to the overall reduction in work trips, which have a higher transit share than non-work trips; but in actuality, overall reliability would be expected to improve. Given the significant increases in telework that have occurred over the past decade in the region, particularly among federal employees, it is worth noting that a portion of the benefits demonstrated for this initiative may reflect increases in telework that are expected compared to what is assumed in the 2040 CLRP forecast. Still, this initiative demonstrates the possibilities of significant changes in travel through policy decisions; market forces and other factors will also influence adoption of these employee benefits.