

Transit Opportunity / Sustainable Housing Areas VMT Assessment

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COUNTY OF SAN DIEGO
PLANNING & DEVELOPMENT

Prepared for Planning & Development Services by:



County of San Diego
Planning & Development Services Department

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FINAL

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¹ This project was originally titled “Transit Opportunity Area VMT Assessment.” However, the area criteria expanded to the broader category of “Sustainable Housing Areas” during the project timeline.

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I. DEFINITIONS²

Active Transportation – The movement of people or goods through non-motorized means. It is based around human physical activity and often requires pedestrian or bicycle infrastructure such as sidewalks and bicycle lanes.

California Environmental Quality Act (CEQA)– California law in Public Resources Code Section 21000 et seq. and California Code of Regulation, Title 24, Division 6, Chapter 3, Section 15000 et seq. (CEQA Guidelines) that requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of proposed projects, and to reduce those environmental impacts to the extent feasible.

Infill – Defined by the California Governor’s Office of Land Use and Climate Innovation³ as “...building within unused and underutilized lands within existing development patterns, typically but not exclusively within urban areas.” Multiple land use and transportation network variables were identified to create a quantitative definition for “infill development” in the County, including household density, intersection density, and job accessibility.

Level of Service – A metric used to analyze roadways and intersections by categorizing traffic flow and assigning quality levels of traffic based on delay or density.

Mobility Hub – As identified by the San Diego Association of Governments (SANDAG), locations where people can connect to many types of transportation such as public transit, bike lanes, and shuttles.

Sustainable Housing Areas – Areas identified by the County of San Diego with opportunities for increased housing densities that could potentially result in no or minimal Vehicle Miles Traveled (VMT)-related impacts. The Sustainable Housing Areas comprise Transit Opportunity Areas (TOAs), infill areas, SANDAG Smart Growth Opportunity Areas, and some County Village areas, as identified in the County’s General Plan.

Transit Opportunity Areas (TOA) – Areas in which the regional transit network has the best opportunity to be expanded within the unincorporated county and are near or adjacent to SANDAG-identified “Mobility Hubs.”

Transportation Study Guide (TSG) – A County of San Diego document that provides criteria regarding how projects should be evaluated for consistency with the County’s transportation goals, policies and plans, and through procedures established under CEQA. The TSG establishes the contents and procedures for preparing a Transportation Study in the County of San Diego.

² Most definitions are sourced from the County of San Diego Transportation Study Guide (2022).

³ This office was retitled Office of Land Use and Climate Innovation (LCI or Cal LCI), in 2024.

The TSG aids in determining appropriate mitigation under CEQA, as well as site-specific improvements to the transportation system to accommodate project traffic.

Vehicle Miles Traveled (VMT) – The number of miles traveled by motor vehicles on roadways in a given area over a period of time.

Village Areas – Locations identified in the County of San Diego General Plan as areas where a higher intensity and a wide range of land uses are established or have been planned. Typically, Village Areas function as the center of community planning areas and contain the highest population and development densities, and are located within walking distance of commercial services, employment centers, civic uses, and transit (when feasible).

VMT Mitigation Program – A framework that allows developers whose projects are identified to have a VMT-related impact to provide mitigation through a payment of fees, which ultimately fund VMT reducing infrastructure and/or programs. Programmatic VMT mitigation is generally a more effective approach in reducing VMT, as it allows jurisdictions to implement multi-modal infrastructure as a full system, with limited gaps, in areas with higher densities where the infrastructure is most effective.

VMT Based Fee Program – A program in which a development project undergoes a fee assessment based on the severity of its VMT-related impact. The fee generally is based on new development's fair-share cost to implement off-site VMT-reducing infrastructure to offset or reduce a new development's impact to less than significant (under CEQA-related criteria). The revenue collected from the fee program can then be used to implement the multi-modal infrastructure improvements outlined in the SANDAG's Regional Transportation Plan (RTP) or other Capital Improvement Plan (CIP) programs.

VMT Mitigation Banking – A mitigation approach that allow developers to buy VMT reduction credits from the County or other jurisdictions within the region that are the result of previously constructed VMT-reducing infrastructure or planned infrastructure that will be constructed within the near future. This program would operate similarly to a biological mitigation banking program, or the Carbon Offset program. The fees collected from this program would then be used to construct additional VMT-reducing infrastructure in new locations or to close gaps within the existing multi-modal network, thus making the network more efficient.

VMT Exchange Program – A program allowing developments with VMT-related impacts to work with the County, or other local jurisdictions, to fund and implement off-site VMT-reducing infrastructure and/or programs to off-set their VMT related impacts. This program allows new development within suburban and rural jurisdictions to invest in multi-modal/VMT-reducing infrastructure in more urban jurisdictions where higher reductions are possible and more efficient.

II. BACKGROUND

The adoption of Senate Bill (SB) 743 changed the way the State of California conducts required traffic analyses per the California Environmental Quality Act (CEQA) for public and private development projects. Previously, CEQA review for traffic impacts was based on level of service (LOS). Effective as of July 1, 2020, SB 743 requires a method of “vehicle miles traveled,” or VMT, to analyze transportation impacts on the environment and to identify mitigation measures to reduce those impacts.

VMT reflects the amount of driving and lengths of trips. A lower VMT equates to a lower environmental impact; a higher VMT equates to a higher environmental impact. Low VMT may be achieved by locating housing development near a mass public transit stop (e.g., a trolley stop) or an active transportation infrastructure (e.g., a bike lane). High VMT can also be mitigated by developing new transit stops and infrastructure. The standards and criteria for transportation-related impacts are outlined below:

CEQA Guidelines Section 15064.3(b)(1): Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

On February 9, 2022, the County of San Diego Board of Supervisors directed County staff to revise the local Transportation Study Guide (TSG). The TSG outlines how to evaluate projects for environmental impact and how to determine appropriate mitigation under CEQA. Direction from the Board included the following:

- Establish a VMT threshold for the County of San Diego using the regional average (inclusive of incorporated cities).
- Identify “Infill Areas” and General Plan “Village Areas” within or near potential “Transit Opportunity Areas (TOAs).” Within these “Infill Areas” and “Village Areas,” no CEQA review for VMT analysis or mitigation would be required. (CEQA review for other topic areas may still apply.)

The TSG was adopted on September 28, 2022, and revised again in January 2026.

All proposed housing development projects are assessed against an impact threshold. Per CEQA requirements, any project found to have “significant impact” is required to include mitigation measures to reduce that impact. Projects determined to have “less than significant impacts” do not require mitigation measures.

Generally, mitigation measures for VMT-related impacts can be accomplished with the creation of multi-modal transportation infrastructure (such as bicycle, pedestrian, and mass transit facilities) to increase mobility options beyond personal vehicles. However, multi-modal infrastructure can be challenging for the following reasons:

1. It is implemented by the developer for the project site, resulting in “spot treatment”, rather than implemented as a comprehensive system. This yields gaps in service and ineffective infrastructure.
2. If implemented in areas of high-density land uses (e.g., urban areas), it is more effective in reducing VMT (higher ridership, more frequent use, etc.). If implemented in medium- or low-density land uses (e.g., suburban or rural areas), it is less effective in reducing VMT. Cost of implementation may be the same in different areas, but the output is very different.
3. Public transportation is often provided by third-party private entities. In the case of the County of San Diego, public transit is offered by the Metropolitan Transit System (MTS) and North County Transit District (NCTD). Therefore, construction of a new mass transit stop is not within the County of San Diego’s responsibility.

For these reasons, programmatic (rather than capital) measures can be more successful when applied systemwide. A Countywide VMT Mitigation Program may include VMT Based Fee Programs or VMT Mitigation Banks. However, given the greater vehicle miles traveled for daily tasks in suburban areas as compared to urban areas, the cost per VMT would similarly be greater in suburban areas and less in urban areas. Based on the extent of suburban VMT, the costs may be prohibitively high and hinder new housing development.

III. PROJECT INTRODUCTION

In late 2024, the County of San Diego hired a consultant team to conduct a study calculating expected fee costs for specific “Transit Opportunity Areas” to determine the likely impact of a Vehicle Miles Traveled (VMT) Based Fee Program, if applied Countywide. In phase 1, the study only looked at Transit Opportunity Area (TOA)s; in phase 2, this was expanded to include Village Areas, Smart Growth Areas, Infill Areas, and Assembly Bill (AB) 130⁴ parcels, altogether referred to as “Sustainable Housing Areas” (see Figure 1). The study involved reviewing parcels within these Sustainable Housing Areas to analyze housing development potential (market conditions, financial feasibility, and existing General Plan residential densities). Based on those analyses, a portion of parcels were identified as potentially suitable for increased residential density. Using those identified parcels, and their recommended upzoned densities, an analysis was conducted to determine VMT-related environmental impact and fee-based mitigation strategies.

The objective of the analysis was to present to the Board the theoretical impact of a VMT Mitigation Program on housing development in San Diego County’s Sustainable Housing Areas. Calculated impacts⁵ inform whether certain areas would be overly burdened with VMT Based Fees, thus likely disincentivizing any housing development in those locations. Results from this study are presented to the Board for their consideration of a VMT Mitigation Program as a regional strategy.

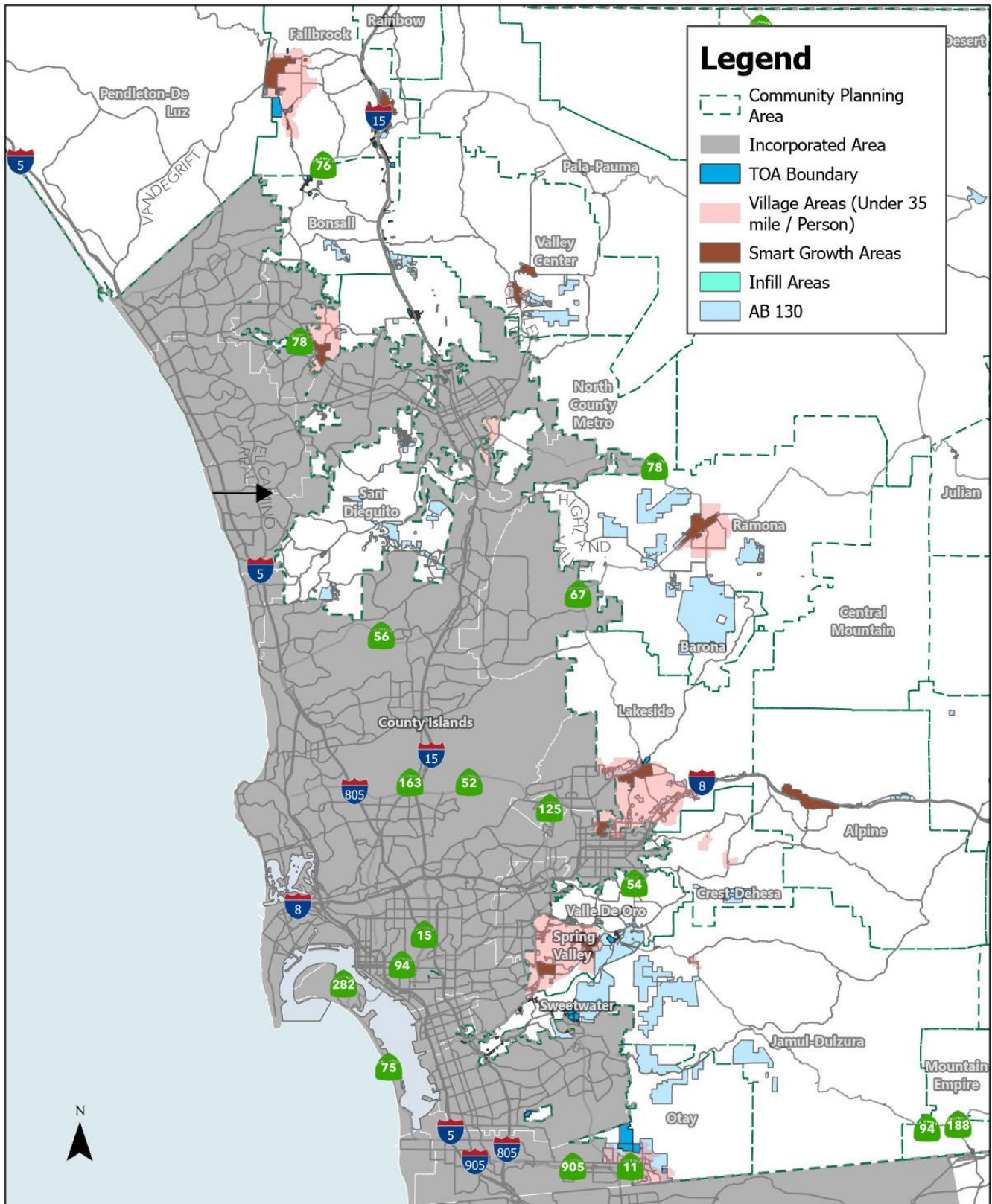
This project is separate from, but part of, a larger effort of housing initiatives being undertaken by the County of San Diego. Key initiatives include the County’s Sustainable Land Use Framework (Framework) which builds on smart growth⁶ principles, by taking a regional systems-based approach to planning. This approach helps identify where development and density should be focused to support efficient land use and mobility networks. Additional initiatives include the Development Feasibility Analysis (DFA) which focuses on strategies to reduce barriers to housing development, and the Sustainable Housing Areas/TOA which focuses on land use modifications and VMT mitigation fees to support housing density in prioritized areas.

⁴ AB 130, signed by Governor Newsom on June 30, 2025, was designed to accelerate housing production by providing CEQA exemptions for qualifying urban infill projects, as defined in the legislation.

⁵ The VMT Based Fee calculation was based on methods outlined in the CAPCOA handbook and the SANDAG Series 15 (ABM 3) Base Year 2022 model. Calculations are based on vehicular travel only; no pedestrian or cycling data was applied at this stage.

⁶ Smart growth refers to focused development in compact areas close to jobs, services, and public facilities to maximize the use of existing infrastructure and preserve open space and natural resources. (County of San Diego, *Sustainable Land Use Framework*)

Figure 1. Sustainable Housing Areas



IV. PROJECT PHASES AND GEOGRAPHIC AREAS

Table 1. Geographic Areas per Project Phase

Areas	Included in Phase 1?	Included in Phase 2?
Alpine, Crest, Dehesa, and Jamul		Yes
Fallbrook	Yes	Yes
Julian		Yes
Lakeside	Yes	Yes
North County Metro North		Yes
North County Metro East	Yes	Yes
Otay	Yes	Yes
Ramona		Yes
Spring Valley		Yes
Sweetwater	Yes	
Valley Center		Yes
Valle de Oro	Yes	
County Island	Yes	

Note 1: The above area nomenclature is used for project purposes only. Area names are not official and may not align with boundaries of other County projects.

Note 2: Phase 2 included market and financial analysis of only 8 areas. The other areas were previously analyzed in Phase 1.

V. ANALYSES

Four separate analyses were conducted to review the Sustainable Housing Areas and relevant parcels:

1. TOA / Sustainable Housing Area Boundaries Determination
2. Market and Financial Feasibility Assessment
3. Land Use Analysis
4. VMT Assessment

Transit Opportunity / Sustainable Housing Areas Boundaries Determination

The project occurred in two phases. The **first phase** looked at areas based on an index,⁷ which was applied to parcels within a one-half-mile buffer of future transit lines. The parcels were then ranked on a points system to determine which parcels meet the minimum criteria to be considered a TOA parcel candidate. The **second phase** expanded the original area based on Village Areas, Smart Growth Areas, Infill Areas, and AB130 parcels.

For more detailed information, see Appendix A.

Market and Financial Feasibility Assessment Summary

To further inform potential development feasibility in target areas, an assessment evaluating market support for increased housing density was conducted.⁸ The analysis included a review of demographic characteristics such as median household income and population; projects currently under construction and in the pipeline; recent land sales for new development; proximity to transit and the prevalence of neighborhood amenities; median sales prices for detached/attached single-family homes; and average effective monthly rents for multi-family apartments. From these reviews, areas were evaluated across three timeframes: near-term (0 to 5 years), mid term (5 to 10 years), and long-term (10 to 20 years).

Building on the market study, a financial feasibility assessment evaluated the potential for residential development in the target areas. This assessment reviewed likely development costs linked to considerations such as infrastructure (water, sewer, and stormwater), construction and

⁷ Original TOA index and corresponding parcels were identified by Intersecting Metrics (IM).

⁸ For the market and financial feasibility assessments, an infrastructure capacity check was not conducted. Reasonable assumptions were made regarding which areas or sub-areas rely primarily on private wells and/or septic systems but did not attempt to quantify or independently verify that the improvements exist.

materials, incomes, employment types and availability, land costs, housing typologies, unit yield, and more. Based on findings, areas were evaluated as have “strong”, “moderate”, or “weak” feasibility to generate sufficient revenue for a developer’s positive yield.

The market and financial assessments contributed to proposed land use densities. For more detailed information, see Appendix B and Appendix C.

Land Use Analysis Summary

The Land Use Analysis was conducted using geospatial and policy data, knowledge of area-specific and neighborhood-specific characteristics, long-range planning goals, and best practices for built environment design. The approach reviewed parcels for the following attributes:⁹

- Sufficient zoning per the current General Plan designation
- Location (retail corridors, neighborhood edges, etc.)
- Parcel characteristics (size, building-to-land value, topography etc.)
- Land use adjacencies
- Environment and access
- Area characteristics (neighborhood feel, community character, etc.)

Based on phase 1 and phase 2 of the study, 297 parcels were identified. Proposed increased densities on the selected parcels would result in a potential yield of 11,329 housing units. All proposed unit increases are assumed via land use or zoning modifications. Parcels that had a General Plan Land Use of “Specific Plan” were not included in the recommended list.

For more detailed information, see Appendix D.

VMT Assessment

Based on the parcels identified for increased density, a VMT assessment was conducted to determine the potential VMT-related impacts that could be associated with such density increase. The VMT analysis was conducted using the SANDAG Series 15 (ABM 3) Base Year 2022 model. Based on new dwelling unit increase and population increase, a total daily VMT impact for each parcel was determined. Table 2 summarizes the total daily VMT-related impact per Community Planning Area under this proposed density scheme.

For more detailed information, see Appendix E.

⁹ This analysis does not parallel the County’s Climate Action Plan (CAP) Equity Implementation Framework, however overlapping priorities include safety and mobility in rural areas, economic development opportunities, daily stressors such as food access, and geography such as rural culture and place.

Table 2. VMT-Related Impact by Community Planning Area (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

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



VI. VMT MITIGATION OPTIONS

Based on the analyses and outcomes, the study presents the following options for consideration:

1. The County implements a **Countywide VMT Mitigation Program** (such as a VMT Based Fee Program or VMT Mitigation Bank/Exchange Program). However, looking at the discrepancy of fees per Community Planning Area (CPA) (Table 3), some areas will experience significantly higher impact fees than others. Costs in these areas may be prohibitively high and hinder housing development.
2. The County implements a **local VMT Mitigation Program** (such as a VMT Based Fee Program or VMT Mitigation Bank/Exchange Program) that focuses on developing VMT-reducing infrastructure in the Sustainable Housing Areas. A local and focused program would help ensure that multi-modal and other VMT-reducing infrastructure are implemented as new development within these areas occurs. However, the total calculated daily VMT (Table 2) of 120,870 miles in the Sustainable Housing Areas is unlikely to be fully mitigated with such infrastructure, leaving an excess of unaddressed VMT-related impacts. In this case, a local VMT Mitigation Program would require an Environmental Impact Report (EIR) to disclose the impacts and seek a statement of overriding considerations.
3. The County participates in the San Diego Regional VMT Mitigation Program (Regional Program) and the State of California VMT Mitigation Bank Program (Statewide Program).
 - The cost of the Regional Program would be dynamic and dependent on the types and location of VMT-reducing infrastructure posted at any given time by the program. However, based on initial estimates, the anticipated cost to mitigate through the Regional Program would be between \$2,700 and \$4,500 per mile of VMT that needs to be reduced.
 - The cost of the Statewide Program, based on initial estimates, is anticipated to be \$3,408 per mile of VMT that needs to be reduced.
 - Table 3 outlines the total mitigation costs based on the Regional Program and Statewide Program for San Diego County Sustainable Housing Areas.

Table 3. VMT Mitigation Cost by Community Planning Area (CPA) per Option 3

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

Note: 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.

VII. ADDITIONAL RECOMMENDATIONS

Additional recommendations for next steps include:

1. **Update the General Plan Land Use and Mobility Elements** to plan for increased densities in smart growth areas.
2. Conduct a **traffic analysis in specific areas** to confirm street capacity for increased density.
3. Conduct **utility verification on specific areas** to confirm utility infrastructure capacity (namely, water and sewer) to accommodate increased density. This was conducted at a high level as part of the Development Feasibility Analysis project but was not included as part of this study.

VIII. APPENDICES