

Appendix F. VMT Mitigation Report



MEMORANDUM

To: Damon Davis, County of San Diego
From: Stephen Cook, TE, Intersecting Metrics
Date: April 17, 2026
Regarding: **County of San Diego Housing Opportunity Area VMT Analysis**

The purpose of this memo is to document the methodology and data sources used to conduct a vehicle miles traveled (VMT) impact analysis for potential housing density increases identified within the Housing Opportunity Areas located in unincorporated portions of San Diego County (County). Potential mitigation strategies and their associated costs are also provided for the identified VMT related impacts.

Housing Opportunity Areas

The Housing Opportunity Areas were developed as a way to identify opportunities to increase housing densities in areas of the County that can sustainably support additional housing. The program also looks at developing a VMT mitigation program within the Housing Opportunity Areas to remove the potential barriers associated with VMT related impacts. The development of the Housing Opportunity Area boundaries focused on the locations within the County where increasing housing densities could potentially result in no or minimal VMT related impacts. As such, the Housing Opportunity Areas are comprised of Transit Opportunity Areas (TOAs), infill areas, SANDAG Smart Growth opportunity Areas, and some County Village areas. A detailed analysis of how the Housing Opportunity Area boundaries was selected is provided in **Attachment 1**. **Figure 1** displays the locations of the Housing Opportunity Areas.

An analyses of current market conditions as well as the financial feasibility of attracting a higher density of development within the Housing Opportunity Areas was conducted. This analysis was used to identify potential zoning changes within the suitable housing areas as well as to develop an understanding of the potential yield in additional housing units that could be built within Housing Opportunity Areas. The financial evaluation and recommended zoning changes are provided in **Attachment 2**. The financial and zoning analyses identified the potential to increase the current zoning on 297 parcels, resulting in the potential yield of 11,329 housing units.

VMT Assessment

A VMT assessment was conducted to determine the potential VMT related impacts that could be associated with the proposed increased in housing density within the Housing Opportunity Areas. The VMT analysis was conducted using the SANDAG Series 15 (ABM 3) Base Year 2022 model. To conduct the VMT assessment the following steps were applied to each parcel in which potential housing densities increases were identified:

1. *Identifying Impact Locations:* Using the SANDAG ABM 3 base year model, the VMT per capita for each parcel in which housing density increases were identified, was documented. The VMT per capita of each parcel was then compared against the County's residential VMT threshold of 14.24 miles per capita. Parcels in with a VMT per capita was over the County's residential VMT threshold were to identify to have a VMT related impact.
2. *Identifying Excess VMT:* The excess VMT for each impacted parcel was identified by subtracting the VMT per capita identified for the impacted parcel by the County's residential VMT threshold.



3. *Residential Density VMT Reduction:* As outlined in T-1 of *the Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (GHG Handbook)¹ increasing the residential density of an area can result in a decrease in VMT. As such, these VMT reductions, as prescribed by the GHG Handbook, were applied to the excess VMT generated, based on the proposed housing density of the impacted parcel.
4. *Total VMT Impact:* The Total VMT impact associated with the identified housing increases was determined for each parcel. The total number of new housing units that would be allowed by the identified housing density increase on the parcel was multiplied by the average number of people per household within the unincorporated portions of the County (2.78²), and then by the excess VMT that would be generated on the parcel³.

The detailed VMT analysis conducted for each parcel in which housing density increases are proposed is provided in **Attachment 3. Table 1** summarizes the VMT related impacts by Community Planning Area (CPA).

Table 1: VMT Related Impact by CPA

CPA	Total New Dwelling Units	Population Increase ¹	Daily VMT Related Impact (Miles)
Alpine	226	629	2,168
Bonsall	1,059	2,944	14,248
Fallbrook	3,649	10,144	23,145
Hidden Meadows	219	609	3,216
Lakeside	1,181	3,281	13,445
North County Metro	285	791	1,910
Ramona	1,615	4,492	9,046
Spring Valley	217	603	236
Sweetwater	38	106	77
Valle De Oro	210	584	0
Valley Center	2,630	7,309	53,377
Total	11,329	31,492	120,870

Notes:

¹Population increase is the total number of dwelling units multiplied by the average number of people per household (2.78).

VMT Mitigation

There are multiple options for mitigating the VMT related impacts associated with the identified housing density increases within the Housing Opportunity Areas. The County could implement a local VMT mitigation fee or exchange program that focuses on implementing VMT reducing infrastructure within the Housing Opportunity Areas. Implementing a local and focused program would help to ensure that multi-modal and other VMT reducing infrastructure is implemented as the new development within these areas

¹ https://www.caleemod.com/documents/handbook/ch_3_transportation/measure_t-1.pdf

² Source: SANDAG ABM 2+ Base Year Model

³ Reduced based on Step #3.



occurs; thus, creating a multi-modal environment within these areas from the beginning and increasing the chances to reducing VMT. However, there is a strong chance that there would not be sufficient VMT reducing infrastructure within the Housing Opportunity Areas that would be effective enough to fully reduce the programs 120,870 miles of VMT related impacts. Therefore, the identified housing density increases would result in significant and unavoidable VMT related impacts, even with the development of a localized VMT Mitigation program. Therefore, the program would require an Environmental Impact Report (EIR) to disclose the impacts and seek a statement of overriding considerations (SOC).

If the County decides not to implement a local VMT mitigation program or identifies the need to fully mitigate the VMT related impacts associated with the housing density increases, they have the ability to participate in the upcoming San Diego Regional VMT Mitigation Program (Regional Program) as well as the State of California VMT Mitigation Bank Program (Statewide Program). The cost to mitigate VMT through the Regional Program will be dynamic and dependent on the types and location of VMT reducing infrastructure that is posted at any given time by the program. However, based on initial estimates, the anticipated cost to mitigate through the regional program will be between \$2,700 to \$4,500 per mile of VMT that needs to be reduced. The cost to reduce VMT within the San Diego Region through the statewide program would cost \$3,408 per mile of VMT that needs to be reduced. **Table 2** outlines the total cost to mitigate all of the VMT related impacts associated with the program through the statewide and regional programs.

Table 2: VMT Mitigation Cost – By CPA

CPA	Statewide Program	Regional Program (Lower End)	Regional Program (Upper End)
Alpine	\$7,389,703	\$5,854,518	\$9,757,530
Bonsall	\$48,560,456	\$38,472,192	\$64,120,320
Fallbrook	\$78,878,058	\$62,491,419	\$104,152,365
Hidden Meadows	\$10,958,492	\$8,681,904	\$14,469,840
Lakeside	\$45,820,935	\$36,301,797	\$60,502,995
North County Metro	\$6,510,541	\$5,157,999	\$8,596,665
Ramona	\$30,829,552	\$24,424,821	\$40,708,035
Spring Valley	\$802,618	\$635,877	\$1,059,795
Sweetwater	\$265,176	\$210,087	\$350,145
Valle De Oro	\$0	\$0	\$0
Valley Center	\$181,909,804	\$144,118,683	\$240,197,805
Total	\$275,745,294	\$338,414,679	\$564,024,465

It is assumed that if the County moved forward with a local VMT Mitigation Program it would be similar in cost to the upper end of the Regional Program.



Attachment 1
Housing Opportunity
Areas Boundary
Development Reports



Attachment 2
Financial Assessment & Zoning
Change Recommendations



Attachment 3

VMT Analysis