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January 7, 2022

TO: Planning Commission

FROM: Dahvia Lynch, Director
Planning & Development Services

SUBJECT: **Workshop on Vehicle Miles Traveled (VMT) Considering 13 Subjects Related to Implementing VMT During Environmental Review**

REGULAR AGENDA ITEM NUMBER 1

Purpose

At its December 10, 2021 Hearing, the Planning Commission voted (5-ayes, 1-no, and 1-absent) to continue Item 2, Update on Vehicle Miles Traveled (VMT) Analysis in the Unincorporated Region to a special meeting on January 7, 2022 due to a conflict with the San Diego Association of Governments (SANDAG) hearing on the Regional Transportation Plan (RTP), which was occurring on the same day. The Planning Commission also asked staff to prepare a written report on VMT prior to the January 7th meeting. This report provides a summary of staff's analysis related to VMT and some of the potential options that are being prepared for the Board of Supervisors (Board) consideration on January 26, 2022. The Board Letter for the January 26th meeting is still being prepared and will be posted online to the Clerk of the Board's website on approximately January 19, 2022.

Background

In 2013, the State of California passed Senate Bill 743 (SB 743), which changed how jurisdictions, including the County of San Diego (County), analyze transportation impacts from privately and publicly initiated projects under the California Environmental Quality Act (CEQA). SB 743 identified Vehicle Miles Traveled (VMT) as the standard to evaluate a project's transportation-related environmental impacts. VMT replaces motorist delay and associated level of service (LOS) as the metric for analysis under CEQA. VMT measures the amount and distance people drive to destinations, and the number of trips specific types of land uses will generate. The intent behind SB 743 was to balance the needs of congestion management (traffic) with statewide goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through more active transportation, such as walking and biking.

On June 24, 2020 (6), the Board adopted the Transportation Study Guide (TSG), a technical guide for analyzing transportation impacts using VMT. The TSG describes the process and procedures for project applicants to use when preparing transportation analyses for projects in the unincorporated area beginning July 1, 2020. In September 2020, Cleveland National Forest Foundation, Coastal Environmental Rights Foundation, and the Sierra Club filed suit, alleging adoption of the TSG violated CEQA and SB 743.

On May 19, 2021 (1), the Board received information on how VMT implementation was progressing nearly a year after adoption of the County's TSG and options for potential updates to how the County analyzes transportation impacts of proposed projects under CEQA. The Board directed staff to explore 13 items related to VMT for projects in the unincorporated areas, including more opportunities for infill development, creation of transit accessible areas, opportunities for affordable housing, and VMT mitigation programs.

In its 2018 guidance, the Governor's Office of Planning and Research (OPR) recommended that, for projects in the unincorporated area, the lead agency compare a project's VMT to "the region's" average VMT. However, the OPR Technical Advisory did not define a region and did not make any specific recommendations on the boundary that should be established for the unincorporated area to analyze VMT. On June 29, 2021, OPR clarified that the unincorporated area of counties should use a threshold based on the regional average VMT, which includes the entire San Diego County region. This change to the geography reduces the VMT efficient area within the unincorporated area. VMT efficient areas are locations that meet the threshold to allow projects to move forward without VMT analysis. Projects located outside VMT efficient areas must perform VMT analysis and are required to mitigate for, or offset, any VMT-related impacts. There is currently not a mitigation program in place for these impacts and mitigating on a project-by-project basis is challenging and costly. This reduces the feasibility of development outside of these areas. Based on an unincorporated VMT average, there are approximately 45,444 acres that are VMT efficient, which is approximately six percent of the unincorporated area under the County's land use jurisdiction. Based on a regional VMT average, the area is reduced to approximately 2,467 acres, which is approximately 0.34 percent of the unincorporated area.

In light of the clarification from OPR that unincorporated areas should use a VMT threshold based on a regional average, on September 15, 2021(1), the Board adopted a resolution to rescind the current TSG, which had relied on an unincorporated area average for VMT. This resolved the lawsuit on the TSG.

As directed by the Board on May 19, 2021, staff investigated 13 items related to VMT for projects in the unincorporated area, including more opportunities for infill development, creation of transit accessible areas, opportunities for affordable housing, VMT mitigation programs, as well as other directed items, in this Planning Commission report. Staff has provided options under each of the 13 items.

1. *Assess and explore the process by which infill development can be done in a manner to ensure no VMT mitigation is necessary.*

2. *Explore the potential creation of transit accessible areas and look at the intersection between VMT efficient areas or lower thresholds in accordance with the areas that do not require further analysis. Explore the potential transit corridors and look at the SANDAG Regional Transportation Plan, Metropolitan Transit System (MTS), North County Transit District (NCTD), and other possible areas and how that may impact VMT efficient areas or areas covered by the exemption.*
3. *Explore programmatic or plan-level mitigation opportunities for VMT, including the concept of a regional mitigation bank.*
4. *By-right process for development in VMT efficient areas.*
5. *Further exploration of exceptions to the VMT thresholds for affordable housing projects at less than 100 percent affordable, including mixed income and various components of Area Median Income (AMI), along with exploring the possibility of exceptions for middle income or workforce housing, local hire, and agriculture type projects that might have a net impact of lowering VMT.*
6. *Explore land use density of land that is in VMT efficient areas.*
7. *Continue to track guidance from the California Office of Planning and Research (OPR), along with other governing body efforts, including the SANDAG Regional Transportation Plan.*
8. *Monitor the progress of other jurisdictions as it relates to their adoption, along with what unique programs, exemptions, or opportunities they may be exploring that the County may want to consider.*
9. *Consider a phase-in timeline to allow for a transition into a regional geography.*
10. *Consider compliance options for projects that have already been proposed or are in the process now.*
11. *Conduct an analysis of the options to remove the Local Mobility Analysis.*
12. *Inform the Board regarding updates on development of the Smart Growth component of the Climate Action Plan (CAP) Update and Supplemental EIR to ensure it is integrated and aligned with efforts around VMT.*
13. *Conduct an analysis of proposed housing projects designated for individuals under 60 percent AMI and under 80 percent AMI and the potential cost impact of switching to a regional geography.*

The following is County staff's analysis of the 13 items directed by the Board related to the implementation of SB 743 and VMT in the unincorporated area. The Planning Commission can receive the report and take no action on the workshop today or provide comments or a recommendation that can be incorporated into the report to the Board. The Planning Commission can provide comments or recommendations related to A) Opportunities for Infill Development, Transit, By-Right Development, and Land Use Changes (Items 1, 2, 4, 6 and 12); B) Opportunities for VMT Mitigation (Item 3); C) Opportunities to Prepare a Revised Transportation Study Guide (Items 7, 8, 9, and 10); D) Affordable Housing (Items 5 and 13); and E) Opportunities for Local Mobility Analysis (Level of Service) (Item 11).

Project Analysis

Staff researched and analyzed the 13 items directed by the Board and grouped them into categories based on the topic. The following is an analysis of each topic with options identified for each, followed by an overall summary of all the options provided. The purpose of this workshop is to

receive input and stakeholder feedback on the potential options as they are finalized and will inform the staff recommendations to the Board, which are still being developed.

A. Opportunities for Infill Development, Transit, By-Right Development, and Land Use Changes (items 1, 2, 4, 6 and 12)

Opportunities for Infill Development (Item 1)

County staff and its consultant team (Fehr and Peers and Intersecting Metrics) researched how infill development might be evaluated for VMT transportation analysis under CEQA and the creation of future transit opportunities. The intent of SB 743 was to streamline environmental review for land development projects located within infill areas close to transit, however no specific definition for infill was provided. To understand what is considered “infill” development in the unincorporated area, staff evaluated multiple land use and transportation variables to create a definition.

Defining Infill Development in the unincorporated area

Infill development has been studied for decades by researchers, and each research study and paper has provided varying definitions for infill development. Infill development is defined by OPR as “...building within unused and underutilized lands within existing development patterns, typically but not exclusively within urban areas.” A definition for infill is also codified in California’s Public Resources Code Section 21061.3 and includes criteria involving adjacent urban development, recent development approvals, and history of development on the site.

County staff and the consultant team developed infill definitions and criteria based on a literature review and socioeconomic data from SANDAG as well as the definition from OPR. A framework for selecting appropriate variables to define infill was then evaluated. The following data was analyzed as part of the process:

- Population density (the number of people per unit of area)
- Housing density (the number of dwelling units per acre)
- Employment density (the number of employees per square feet of building space and acres of land)
- Intersection density (the number of intersections or places where two or more roads meet and cross each other. High intersection density corresponds to a more walkable environment and accessibility to destinations is high).
- Access to jobs within a 15-mile radius
- Access to shopping/restaurants within a one-mile radius

Based on this analysis, the following criteria was prepared to define and map infill in the unincorporated area:

1. **Household density.** Household density above 385 housing units/square mile was selected based on the US Census definition for urban area.
2. **Intersection density.** An urban area is defined by having over 128 intersections per square mile.

3. **Jobs Accessibility.** The number of employment opportunities within a 15-mile radius of a location.

Using the above criteria creates a geographic area that is associated with urban development within the unincorporated area of the county. Development in more dense areas with high job accessibility leads to more diversity in land use, demand for transit (bus and trolley) and multimodal infrastructure (walking and biking), and shorter vehicle trips, which reduce greenhouse gasses and VMT.

The County's General Plan Housing Element identifies a remaining capacity of over 58,000 dwelling units. Based on the infill analysis, the communities of the unincorporated area that meet the definition of infill include portions of San Dieguito, Bonsall, Ramona (along Main Street), Fallbrook, Lakeside, Valle De Oro, Spring Valley, Alpine, and Sweetwater. As a result of these areas meeting the urban infill definition, the Board could consider allowing development projects to be "screened out" in these areas, which means that projects can move forward without VMT analysis. In total, infill areas include approximately 13,502 acres or 1.9 percent of the unincorporated area and would support approximately 2,920 additional housing units based on the current General Plan. Maps of the infill areas are included in Attachment A – Technical Memorandum, Infill Opportunity Areas in unincorporated San Diego County.

Table 1 identifies the acreage, total housing units, and percentage of remaining General Plan dwelling unit capacity within each of the infill area options by Supervisorial District. For example, within the infill area there are a total of 2,920 planned housing units, which is three percent of the overall planned housing capacity of the General Plan. Each row in Table 1 below includes the total number of acres and planned housing units under the General Plan for each option. For comparison, the acres, total housing units, and percentage of dwelling unit capacity within VMT efficient areas using the regional geography average is included.

Based on stakeholder feedback, additional options were also included in Table 1 that expand beyond the infill areas to include a buffer. These options reduce the likelihood of a project on one side of the street being classified as infill, while a project on the opposite side of the street is not. The buffers capture more of the surrounding area and smooth out or reduce these types of inconsistencies. These options include a buffer that encompasses adjacent areas that have similar "urban" characteristics, including mixed land uses. The buffers resemble concentric circles that extend out from the center, which in this case is the infill area. For example, the "infill + buffer" option includes the entire Traffic Analysis Zone (TAZ), which is a defined area in the SANDAG traffic model that has similar driving attributes. The "infill + buffer" options in the table below include the total acres and units from the infill and buffer area, not only the buffer. Staff also included a "village" buffer option in which each of the infill areas includes the entire "village" area as identified in the General Plan if the infill area falls within its boundaries. These options increase the overall size of the "infill area" and include approximately 10,000 planned housing units under each option. Table 1 identifies the acreage of each buffer option, including the number of planned housing units and percentage of the overall 58,000 planned housing units.

Table 1: VMT Efficient and Infill Options

	Acres	Planned Housing Units within each Supervisorial District					Total Planned Housing Units	Total % of Planned Housing Units
		1	2	3	4	5		
VMT Efficient Regional Average	2,467	207	325	0	0	1,219	1,751	3%
Item 1 – Infill Area Options (each row below is the total number of acres and housing units and not additive to previous rows, however each of these rows however would be in addition to the VMT Efficient Regional Average row)								
Infill Area	13,502	175	1,818	106	0	821	2,920	5.0%
Infill + Buffer	64,838	414	5,987	520	0	3,315	10,236	17.6%
Infill + Village	33,782	175	5,019	503	0	4,480	10,177	17.5%

Item 1 – Infill Area Options:

Using criteria to define and map infill areas provides the geographic location of existing urban areas in the unincorporated area. However, because most of these defined infill areas are not located within VMT efficient areas when applying a regional geography using the SANDAG region, the following options are provided on how the County could move forward with screening out future development from VMT analysis within infill areas:

Option 1-A: New VMT Screening Criteria for Infill Areas

Establish new screening criteria to allow projects within one of the above infill area option locations to move forward without VMT analysis. The substantial evidence to support the infill areas would be prepared as part of a new transportation study guide (TSG) (Option 7-A) or a separate VMT screening threshold based on the information provided in Attachment A, which includes the research and analysis conducted to define and map infill areas within the unincorporated area. The new TSG (Option 7-A) or VMT screening threshold would require a 30-day public review period prior to consideration and adoption.

A specific concern raised in the previous VMT litigation was that an environmental impact report (EIR) should have been prepared with the preparation of the VMT guidelines, including any associated screening criteria. Environmental review is not required when a local jurisdiction adopts guidelines for CEQA review, including setting thresholds to determine if a project has a significant environmental impact, but the thresholds must be supported by substantial evidence (CEQA Guidelines § 15064.7(b)). As a result, the Board can adopt the infill areas without environmental analysis and screen out projects from VMT analysis,

however this action could again be challenged. Another option is to include the infill areas in a programmatic EIR that is required for other options included in this report.

If the Board would like a programmatic Environmental Impact Report (EIR) to be prepared, Option 1-B should be adopted in lieu of Option 1-A to address concerns related to environmental review for projects outside of VMT efficient areas.

Option 1-B: Programmatic Environmental Impact Report (EIR)

Prepare a programmatic EIR to analyze the VMT impacts from projects located within infill areas. Establishing a new threshold does not require environmental analysis under CEQA as described under Option A. However, review of the thresholds could be combined with other VMT efforts that could require environmental review. An EIR would provide environmental coverage for future projects within infill areas, so no additional VMT analysis would be required by private applicants for each individual project. Therefore, preparing an EIR could be prudent; however, even with an EIR, there is the possibility that the EIR may require a statement of overriding considerations to certify the EIR and adopt the infill screening threshold. A statement of overriding considerations is only used when a project has environmental impacts that cannot be mitigated. A statement of overriding considerations allows a decision-maker to approve a project considering the unavoidable environmental effects because of the potential economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits. In this case, the use of an infill screening threshold would support other Board directed efforts such as building new and affordable housing in areas located near employment, services, and future transit. These reasons and others could be used to support a statement of overriding considerations.

Option 1-C: Use the Infill Area Maps as a Reason for Adopting a Statement of Overriding Considerations on a Project-by-Project Basis (can be combined with Option 1-B above)

Until a programmatic EIR is certified, the status quo will continue and individual projects will be considered on a case-by-case basis. Development can be encouraged within infill areas to balance the benefits of locating projects in these areas against the significant unavoidable VMT impacts by adopting a statement of overriding considerations for a project. The Board will still have discretion to approve or deny a project based on the merits of each individual project, but its location within an infill area can be a significant consideration.

Additional considerations that were analyzed in evaluating an infill definition included high and very high fire hazard areas. In most cases, development in the wildland urban interface is not likely to be considered infill as it is likely to be less dense. A map showing the fire hazard areas in relation to these infill areas can also be found in Attachment A. In total, approximately 3,278 acres of the infill area (13,502 acres) is within high or very high fire hazard zone and includes approximately 614 homes out of the 2,920 planned in the General Plan. The very high fire hazard zone includes 1,961 acres and 411 planned housing units and the high fire hazard zone includes 1,317 acres and 203 planned housing units. As an option, one or both areas could be removed from the infill areas.

Opportunities for Regional Transit (Item 2)

Regional transit services within the unincorporated area are currently limited to a single Sprinter Station (Buena Creek) in the North County Metro Area near Vista. This presents a significant VMT challenge for the unincorporated area since it is predominantly comprised of lower density suburban and rural communities that are not served by transit, despite having a population of approximately 512,597 living in the unincorporated area.

As outlined in OPR's Technical Advisory Document, new development located within a half-mile of a major transit stop (e.g., Buena Creek Sprinter Station) is presumed to have a less than significant transportation impact, regardless of the project's anticipated VMT generation. These areas have been defined as Transit Priority Areas (TPA). However, the OPR Technical Advisory further notes that if project-specific or location-specific information indicates that the project will still generate significant levels of VMT, further VMT analysis would be necessary, even if the project is located within a half mile of the major transit stop. Examples of this include projects that provide more parking than is required, are inconsistent with the Regional Transportation Plan Sustainable Communities Strategy, which lays out how the region will meet greenhouse gas (GHG) reduction targets set by the California Air Resources Board (CARB), or projects that replace affordable units with a smaller number of moderate- or high-income units.

- **San Diego Forward 2021 Regional Plan**

San Diego Forward is the Regional Transportation Plan (RTP) for the San Diego Region. The RTP sets the vision, plan, timing, and funding allocation for a region's transportation network. As the Metropolitan Planning Organization (MPO) for the San Diego Region, SANDAG is responsible for developing, publishing, and implementing the region's RTP. SANDAG released its initial Draft of *San Diego Forward: the 2021 Regional Plan (2021 Draft Regional Plan)* in May 2021, and this was used as the primary resource to identify potential opportunities to expand future transit services within the unincorporated area. Subsequently, the 2021 Draft Regional Plan was adopted by the SANDAG Board of Directors on December 10, 2021.

- **RTP Transit Leap**

High-frequency regional transit routes such as fixed rail, bus rapid transit (rapid bus), or express bus services are generally considered to be associated with high-quality transit corridors with major transit stops and the types of transit services that facilitate Transit Opportunity Areas (TOAs), where future development is encouraged to build around, as outlined in SB 743. TOAs are areas identified as opportunity areas to expand transit services due to their proximity to Mobility Hubs, infill areas, higher density land uses, and County General Plan Villages. Currently in the 2021 Regional Plan, there are a limited number of high-frequency regional transit services planned within the unincorporated area, limiting the number of opportunities to create future TOAs. A Next Gen Rapid route, described in the SANDAG RTP as a faster more reliable rapid bus with service every 10 minutes all day, is proposed to service the Spring Valley, Casa De Oro, Sweetwater, and Otay Community Planning Areas (CPAs); however, no other high-frequency regional transit services are proposed within the unincorporated area (outside the existing Buena Creek Sprinter Station).

The 2021 Regional Plan also identifies a series of Complete Corridors within the regional highway network where additional transit service and improvements are envisioned. Complete Corridors will be designed to give buses and other transit vehicles dedicated space on roads that are currently identified to have excess vehicular capacity. Complete Corridors will also offer transit vehicles a traffic signal system that gives them priority over other traffic, thus reducing travel times and improving service. These improvements should provide the opportunity to implement additional future high-frequency regional transit services (Rapid bus or Express bus) within the unincorporated area. The I-15 corridor between SR-78 and Riverside County is an opportunity area that could be a future candidate for a Complete Corridor in the unincorporated area.

- RTP Mobility Hubs

As outlined in the 2021 Regional Plan, Mobility Hubs are communities with a high concentration of people, destinations, and travel choices. Mobility Hubs span one, two, or even a few miles based on community characteristics. Mobility Hubs will be uniquely designed to fulfill a variety of travel needs while strengthening sense of place. A fully connected network of regional Mobility Hubs ensures seamless connections to major work, school, shopping, and leisure destinations using transit and Flexible Fleets, which are on-demand rideshare services.

Most of the Mobility Hub areas identified in the Draft RTP are located outside of the unincorporated area; however, there are proposed Mobility Hub locations that incorporate portions of the San Dieguito, North County Metro, Lakeside, and Otay CPAs.

- RTP Funding

The 2021 Regional Plan is intended to be implemented over the next 29 years (through 2050). The funding and improvement schedules within the plan are broken down into three different timeframes of 2025, 2035, and 2050. Over \$5 billion will be allocated toward the development of the regional Mobility Hub network that is planned throughout the region. In general, the timing of the proposed Mobility Hub improvements will be in conjunction with the Complete Corridor and Transit Leap improvements.

Based on discussions with SANDAG staff, the locations, features, and amenities within the individual Mobility Hub sites have not yet been defined. SANDAG plans to work with the member agencies to identify the transportation needs and opportunities within each Mobility Hub site. The 2021 Regional Plan also identifies \$837 million in future planning and capital grant opportunities that local jurisdictions can use to identify, plan, and implement transportation related infrastructure, programs, or land uses associated with the proposed Mobility Hubs, as well as smart growth and/or VMT reduction opportunities. An additional \$333 million in grant funding will be available for member agencies to develop, enhance review, process, and/or update their smart growth and VMT reducing policies.

- SANDAG Approval of Regional Transportation Plan

To refine and implement Mobility Hubs, the Final 2021 Regional Plan approved on December 10, 2021, by the SANDAG Board, included near-term actions to update local government grant programs, provide funds for transportation-related improvements, update Mobility Hub areas to

align with latest planning assumptions, and partner with jurisdictions on planning efforts that support sustainable communities in Mobility Hub areas and Transit Priority Areas.

As part of the County's outreach efforts, SANDAG included language in the Final Regional Plan to partner with the County to update and refine regional Mobility Hub areas as mobility projects and land use changes, such as the County's efforts related to VMT, are implemented, and periodically prepare an updated Mobility Hub map. The County will continue to work with SANDAG to collaborate on VMT Transit Opportunity Areas that include high-density land uses that align with Mobility Hub areas and associated grant opportunities. Implementation of high frequency transit services in the unincorporated area allows for those areas to be established as Transit Priority Areas, which are screened from VMT analysis. One option is to consider is programmatic environmental coverage for land development projects within VMT Transit Opportunity Areas while future transit investments are being planned and implemented.

- **Transit Opportunity Areas (TOA)**

Based on an evaluation of infill opportunities, higher density, as well as mixed-use development within the Village Areas, the following areas were identified by PDS to have the best opportunities to expand Mobility Hubs and transit within the unincorporated area:

- *San Dieguito East Village Area:* The San Dieguito East Village Area is located adjacent to the Next Gen Rapid Bus Line that is proposed along the I-15 corridor and has the highest potential to receive high frequency regional transit service within any unincorporated area.
- *Lakeside Village Area:* The Lakeside Village Area has one of the highest population densities in the unincorporated area, and a portion of the area is located within a proposed Mobility Hub.
- *Spring Valley & Valle De Oro Village Areas:* A future Next Gen Rapid Bus Line is proposed along the southeastern boundary of the Spring Valley & Valle De Oro Village Areas, and service population densities within both village areas are in the highest tier within the unincorporated area.
- *Sweetwater CPA:* A future Next Gen Rapid Bus Line will provide service through the middle of the Sweetwater CPA as well as the SR-54 Complete Corridor. Both facilities should provide ideal transit access to the Sweetwater CPA in the future.
- *Otay Village:* The Otay Village Area is located directly adjacent to a proposed Next Gen Rapid Bus Line and the SR-125 Complete Corridor, and the 2021 Draft Regional Plan also proposes a Mobility Hub which encompasses a portion of the Otay Village Area.
- *I-15 Corridor:* The 2021 Draft Regional Plan proposes that the I-15 corridor become a Complete Corridor, particularly within the northern portion of the unincorporated area.

Maps and additional information on these Transit Opportunity Areas can be viewed in *Attachment B – Potential Transit Expansion Opportunities within the Unincorporated County*.

Item 2 – Transit Opportunity Area (TOA) Options

Using the 2021 Regional Plan, the County can designate areas as TOAs, described above, as opportunity areas to expand transit services due to their proximity to Mobility Hubs, infill areas, and higher density land uses. CEQA requires an analysis of numerous environmental subject areas like biology, air quality, greenhouse gas emissions, and VMT. Sometimes a project is considered to have no impact on the environment for a particular subject, meaning it's screened out and does not need to prepare any analysis. This doesn't mean it is screened out for the other subject areas. For example, if a project site has already been developed and there are no biological resources on a site, the project would be screened out from doing biology studies. However, it might still need to be analyzed for transportation impacts. Discussed below are options to screen projects out from VMT analysis if located within a TOA.

If areas are screened out from VMT analysis, it would incentivize development within TOAs, which could support increased densities and the need for future transit service, which, if established, would further reduce VMT in these areas. However, because these areas do not currently have transit service and it is anticipated that projects in these areas could have significant VMT impacts, a programmatic environmental analysis would be recommended in order to disclose potential transportation impacts for these areas. Future projects would be able to use this environmental analysis as a CEQA streamlining mechanism and would not be required to prepare project specific VMT analyses. To accomplish this environmental coverage, an EIR for all the TOAs would be required and potentially a statement of overriding considerations would also need to be adopted if the VMT impacts within the TOAs cannot be mitigated to a less-than-significant level. As a result, the following options are provided on how the County can move forward with Transit Opportunity Areas:

Option 2-A: Programmatic Environmental Impact Report (EIR)

County staff prepare a programmatic EIR to analyze the VMT impacts from projects located within TOAs. An EIR would provide programmatic environmental coverage for future projects within TOAs, so no additional VMT analysis would be required by individual projects. A statement of overriding considerations may be required if the VMT impacts associated with development in the TOAs cannot be mitigated to a less-than-significant level within a certain timeframe. Additional analysis of land use changes, including potential density increases is covered below in items 6 and 12.

Option 2-B: Use the TOAs as a Reason for Adopting a Statement of Overriding Considerations on a Project-by-Project Basis (can be combined with Option A)

Until a programmatic EIR is certified, impacts from projects would continue to be analyzed on a case-by-case and there will still be discretion to approve or deny a project based on the merits of each individual project, but its location within a TOA can be a significant reason to apply overriding considerations. There is no additional cost associated with this option. Once the TOA boundaries are established, projects can use the maps on a case-by-case basis.

Opportunities for By-Right Development in VMT efficient areas (Item 4)

The County's 6th Cycle Housing Element (2021 – 2029) adopted by the Board on July 14, 2021 (1), includes Implementation Plan Item No. 3.1.1.B: By-Right Approval for Projects with 20 Percent Affordable Units. Pursuant to Assembly Bill 1397, the County is required by State law to amend its Zoning Ordinance to require by-right approval of housing developments on 6th Cycle Regional Housing Needs Allocation (RHNA) sites that have been relisted or “reused” (i.e., previously identified) in the 4th or 5th Cycle Housing Elements, if the developer agrees to include 20 percent of the units as affordable at less than 80 percent area median income (AMI) (i.e. total household income of less than \$97,000 for a family of four). The 6th Cycle Housing Element includes 44 relisted RHNA sites (representing 1,570 housing units) located within the communities of Fallbrook, Lakeside, North County Metro (Escondido and Buena Creek), Ramona, and County Islands (Lincoln Acres). All relisted RHNA sites are located within VMT efficient areas using the unincorporated average as directed by the Board on April 7, 2021 (1).

A by-right approval process means that the permit process is ministerial and not subject to environmental review, including VMT. Ministerial permits cost less and are processed quicker, making it easier to build housing. For example, a building permit is a by-right or ministerial process and involves compliance with the building code. If the project meets the building code, the permit is approved. To develop a by-right program, changes to the County code would be needed to allow certain permits to be by-right. The process of making changes to the County code to establish a by-right program would require environmental review itself. There are also limitations on the development of a by-right program. State law requires a subdivision map for the creation of any lots or condominiums, which is a discretionary process subject to CEQA. However, Site Plans for design review are not a State requirement and could be made ministerial through objective design standards like requiring a residential building to include at least two building materials like wood or stucco. Site Plans are typically required for apartment buildings and focus on architectural design of the building, parking, and landscaping.

At the July 14, 2021 hearing, the Board directed staff to explore the feasibility of expanding the By-Right program (Implementation Plan Item No. 3.1.1.B) to additional RHNA Sites not eligible for ministerial processing under AB 1397 (192 additional sites), as well as mixed-use and commercial sites, if the developer agrees to provide at least 20 percent affordable housing (at less than 80 percent AMI). Staff is currently conducting a feasibility analysis for an expanded by-right program to identify site criteria, such as environmental or site constraints like wetlands or sensitive or endangered species that would exclude a site from program eligibility. Options to expand the by-right program, including eligible areas and program options, will be presented to the Board for further direction in 2022, separate from Board direction provided regarding VMT.

The Board could further expand the scope of the potential by-right program and feasibility analysis to also include VMT efficient areas that meet the regional average. This would include an additional 2,467 acres and potentially 1,751 dwelling units that could be analyzed for eligibility under a by-right program (Figure 1 in Attachment B). The Board could also expand the scope further to include infill areas and TOAs as defined under items 1 and 2 (Figure 4 in Attachment A and Figure 7a in Attachment B). The infill area options could include up to approximately 13,502

acres and approximately 2,920 dwelling units that could be analyzed for eligibility under a by-right program.

The Board could also wait to develop a by-right program until after consideration of the Climate Action Plan (CAP) Update and Smart Growth Alternatives included in the CAP Supplemental EIR in Fall 2023, which may result in additional direction to consider changes to the County's General Plan land use map, or as part of broader consideration of land use changes through direction to consider options for a General Plan Update.

If directed now, the by-right program would only account for VMT efficient areas. It would not consider other factors that will be considered in the formulation of the Smart Growth Alternatives, or other potential land use changes to be analyzed in the CAP Update context, such as proximity to jobs, infrastructure, amenities, and future transit. If the Board selects a Smart Growth Alternative, or otherwise directs staff to consider comprehensive options to update the General Plan, a by-right program could be evaluated at the same time and account for any potential increases in density. If directed now, a by-right program would not account for future changes to the General Plan. Potential changes to the General Plan land use map are discussed below in more detail in items 6 and 12.

Item 4 - By-Right Process Options

The following options are provided related to the development of a by-right program for VMT efficient areas. A by-right development process for certain permit applications and/or require a minimum amount of affordable housing units to qualify for the program could be directed. The Board could also wait until consideration of the CAP Update and Smart Growth Alternatives, or provide other direction to consider options to update the General Plan, before directing the development of a by-right program.

Option 4-A: Study the Feasibility of a By-Right Program for VMT Efficient Areas

Under this option, staff would prepare an analysis of VMT efficient areas to identify any environmental or site constraints that would exclude sites from program eligibility. Staff would return to the Board with the findings of the analysis and present options for different by-right programs. The analysis would involve environmental studies and evaluation because it would analyze more than VMT, including biology, air quality, and greenhouse gas emissions, among others.

Option 4-B: Study the Feasibility of a By-Right Program for Infill Areas and Transit Opportunity Areas (can be combined with Option 4-A)

This option includes the addition of infill areas and transit opportunity areas into the feasibility study of a by-right development program. This option should be combined with Option 1-A, 1-B, or 2-A.

Option 4-C: Wait to Develop a By-Right Program until Consideration of the CAP Update and Smart Growth Alternatives (cannot be combined with Options 4-A or 4-B)

Under this option, the Board would wait until after consideration of the RHNA by-right program, or CAP Update and Smart Growth Alternatives, or other Board direction to consider

options to update the General Plan to direct any study of a by-right program. This option would not result in any additional costs at this time.

Opportunities for Changing Land Use Densities within VMT Efficient Areas and Development of Smart Growth Alternatives in the CAP Supplemental EIR (Items 6 and 12)

The Board directed staff explore land use densities within VMT efficient areas under item 6. Land use densities or the number of homes that are planned in the unincorporated area are established in the General Plan. Changes to land uses or densities in the General Plan require a General Plan Amendment, or if they involve a comprehensive change, a General Plan Update. The General Plan was last comprehensively updated in 2011. At the time the General Plan was adopted, VMT was not required to be analyzed under CEQA and was not used as a guiding principle in the development of the land uses or densities in the General Plan. As a result, new development is required to analyze VMT on a case-by-case basis, identify impacts and adopt mitigation measures to reduce those impacts like installing bike lanes and sidewalks, which reduce driving and vehicle trips, rather than relying on analysis contained in the General Plan EIR. Projects that cannot mitigate their VMT impacts can pursue an EIR and request a statement of overriding considerations.

Changes to land uses or densities in the General Plan require a comprehensive analysis that includes a number of different factors, including environmental constraints, infrastructure, and proximity to jobs and services, not just VMT. For example, an area may be VMT efficient based on its proximity to urban areas and transit but may have other constraints that limit development like biological resources, steep slopes, etc. As a result, evaluating changes to land uses or densities would be accomplished through a comprehensive analysis that factors in more than VMT efficiency.

Climate Action Plan (CAP) Update and Development of Smart Growth Alternatives (Item 12)

Staff is currently preparing a CAP Update and Supplemental EIR that is anticipated to be heard by the Board in late 2023. The Board must adopt the CAP Update and certify the Supplemental EIR as required by the Court of Appeal decision in *Golden Door Properties, LLC v. County of San Diego* (2020) 50 Cal.App.5th 467. As part of the CAP Update, staff is preparing alternatives that will be considered by the Board, which include policy changes, various combinations of CAP measures that achieve the GHG emissions targets, and consideration of Smart Growth Alternatives that are intended to significantly reduce VMT. Adoption of a Smart Growth Alternative is optional. If the Board adopts a Smart Growth Alternative, additional actions would be necessary during the CAP Update hearings and beyond to implement a Smart Growth Alternative and may include a General Plan Amendment to change land use densities or the adoption of overlays to indicate where growth is preferred to occur.

During the CAP Update hearings, the Board would be asked to identify a community, or communities within which to focus smart growth programs and incentives. The selection of Smart Growth Alternatives requires the identification of areas within the unincorporated area that could be considered “smart” places for new development for reasons including, but not limited to, compact, efficient, and environmentally friendly design that is achievable; proximity to job

centers, services, amenities and infrastructure (e.g., roads, water, sewer); and/or presence of existing or planned future transit infrastructure (e.g., sidewalks, bike lanes, bus service, new transit service). Specifically, smart growth planning in the unincorporated area could consider constraints like fire hazard areas, availability of water, and consistency with the SANDAG Regional Plan Mobility Hubs. An overlay zone would identify those properties that the Board identifies as smart growth, and that would be eligible for future programs or process improvements that would incentivize residential, commercial, and mixed-use growth within the smart growth boundary.

Beyond the overlays, the Board could choose to consider increases in residential density, known as "up-planning," which may require changes to the General Plan land use map, in order to achieve desired development outcomes. Up-planning is the process of increasing densities to allow for future housing. Similarly, subsequent changes to the County's Zoning Ordinance may be required to establish a regulatory framework that can achieve alignment across the General Plan land use map and County Zoning Ordinance, which regulates development. Any changes to the General Plan land use map or Zoning Ordinance would require additional environmental analysis prior to implementation.

In general, the greater the extent of changes to the land use map required (i.e., the larger the geographic region), the longer timeframe, more extensive the environmental analysis, more community outreach, and more complex the planning process that would be required. If the Board were to select a small number of communities in which to focus smart growth (e.g., five), changes to the land use map would be much more focused and may require limited up-planning or other changes to the land use map to support the desired development outcomes such as mixed-uses and additional opportunities for new housing types (e.g., smaller product types such as townhomes and condominiums) in areas located near existing and future transit infrastructure. While changes to densities would require environmental analysis after the CAP Supplemental EIR, because the scope of the analysis would be limited to a smaller portion of the unincorporated area, a more detailed analysis could be done, providing greater CEQA streamlining and ministerial permit opportunities afterwards. Timeframes for this type of focused update to the General Plan land use map within the smart growth boundary could likely be accomplished within three years from the time of Board direction due to the relatively small geographic area that would be considered.

If the Board decided to undertake a broader General Plan Update with comprehensive land use map changes including up-planning and down-planning across the entire unincorporated area, a similar process would occur as described above, but timeframes, outreach, and subsequent planning actions would be more extensive due to the application across the unincorporated area. The process would also include an evaluation of existing conditions, and coordination with community residents and businesses to determine how to guide development in the future and what desired development outcomes to prioritize. The subsequent planning implementation actions to guide new development would take more time and require more staff and resources. Additionally, changes to the land use map of this extent would likely require changes to other aspects of the General Plan, including the Mobility and Conservation and Open Space Elements, in order to bring those elements into consistency. A broadly scoped General Plan land use map update would also require environmental analysis of up-planning and down-planning throughout the entire unincorporated area, which would require a new programmatic analysis of all land use changes

and the potential for environmental impacts from those changes. Because the focus would be at the entire unincorporated area scale, the analysis is more high-level and would not afford the same level of future CEQA streamlining for new development as in a more focused update. Timeframes for this type of General Plan Update would likely take approximately four to five years from the time of Board direction.

While the Board can direct studying changes to the General Plan solely within VMT efficient areas, the Smart Growth Alternatives will provide an opportunity for the Board to consider comprehensive changes that consider more than VMT efficiency. To accomplish this, the Board could direct staff to direct studying changes to the General Plan during consideration of the CAP Update and potential adoption of a Smart Growth Alternative or a part of a separate effort. If the Board directs staff to study changes to the General Plan within VMT efficient areas, staff will evaluate the areas outlined in the options below to evaluate potential constraints and return with potential land use options. The options will likely include a General Plan Amendment to increase densities within these VMT areas and may not align with the Smart Growth Alternatives. The two may not align because smart growth considers more factors than VMT efficiency, including environmental constraints, creating a mix of land uses and creating walkable communities, among others.

Item 6 - Land Use Options

As identified in Table 1, under the current General Plan, there are a total of 1,751 housing units planned within VMT efficient areas using a regional VMT average. As part of the analysis for identifying infill areas and TOAs, staff identified additional areas that could be screened out from VMT analysis. The following options are options on how the County can move forward with changes to land use densities within VMT efficient areas, infill areas, and TOAs:

Option 6-A: Develop Options to Increase Density within VMT Efficient Areas

Under this option, staff would conduct additional analysis and develop potential options to increase densities within VMT efficient areas based on a Regional VMT average. The analysis would include factors such as services (sewer, water, fire), environmental and physical constraints (steep slopes, biology, fire hazards), and infrastructure (roads). Staff would return to the Board and present the potential options for density changes within VMT efficient areas. During consideration of the Climate Action Plan (CAP) Update and Supplemental EIR, this option could be directed if the Board chooses to include these areas as Smart Growth.

Option 6-B: Develop Options to Increase Density within Infill and Transit Opportunity Areas (TOAs) (could be combined with Option 6-A)

Under this option, staff would conduct additional analysis of potential density changes within infill areas and TOAs. The analysis would include the same factors as above and would be in addition to the potential options developed for VMT efficient areas. During consideration of the CAP Update and Supplemental EIR, this option could be directed if the Board chooses to adopt a Smart Growth Alternative. This option should be combined with Option 1-A, 1-B, or 2-A.

Option 6-C: Wait to Develop Options to Increase Density until Consideration of the CAP Update and Smart Growth Alternatives (cannot be combined with Options 6-A or 6-B)

Under this option, the Board would wait until after consideration of the CAP and Smart Growth Alternatives to direct any study of density increases. This option would not result in any additional costs at this time.

Option 6-D: Direct Staff to Return with Options for a Sustainable Land Use Framework

Under this option, the Board would direct staff to prepare options for Board consideration for further direction that would initiate the development of a sustainable land use framework for a General Plan Update. Options would include at a minimum the following: 1) targeted up planning through development of an overlay that prioritizes new residential, commercial, and mixed-use investment in areas identified as VMT Efficient (Regional Average), infill areas (and any selected buffer), and Transit Opportunity Areas in advance of consideration as part of the CAP SEIR, and 2) comprehensive up planning and downzoning across the entire unincorporated area. The Board could also direct additional options for staff evaluation.

B. Opportunities for VMT Mitigation (Item 3)

The changes to the CEQA guidelines associated with SB 743 went into effect on July 1, 2020. Several jurisdictions throughout the state are currently in the process of developing VMT mitigation programs to allow new development to mitigate their VMT impacts. Presently, only one jurisdiction within the region, the City of San Diego, has adopted and implemented a VMT Mitigation Program.

The City of San Diego adopted their Active Transportation In-Lieu Fee Program (ATILFP) in November 2020. The City collects fees from new development projects with a VMT related impact and invests that revenue into VMT reducing infrastructure (bike facilities, sidewalks and paths, transit service, and micro-mobility such as bike-share and scooter sharing) in the areas of the City that have the highest densities (urban areas) and where the infrastructure will be the most effective. This allows new development located outside the most urban areas to mitigate their VMT related impacts through multi-modal infrastructure implemented within the most effective areas in the City. Therefore, the program results in lower costs to mitigate the impacts of new development, as well as additional investment in multi-model infrastructure where it is the most needed. The program includes a fee of \$1,400 per mile to mitigate their impact. For example, if a project needed to reduce VMT by 10 miles, the cost would be \$14,000 (10 miles x \$1,400).

The cities of Chula Vista, Encinitas and San Marcos are in the process of developing VMT Mitigation Programs; however, none have adopted a fee program yet. Additionally, other agencies around the state are investigating different VMT Mitigation Programs, including Los Angeles Department of Transportation (LADOT) and Los Angeles County Metropolitan Transportation (LA Metro), Western Riverside Council of Governments (WRCOG), Metropolitan Transportation Commission (MTC) in the San Francisco Bay Area, and Contra Costa County. These jurisdictions have not released a draft program.

- VMT Mitigation in the Unincorporated Area

The cost to reduce one mile of VMT within the County of San Diego is estimated to be between \$10,000 and \$19,000 per mile. The details of this analysis are provided in Attachment C – *Programmatic VMT Mitigation Alternatives with Hypothetical Costs*. VMT reducing infrastructure like bike lanes and sidewalks are more effective in high density urban areas near transit services. Multi-modal infrastructure implemented in areas such as Downtown San Diego, North Park, and Uptown areas in the city of San Diego would reduce a greater amount of VMT than the same infrastructure would in suburban areas such as Lakeside, Spring Valley, and Fallbrook. Therefore, even though the cost to implement VMT reducing infrastructure is similar within both area types, the infrastructure located within the urban areas may be 10 times more effective at reducing VMT in an urban area. As such, the cost to reduce VMT is substantially less in more urban areas.

Item 3 – VMT Mitigation Program Options

The following options are provided for the Board’s consideration on how the County can move forward in implementing a VMT Mitigation Program.

Option 3-A: Work with SANDAG to Develop a Regional VMT Mitigation Program

The County could work with SANDAG to develop a regional VMT Mitigation Program that will help to fund the multi-modal infrastructure identified within the 2021 Draft Regional Plan and reduce VMT throughout the region rather than only in the unincorporated area. A regional VMT mitigation program will allow new development within the unincorporated area of the county to get VMT credit from helping build regional infrastructure such as new transit lines and services as well as multi-modal infrastructure that is being implemented within highly VMT efficient areas. Additionally, the 2021 Draft Regional Plan identified that implementation would result in a 14.1 percent reduction in the region’s VMT per capita by 2050. This in conjunction with other localized improvements, such as transportation demand management (TDM), may be sufficient to reduce VMT related impacts within the unincorporated area. TDM includes strategies intended to provide commuters with additional choices like ridesharing to decrease the overall number of vehicle trips.

Additionally, if the County works with SANDAG in the development of a Regional VMT Mitigation Program, it can help to develop the process in which regional multi-modal infrastructure is prioritized and implemented. This may help to ensure that additional transit services and other regional VMT reducing infrastructure included in the program, will be implemented within the unincorporated area. Development of a Regional VMT Mitigation Program would not preclude the County from utilizing a portion of the VMT mitigation fees collected to reduce VMT within the unincorporated area or establishing a TDM Mitigation Program and could work in unison. By establishing a VMT Mitigation program that does both, projects could get higher VMT reductions by including the region as well as local VMT reductions in the unincorporated area.

Finally, the County and SANDAG could pursue Caltrans Partnership Grants, which provide funding for the development and implementation of a Regional VMT Mitigation Program as well as the environmental analysis. County and SANDAG staff have discussed this opportunity and have identified the 2022/2023 grant cycle as a potential timeframe to pursue this option.

This approach would likely require the preparation of an EIR for the Regional VMT Mitigation Program. If VMT impacts cannot be fully mitigated through the program, a statement of overriding considerations would be required.

Option 3-B: Work with the City of San Diego and/or Other Local Jurisdictions to Develop a Joint Program or Join an Existing Program like the City Program

As noted, the City of San Diego has adopted a VMT Mitigation Program, with a fee rate of \$1,400 per mile. This is substantially lower than the projected cost of \$10,000 and \$19,000 per VMT that is anticipated within the unincorporated area. The City of San Diego has a higher population and network capacity within its urban areas to accommodate additional VMT reducing infrastructure. As an alternative to a regional program with SANDAG, the County could work with the City of San Diego to either expand its program into the unincorporated area or develop a hybrid program where new development in the unincorporated area could mitigate a portion of their VMT related impacts in the unincorporated area and mitigate the remaining portion within the City of San Diego. This approach would allow new development within the unincorporated area to mitigate VMT impacts.

Staff could partner with the City of San Diego to pursue a Caltrans Sustainability Grant. The grant could fund the development and implementation of the program. During the outreach process for the City's ATILFP, County and City staff had preliminary discussions about the potential of a joint program or allowing new development within the unincorporated area to participate in the ATLIFP, and there was initial interest from City staff in the concept.

This approach will likely require the preparation of an EIR because the County may not be able to ensure that the funded VMT mitigation projects are completed prior to or concurrently with a development project because they are located outside of our jurisdiction, and the City may ultimately decide where and how the funds are spent. If VMT impacts cannot be fully mitigated through the program, a statement of overriding considerations would be required.

Option 3-C: Develop a County Specific VMT Mitigation Program

Under this option, the County would develop its own localized VMT Mitigation Program. The cost to fully mitigate VMT impacts within the unincorporated area may not be financially feasible for most new development projects, and the County may not have the VMT reducing capacity to fully mitigate VMT related impacts associated with all new development within the unincorporated area. As such, under this approach the County would prepare an EIR to disclose the VMT impacts associated with new development, identify the VMT Mitigation Program as partial mitigation for the impacts, disclose that the mitigation would not be sufficient to fully mitigate all VMT related impacts, and therefore, VMT related impacts associated with new development would be significant and unavoidable. A statement of overriding considerations would be required to approve these projects.

The County could pursue a Caltrans Sustainable Communities Grant to assist with the funding for the development of the fee program and the EIR. However, because it is anticipated that the County would not be able to fully mitigate its VMT related impacts through the program, it may not be as competitive for grant funding as other efforts.

C. Opportunities to Prepare a Revised Transportation Study Guide (Items 7-11)

The Board can direct staff to prepare a revised Transportation Study Guide (TSG) using a regional geography to establish VMT thresholds and return to the Board for adoption. If directed, staff would update the TSG based on a regional average, place the TSG out for public review and comment, and return to the Board for consideration and adoption.

The Board also directed staff to explore a phased-in timeline for adopting a Revised TSG, which would include adoption of a revised guide until the environmental review is completed for any other items (infill areas, transit opportunity areas, and VMT mitigation programs). Once the environmental review is completed, staff would bring forward future updates to the TSG for the additional items. In the interim, the Board could allow projects located within infill areas or transit opportunity areas to proceed with an EIR and request a statement of overriding considerations for VMT using its location within an infill area or TOA as the rationale for the overriding considerations (unless the Board also adopts screening criteria for these areas as discussed above).

As part of the adoption of a revised TSG, staff have identified options for screening projects out of VMT analysis based on State guidance from OPR, as well as staff's additional analysis related to affordable housing projects. These options include adopting the 110 average daily trip (ADT) screening criteria recommended by OPR for small projects, which was included in the original TSG. Although this was included in the original TSG, there were concerns raised by environmental stakeholders regarding the 110 ADT screening criteria and that it would allow the majority of proposed development projects to move forward without VMT analysis. The 110 ADT equates to approximately 11 single family homes. Staff analyzed the potential impact of adopting the 110 ADT screening criteria recommended by OPR and determined that it could potentially allow approximately 6 percent of the overall number of homes allowed under the General Plan to move forward without VMT analysis. This estimate is based on the overall number of homes approved within the unincorporated area (7,806) and the number of homes approved through projects that included 11 or fewer homes (455 homes), which would have been screened out of VMT analysis. This equates to approximately 6 percent of the overall number of homes approved. If that 6 percent is applied to the remaining capacity within the unincorporated area (58,092 homes), staff estimates a total of 3,199 homes would be screened out from VMT if the small project screening criteria is retained (110 ADT). This does not factor in the potential for an increase in projects with less than 11 homes due to their ability to be screened out from VMT analysis. Staff would anticipate an increase in those types of projects, but it is difficult to estimate the number, if any.

- **Affordable Housing (Items 5 and 13)**

The OPR Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) offers recommendations to screen affordable housing, indicating that it is presumed to have a less than significant transportation VMT impact for a 100 percent affordable residential development (or the residential component of a mixed-use development). Lead agencies may develop their own presumption of a less than significant impact for residential projects (or residential portions of mixed-use projects) containing a particular amount of affordable housing, based on local circumstances and evidence.

County staff and the consultant team evaluated affordable housing trip generation using available data sources and County specific data collected at three affordable housing developments in Fallbrook and Spring Valley to evaluate whether affordable housing in the unincorporated area generates less trips than market-rate housing. If affordable housing generates less traffic than market rate housing, then it also generates less VMT than market rate units in the same location.

Data review was conducted looking at various studies, literature, and data sources used by other jurisdictions and professional organizations, including the Institute of Traffic Engineers (ITE) most recent Trip Generation Manual, to understand trip generation characteristics for affordable housing projects. A comprehensive comparison of daily trip generation rates across the various data sources was compared to surveys and data collected for affordable housing projects located within the unincorporated area. The review of the data suggests that the ITE Trip Generation rates for affordable housing reasonably represent the data collected for the developments in the unincorporated area. Therefore, the ITE Trip Generation rates were used to generally represent 100 percent affordable housing projects in the unincorporated area.

Staff then used these trip rates to evaluate screening options for VMT. The daily trip generation rates from the ITE Trip Generation Manual for market rate multi-family housing and affordable housing were used to develop a ratio of affordable housing that would continue to generate less trips than a market rate multi-family housing project. This approach was used to expand the screening beyond 100 percent affordable projects in infill areas.

Analyzing this blend of affordable and market rate housing and applying VMT trip lengths consistent with 15 percent below the regional average or within the identified infill areas, it was determined projects that are located in an infill area that are at least 52 percent affordable will result in a “blended” market rate/affordable trip generation rate that is 15 percent below a typical 100 percent market rate multi-family development’s daily trip generation. This equates to projects providing at least 52 percent affordable housing in infill areas to be screened out of VMT.

- In-Process Projects

As of December 2021, PDS is processing 30 residential projects that include a total of 1,507 housing units that are subject to VMT analysis. None of the 30 projects are located within VMT efficient areas based on a regional average. Four projects are located within infill areas that include 134 housing units and approximately nine projects with a total of 334 housing units within TOAs. There are approximately 13 projects with a total of 1,445 housing units that have significant unavoidable impacts from VMT that will require a statement of overriding considerations until such time as a VMT mitigation program is available. One project is a General Plan Amendment application in the North Mountain Subregional Plan area that makes up approximately 47% of the overall number of units that have significant unavoidable impacts from VMT.

Of the 30 residential projects in process, 17 projects are relying on the adopted small project threshold of 110 ADT, which include a total of 62 housing units. Not including the small project screening criteria in a revised TSG will impact the 17 in-process projects that are currently relying on the 110 ADT.

- Exceptions for Other Types of Projects (agricultural, renewable energy, wineries, etc.)

Residential and Employment projects are not the only projects subject to VMT analysis. Any project that is subject to CEQA is subject to VMT and is required to analyze potential transportation impacts. VMT does not recognize that certain types of land development projects are location-specific like agriculture, and therefore not typically located in VMT efficient areas. As a result, these project types primarily rely on the small project screening criteria of 110 ADT to move forward. This can become challenging for a variety of unique project types that are common in rural locations, such as farms, agricultural tourism, renewable energy, wineries, regional parks, campgrounds, mining operations, special event facilities, and cemeteries. OPR included an option to allow projects to conduct a qualitative analysis, using factors such as availability of transit and proximity to other destinations. Projects can continue to use a qualitative approach as well as small project screening criteria (110 ADT) as well as location-based screening if directed by the Board (infill areas, VMT efficient areas, and TOAs).

- State Guidance and Other Jurisdictions

Staff continue to monitor and track State guidance related to VMT and are currently participating in a statewide working group with OPR, Caltrans, and other agencies and stakeholder groups on SB 743 implementation. The purpose of this SB 743 Implementation Working Group is to provide stakeholders from the public, private, and non-governmental sectors a collaborative opportunity to contribute to the advancement of the State's climate, health and mobility goals through successful implementation of SB 743.

County staff are also engaged with SANDAG and have regularly scheduled monthly meetings to discuss SANDAG's Regional Plan and areas of alignment with County policies, programs, and plans. Staff have prepared a table based on best practices research of all 58 counties in the state and how they are implementing SB 743, as well as all 18 jurisdictions in San Diego County. Staff will continue to monitor and update our best practices research related to implementation of SB 743 to ensure that our approach aligns with the State goals of reducing VMT and greenhouse gas emissions. Attachment E - *Benchmarking Matrix*.

- Local Mobility Analysis (Level of Service)

SB 743 preserves local government authority to make planning decisions to identify circulation and access deficiencies that may require improvements to ensure road users' safety and to reduce traffic congestion. Local General Plan policies and the application of such policies related to transportation and circulation remain unchanged by SB 743, and SB 743 allows local jurisdictions to use Level of Service (LOS) for non-CEQA planning purposes to measure road users' delay and road congestion.

The County's 2011 General Plan Update included a revised Mobility Element. The Mobility Element contains County goals and policies that address safe and efficient traffic operations, as well as maintenance and management of the transportation network.

While LOS can no longer be used as a basis for determining transportation impacts under CEQA, the County may retain LOS for local traffic analysis as part of a comprehensive approach for both CEQA VMT analysis and Local Mobility Analysis (LMA) of discretionary/entitlement projects.

An LMA is used to ensure orderly development, public safety, adequate infrastructure, and consistency with Public Road Standards. The County can still require LOS analysis and condition project improvements to accommodate project traffic based on the County's local government authority to make planning decisions and implement General Plan policies and goals.

The intent of the LMA is to provide a balanced approach, considering the objectives of VMT, but also addressing local circulation needs and safety. The LMA relies on road operations and safety, complete streets, access management, and active transportation when determining road improvements. The LMA represents a scaled-back version of the previous LOS analysis that was required for development projects prior to VMT.

- **Traffic Safety - Local Road Safety Plan**

Safety remains a CEQA-level significant traffic impact criteria that all traffic generating projects must continue to address in their environmental analysis. Potential traffic safety impacts related to walking and biking are often the primary concern for communities and neighboring residents when evaluating proposed development projects. The County is committed to improving the transportation system to enhance the safety of all road users. As part of this effort, a Local Roadway Safety Plan (LRSP) has been developed by the Department of Public Works. The LRSP provides a framework for analyzing, identifying, and prioritizing road safety improvements to reduce severe injury and fatal collisions. The LMA also provides a mechanism to implement and incorporate LRSP into the discretionary permit process and help ensure that private development projects address their potential road users' safety and traffic operations impacts to local roads. The draft LRSP will go to the Board for consideration in mid-2022.

The California Department of Transportation (Caltrans) recently provided additional guidance as part of an update to their Transportation Impact Study Guide (TISG) for requesting transportation impact analysis that is not based on VMT. The guidance includes a simplified safety analysis that focuses on pedestrian and bike safety as well as road and driveway access. Caltrans recommends in their *Traffic Safety Bulletin: Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance* for local agencies to use similar approaches, specifically Local Roadway Safety Plans (LRSPs), Systemic Safety Analysis Reports (SSARs), and Vision Zero plans, as models for safety analysis of the local transportation network. As part of the best practices research, most jurisdictions around the state continue to utilize Level of Service (LOS) or safety for traffic analysis outside of CEQA.

Items 7 through 11 – Revised TSG

The following options are provided on how the County can move forward with adoption of a revised TSG for VMT. The Board could direct preparation of a revised TSG and provide direction on future items to include in the TSG once environmental review is completed. The Board could also wait to adopt a revised TSG after environmental review is completed, and projects would continue to be evaluated on a case-by-case basis until a revised TSG is adopted. Options D & E regarding a LMA will require a General Plan Amendment to the Mobility Element to remove Level of Service (LOS), as it is identified as one of the County goals and policies that addresses efficient traffic operations as well as maintenance and management of the transportation network.

Option 7-A: Prepare a Revised TSG using a Regional Geography

Staff would prepare a revised TSG using a regional average, advertise the revised TSG for public review, then return to the Board for consideration and adoption. This option would include preparation of a revised TSG based on a regional average, advertise it for public review, conduct outreach and return to the Board for consideration and adoption.

Option 7-B: Adopt the 110 ADT Small Project Screening Criteria (can be combined with Option 7-A)

Staff would include the OPR recommended small project screening criteria of 110 ADT. This would allow projects that include 11 homes or fewer to move forward without VMT analysis.

Options 7-C: Adopt OPR Recommendation to Screen Out Projects with 100 Percent Affordable Housing

Adopt OPR screening language and allow projects with 100 percent affordable housing projects to be screened out from VMT analysis, regardless of their location. This option was included in the previous TSG.

Option 7-D: Adopt Additional Screening for Projects with at least 52 Percent Affordable Housing in Infill Areas (can be combined with Option 7-C)

Allow projects that have at least 52 percent affordable housing in infill areas to be screened out based on the evidence prepared in Attachment A - Technical Memorandum, Infill Opportunity Areas in unincorporated San Diego County. This option would not allow projects with less than 100 percent affordable housing to be screened out from VMT analysis if they are located outside of infill areas. If Option 1-A is chosen, it will supersede this option and allow projects to move forward within infill areas without VMT analysis and affordable housing.

Option 7-E: Require an LMA (cannot be combined with Option 7-F or 7-E)

Require an LMA for discretionary projects. The LMA would be used to require projects to make improvements to local roads and intersections based on a project's traffic contribution.

Option 7-F: Require an LMA for Safety Only (cannot be combined with Option 7-E or 7-G)

Remove LOS from the LMA as a metric for analyzing traffic but continue to perform safety analysis. This option would require an amendment to the General Plan to revise a policy in the General Plan that requires projects to analyze traffic congestion based on LOS. The General Plan Amendment could be done along with a Programmatic EIR if directed under the other options.

Option 7-G: Do not Require an LMA Analysis (cannot be combined with Option 7-E or 7-F)

No longer conduct any traffic analysis other than VMT. Under this option, staff would still evaluate potential safety issues and require that projects address them on a project-by-project basis, but the County would not have an LMA Analysis. Without an LMA analysis, projects would no longer provide improvements to local roads based on the amount of traffic added.

This option would also require a General Plan Amendment, which could be done along with a Programmatic EIR if directed under the other options.

Conclusion

The information and potential options in this report are provided to the Planning Commission and the public to facilitate a workshop on VMT and the 13 items directed by the Board. The feedback and input received from the Planning Commission and stakeholders during the workshop will assist with finalizing the options and inform the staff recommendations to the Board, which are still being developed. The final options and staff recommendations will be presented to the Board on January 26, 2022. The potential options are included in Attachment A for reference during the workshop along with the technical memorandums and OPR guidance.

Attachment A: Potential Options to Implement Vehicles Miles Traveled Analysis During the Environmental Review in the Unincorporated Area

Attachment B: OPR Technical Advisory on Evaluating Transportation Impacts in CEQA

Attachment C: Infill Development in San Diego County Technical Memorandum

Attachment D: Transit Expansion Memorandum

Attachment E: VMT Mitigation Program Memorandum

Attachment F: Affordable Housing Memorandum

**Attachment A – Potential Options to Implement
Vehicles Miles Traveled Analysis During the
Environmental Review in the Unincorporated Area**

Attachment A
Potential Options to Implement Vehicles Miles Traveled Analysis During the Environmental Review in the Unincorporated Area

January 7, 2022

Item 1 – Infill Area Options:

Using criteria to define and map infill areas provides the geographic location of existing urban areas in the unincorporated area. However, because most of these defined infill areas are not located within VMT efficient areas when applying a regional geography using the SANDAG region, the following options are provided on how the County could move forward with screening out future development from VMT analysis within infill areas:

Option 1-A: New VMT Screening Criteria for Infill Areas

Establish new screening criteria to allow projects within one of the above infill area option locations to move forward without VMT analysis. The substantial evidence to support the infill areas would be prepared as part of a new transportation study guide (TSG) (Option 7-A) or a separate VMT screening threshold based on the information provided in Attachment A, which includes the research and analysis conducted to define and map infill areas within the unincorporated area. The new TSG (Option 7-A) or VMT screening threshold would require a 30-day public review period prior to consideration and adoption.

A specific concern raised in the previous VMT litigation was that an environmental impact report (EIR) should have been prepared with the preparation of the VMT guidelines, including any associated screening criteria. Environmental review is not required when a local jurisdiction adopts guidelines for CEQA review, including setting thresholds to determine if a project has a significant environmental impact, but the thresholds must be supported by substantial evidence (CEQA Guidelines § 15064.7(b)). As a result, the Board can adopt the infill areas without environmental analysis and screen out projects from VMT analysis, however this action could again be challenged. Another option is to include the infill areas in a programmatic EIR that is required for other options included in this report.

If the Board would like a programmatic Environmental Impact Report (EIR) to be prepared, Option 1-B should be adopted in lieu of Option 1-A to address concerns related to environmental review for projects outside of VMT efficient areas.

Option 1-B: Programmatic Environmental Impact Report (EIR)

Prepare a programmatic EIR to analyze the VMT impacts from projects located within infill areas. Establishing a new threshold does not require environmental analysis under CEQA as described under Option A. However, review of the thresholds could be combined with other VMT efforts that could require environmental review. An EIR would provide environmental coverage for future projects within infill areas, so no additional VMT analysis would be required by private applicants for each individual project. Therefore, preparing an EIR could be prudent; however, even with an EIR, there is the possibility that the EIR may require a statement of overriding considerations to certify the EIR and adopt the infill screening threshold. A statement of overriding considerations is only used when a project has environmental impacts that cannot be mitigated. A statement of overriding considerations allows a decision-maker to approve a project considering the unavoidable environmental effects because of the potential economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits. In this case, the use of an infill

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screening threshold would support other Board directed efforts such as building new and affordable housing in areas located near employment, services, and future transit. These reasons and others could be used to support a statement of overriding considerations.

Option 1-C: Use the Infill Area Maps as a Reason for Adopting a Statement of Overriding Considerations on a Project-by-Project Basis (can be combined with Option 1-B above)

Until a programmatic EIR is certified, the status quo will continue, and individual projects will be considered on a case-by-case basis. Development can be encouraged within infill areas to balance the benefits of locating projects in these areas against the significant unavoidable VMT impacts by adopting a statement of overriding considerations for a project. The Board will still have discretion to approve or deny a project based on the merits of each individual project, but its location within an infill area can be a significant consideration.

Additional considerations that were analyzed in evaluating an infill definition included high and very high fire hazard areas. In most cases, development in the wildland urban interface is not likely to be considered infill as it is likely to be less dense. A map showing the fire hazard areas in relation to these infill areas can also be found in Attachment A. In total, approximately 3,278 acres of the infill area (13,502 acres) is within high or very high fire hazard zone and includes approximately 614 homes out of the 2,920 planned in the General Plan. The very high fire hazard zone includes 1,961 acres and 411 planned housing units and the high fire hazard zone includes 1,317 acres and 203 planned housing units. As an option, one or both areas could be removed from the infill areas.

Item 2 – Transit Opportunity Area (TOA) Options

Using the 2021 Regional Plan, the County can designate areas as TOAs, described above, as opportunity areas to expand transit services due to their proximity to Mobility Hubs, infill areas, and higher density land uses. CEQA requires an analysis of numerous environmental subject areas like biology, air quality, greenhouse gas emissions, and VMT. Sometimes a project is considered to have no impact on the environment for a particular subject, meaning it's screened out and does not need to prepare any analysis. This doesn't mean it is screened out for the other subject areas. For example, if a project site has already been developed and there are no biological resources on a site, the project would be screened out from doing biology studies. However, it might still need to be analyzed for transportation impacts. Discussed below are options to screen projects out from VMT analysis if located within a TOA.

If areas are screened out from VMT analysis, it would incentivize development within TOAs, which could support increased densities and the need for future transit service, which, if established, would further reduce VMT in these areas. However, because these areas do not currently have transit service and it is anticipated that projects in these areas could have significant VMT impacts, a programmatic environmental analysis would be recommended in order to disclose potential transportation impacts for these areas. Future projects would be able to use this environmental analysis as a CEQA streamlining mechanism and would not be required to prepare project specific VMT analyses. To accomplish this environmental coverage, an EIR for all the

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TOAs would be required and potentially a statement of overriding considerations would also need to be adopted if the VMT impacts within the TOAs cannot be mitigated to a less-than-significant level. As a result, the following options are provided on how the County can move forward with Transit Opportunity Areas:

Option 2-A: Programmatic Environmental Impact Report (EIR)

County staff prepare a programmatic EIR to analyze the VMT impacts from projects located within TOAs. An EIR would provide programmatic environmental coverage for future projects within TOAs, so no additional VMT analysis would be required by individual projects. A statement of overriding considerations may be required if the VMT impacts associated with development in the TOAs cannot be mitigated to a less-than-significant level within a certain timeframe. Additional analysis of land use changes, including potential density increases is covered below in items 6 and 12.

Option 2-B: Use the TOAs as a Reason for Adopting a Statement of Overriding Considerations on a Project-by-Project Basis (can be combined with Option A)

Until a programmatic EIR is certified, impacts from projects would continue to be analyzed on a case-by-case and there will still be discretion to approve or deny a project based on the merits of each individual project, but its location within a TOA can be a significant reason to apply overriding considerations. There is no additional cost associated with this option. Once the TOA boundaries are established, projects can use the maps on a case-by-case basis.

Item 4 - By-Right Process Options

The following options are provided related to the development of a by-right program for VMT efficient areas. A by-right development process for certain permit applications and/or require a minimum amount of affordable housing units to qualify for the program could be directed. The Board could also wait until consideration of the CAP Update and Smart Growth Alternatives or provide other direction to consider options to update the General Plan, before directing the development of a by-right program.

Option 4-A: Study the Feasibility of a By-Right Program for VMT Efficient Areas

Under this option, staff would prepare an analysis of VMT efficient areas to identify any environmental or site constraints that would exclude sites from program eligibility. Staff would return to the Board with the findings of the analysis and present options for different by-right programs. The analysis would involve environmental studies and evaluation because it would analyze more than VMT, including biology, air quality, and greenhouse gas emissions, among others.

Option 4-B: Study the Feasibility of a By-Right Program for Infill Areas and Transit Opportunity Areas (can be combined with Option 4-A)

This option includes the addition of infill areas and transit opportunity areas into the feasibility study of a by-right development program. This option should be combined with Option 1-A, 1-B, or 2-A.

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Option 4-C: Wait to Develop a By-Right Program until Consideration of the CAP Update and Smart Growth Alternatives (cannot be combined with Options 4-A or 4-B)

Under this option, the Board would wait until after consideration of the RHNA by-right program, or CAP Update and Smart Growth Alternatives, or other Board direction to consider options to update the General Plan to direct any study of a by-right program. This option would not result in any additional costs at this time.

Item 6 - Land Use Options

As identified in Table 1, under the current General Plan, there are a total of 1,751 housing units planned within VMT efficient areas using a regional VMT average. As part of the analysis for identifying infill areas and TOAs, staff identified additional areas that could be screened out from VMT analysis. The following options are options on how the County can move forward with changes to land use densities within VMT efficient areas, infill areas, and TOAs:

Option 6-A: Develop Options to Increase Density within VMT Efficient Areas

Under this option, staff would conduct additional analysis and develop potential options to increase densities within VMT efficient areas based on a Regional VMT average. The analysis would include factors such as services (sewer, water, fire), environmental and physical constraints (steep slopes, biology, fire hazards), and infrastructure (roads). Staff would return to the Board and present the potential options for density changes within VMT efficient areas. During consideration of the Climate Action Plan (CAP) Update and Supplemental EIR, this option could be directed if the Board chooses to include these areas as Smart Growth.

Option 6-B: Develop Options to Increase Density within Infill and Transit Opportunity Areas (TOAs) (could be combined with Option 6-A)

Under this option, staff would conduct additional analysis of potential density changes within infill areas and TOAs. The analysis would include the same factors as above and would be in addition to the potential options developed for VMT efficient areas. During consideration of the CAP Update and Supplemental EIR, this option could be directed if the Board chooses to adopt a Smart Growth Alternative. This option should be combined with Option 1-A, 1-B, or 2-A.

Option 6-C: Wait to Develop Options to Increase Density until Consideration of the CAP Update and Smart Growth Alternatives (cannot be combined with Options 6-A or 6-B)

Under this option, the Board would wait until after consideration of the CAP and Smart Growth Alternatives to direct any study of density increases. This option would not result in any additional costs at this time.

Option 6-D: Direct Staff to Return with Options for a Sustainable Land Use Framework

Under this option, the Board would direct staff to prepare options for Board consideration for further direction that would initiate the development of a sustainable land use framework for a General Plan Update. Options would include at a minimum the following: 1) targeted up planning through development of an overlay that prioritizes new residential, commercial, and mixed-use investment in areas identified as VMT Efficient (Regional Average), infill areas

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(and any selected buffer), and Transit Opportunity Areas in advance of consideration as part of the CAP SEIR, and 2) comprehensive up planning and downzoning across the entire unincorporated area. The Board could also direct additional options for staff evaluation.

Item 3 – VMT Mitigation Program Options

The following options are provided for the Board's consideration on how the County can move forward in implementing a VMT Mitigation Program.

Option 3-A: Work with SANDAG to Develop a Regional VMT Mitigation Program

The County could work with SANDAG to develop a regional VMT Mitigation Program that will help to fund the multi-modal infrastructure identified within the 2021 Draft Regional Plan and reduce VMT throughout the region rather than only in the unincorporated area. A regional VMT mitigation program will allow new development within the unincorporated area of the county to get VMT credit from helping build regional infrastructure such as new transit lines and services as well as multi-modal infrastructure that is being implemented within highly VMT efficient areas. Additionally, the 2021 Draft Regional Plan identified that implementation would result in a 14.1 percent reduction in the region's VMT per capita by 2050. This in conjunction with other localized improvements, such as transportation demand management (TDM), may be sufficient to reduce VMT related impacts within the unincorporated area. TDM includes strategies intended to provide commuters with additional choices like ridesharing to decrease the overall number of vehicle trips.

Additionally, if the County works with SANDAG in the development of a Regional VMT Mitigation Program, it can help to develop the process in which regional multi-modal infrastructure is prioritized and implemented. This may help to ensure that additional transit services and other regional VMT reducing infrastructure included in the program, will be implemented within the unincorporated area. Development of a Regional VMT Mitigation Program would not preclude the County from utilizing a portion of the VMT mitigation fees collected to reduce VMT within the unincorporated area or establishing a TDM Mitigation Program and could work in unison. By establishing a VMT Mitigation program that does both, projects could get higher VMT reductions by including the region as well as local VMT reductions in the unincorporated area.

Finally, the County and SANDAG could pursue Caltrans Partnership Grants, which provide funding for the development and implementation of a Regional VMT Mitigation Program as well as the environmental analysis. County and SANDAG staff have discussed this opportunity and have identified the 2022/2023 grant cycle as a potential timeframe to pursue this option. This approach would likely require the preparation of an EIR for the Regional VMT Mitigation Program. If VMT impacts cannot be fully mitigated through the program, a statement of overriding considerations would be required.

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Option 3-B: Work with the City of San Diego and/or Other Local Jurisdictions to Develop a Joint Program or Join an Existing Program like the City Program

As noted, the City of San Diego has adopted a VMT Mitigation Program, with a fee rate of \$1,400 per mile. This is substantially lower than the projected cost of \$10,000 and \$19,000 per VMT that is anticipated within the unincorporated area. The City of San Diego has a higher population and network capacity within its urban areas to accommodate additional VMT reducing infrastructure. As an alternative to a regional program with SANDAG, the County could work with the City of San Diego to either expand its program into the unincorporated area or develop a hybrid program where new development in the unincorporated area could mitigate a portion of their VMT related impacts in the unincorporated area and mitigate the remaining portion within the City of San Diego. This approach would allow new development within the unincorporated area to mitigate VMT impacts.

Staff could partner with the City of San Diego to pursue a Caltrans Sustainability Grant. The grant could fund the development and implementation of the program. During the outreach process for the City's ATILFP, County and City staff had preliminary discussions about the potential of a joint program or allowing new development within the unincorporated area to participate in the ATLIFP, and there was initial interest from City staff in the concept.

This approach will likely require the preparation of an EIR because the County may not be able to ensure that the funded VMT mitigation projects are completed prior to or concurrently with a development project because they are located outside of our jurisdiction, and the City may ultimately decide where and how the funds are spent. If VMT impacts cannot be fully mitigated through the program, a statement of overriding considerations would be required.

Option 3-C: Develop a County Specific VMT Mitigation Program

Under this option, the County would develop its own localized VMT Mitigation Program. The cost to fully mitigate VMT impacts within the unincorporated area may not be financially feasible for most new development projects, and the County may not have the VMT reducing capacity to fully mitigate VMT related impacts associated with all new development within the unincorporated area. As such, under this approach the County would prepare an EIR to disclose the VMT impacts associated with new development, identify the VMT Mitigation Program as partial mitigation for the impacts, disclose that the mitigation would not be sufficient to fully mitigate all VMT related impacts, and therefore, VMT related impacts associated with new development would be significant and unavoidable. A statement of overriding considerations would be required to approve these projects.

The County could pursue a Caltrans Sustainable Communities Grant to assist with the funding for the development of the fee program and the EIR. However, because it is anticipated that the County would not be able to fully mitigate its VMT related impacts through the program, it may not be as competitive for grant funding as other efforts.

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Items 7 through 11 – Revised TSG

The following options are provided on how the County can move forward with adoption of a revised TSG for VMT. The Board could direct preparation of a revised TSG and provide direction on future items to include in the TSG once environmental review is completed. The Board could also wait to adopt a revised TSG after environmental review is completed, and projects would continue to be evaluated on a case-by-case basis until a revised TSG is adopted. Options D & E regarding a LMA will require a General Plan Amendment to the Mobility Element to remove Level of Service (LOS), as it is identified as one of the County goals and policies that addresses efficient traffic operations as well as maintenance and management of the transportation network.

Option 7-A: Prepare a Revised TSG using a Regional Geography

Staff would prepare a revised TSG using a regional average, advertise the revised TSG for public review, then return to the Board for consideration and adoption. This option would include preparation of a revised TSG based on a regional average, advertise it for public review, conduct outreach and return to the Board for consideration and adoption.

Option 7-B: Adopt the 110 ADT Small Project Screening Criteria (can be combined with Option 7-A)

Staff would include the OPR recommended small project screening criteria of 110 ADT. This would allow projects that include 11 homes or fewer to move forward without VMT analysis.

Options 7-C: Adopt OPR Recommendation to Screen Out Projects with 100 Percent Affordable Housing

Adopt OPR screening language and allow projects with 100 percent affordable housing projects to be screened out from VMT analysis, regardless of their location. This option was included in the previous TSG.

Option 7-D: Adopt Additional Screening for Projects with at least 52 Percent Affordable Housing in Infill Areas (can be combined with Option 7-C)

Allow projects that have at least 52 percent affordable housing in infill areas to be screened out based on the evidence prepared in Attachment A - Technical Memorandum, Infill Opportunity Areas in unincorporated San Diego County. This option would not allow projects with less than 100 percent affordable housing to be screened out from VMT analysis if they are located outside of infill areas. If Option 1-A is chosen, it will supersede this option and allow projects to move forward within infill areas without VMT analysis and affordable housing.

Option 7-E: Require an LMA (cannot be combined with Option 7-F or 7-E)

Require an LMA for discretionary projects. The LMA would be used to require projects to make improvements to local roads and intersections based on a project's traffic contribution.

Option 7-F: Require an LMA for Safety Only (cannot be combined with Option 7-E or 7-G)

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Remove LOS from the LMA as a metric for analyzing traffic but continue to perform safety analysis. This option would require an amendment to the General Plan to revise a policy in the General Plan that requires projects to analyze traffic congestion based on LOS. The General Plan Amendment could be done along with a Programmatic EIR if directed under the other options.

Option 7-G: Do not Require an LMA Analysis (cannot be combined with Option 7-E or 7-F)

No longer conduct any traffic analysis other than VMT. Under this option, staff would still evaluate potential safety issues and require that projects address them on a project-by-project basis, but the County would not have an LMA Analysis. Without an LMA analysis, projects would no longer provide improvements to local roads based on the amount of traffic added. This option would also require a General Plan Amendment, which could be done along with a Programmatic EIR if directed under the other options.

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**Attachment B – OPR Technical Advisory on
Evaluating Transportation Impacts in CEQA**

TECHNICAL ADVISORY

ON EVALUATING TRANSPORTATION IMPACTS IN CEQA



December 2018

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A. Introduction

This technical advisory is one in a series of advisories provided by the Governor’s Office of Planning and Research (OPR) as a service to professional planners, land use officials, and CEQA practitioners. OPR issues technical assistance on issues that broadly affect the practice of land use planning and the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). (Gov. Code, § 65040, subds. (g), (l), (m).) The purpose of this document is to provide advice and recommendations, which agencies and other entities may use at their discretion. This document does not alter lead agency discretion in preparing environmental documents subject to CEQA. This document should not be construed as legal advice.

[Senate Bill 743](#) (Steinberg, 2013), which was codified in Public Resources Code section 21099, required changes to the guidelines implementing CEQA (CEQA Guidelines) (Cal. Code Regs., Title 14, Div. 6, Ch. 3, § 15000 et seq.) regarding the analysis of transportation impacts. As one appellate court recently explained: “During the last 10 years, the Legislature has charted a course of long-term sustainability based on denser infill development, reduced reliance on individual vehicles and improved mass transit, all with the goal of reducing greenhouse gas emissions. Section 21099 is part of that strategy” (*Covina Residents for Responsible Development v. City of Covina* (2018) 21 Cal.App.5th 712, 729.) Pursuant to Section 21099, the criteria for determining the significance of transportation impacts must “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” (*Id.*, subd. (b)(1); see generally, adopted CEQA Guidelines, § 15064.3, subd. (b) [Criteria for Analyzing Transportation Impacts].) To that end, in developing the criteria, OPR has proposed, and the California Natural Resources Agency (Agency) has certified and adopted, changes to the CEQA Guidelines that identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project’s transportation impacts. With the California Natural Resources Agency’s certification and adoption of the changes to the CEQA Guidelines, automobile delay, as measured by “level of service” and other similar metrics, generally no longer constitutes a significant environmental effect under CEQA. (Pub. Resources Code, § 21099, subd. (b)(3).)

This advisory contains technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. Again, OPR provides this Technical Advisory as a resource for the public to use at their discretion. OPR is not enforcing or attempting to enforce any part of the recommendations contained herein. (Gov. Code, § 65035 [“It is not the intent of the Legislature to vest in the Office of Planning and Research any direct operating or regulatory powers over land use, public works, or other state, regional, or local projects or programs.”].)

This December 2018 technical advisory is an update to the advisory it published in April 2018. OPR will continue to monitor implementation of these new provisions and may update or supplement this advisory in response to new information and advancements in modeling and methods.

B. Background

VMT and Greenhouse Gas Emissions Reduction. Senate Bill 32 (Pavley, 2016) requires California to reduce greenhouse gas (GHG) emissions 40 percent below 1990 levels by 2030, and Executive Order B-16-12 provides a target of 80 percent below 1990 emissions levels for the transportation sector by 2050. The transportation sector has three major means of reducing GHG emissions: increasing vehicle efficiency, reducing fuel carbon content, and reducing the amount of vehicle travel. The California Air Resources Board (CARB) has provided a path forward for achieving these emissions reductions from the transportation sector in its 2016 Mobile Source Strategy. CARB determined that it will not be possible to achieve the State's 2030 and post-2030 emissions goals without reducing VMT growth. Further, in its 2018 Progress Report on California's Sustainable Communities and Climate Protection Act, CARB found that despite the State meeting its 2020 climate goals, "emissions from statewide passenger vehicle travel per capita [have been] increasing and going in the wrong direction," and "California cannot meet its [long-term] climate goals without curbing growth in single-occupancy vehicle activity."¹ CARB also found that "[w]ith emissions from the transportation sector continuing to rise despite increases in fuel efficiency and decreases in the carbon content of fuel, California will not achieve the necessary greenhouse gas emissions reductions to meet mandates for 2030 and beyond without significant changes to how communities and transportation systems are planned, funded, and built."²

Thus, to achieve the State's long-term climate goals, California needs to reduce per capita VMT. This can occur under CEQA through VMT mitigation. Half of California's GHG emissions come from the transportation sector³, therefore, reducing VMT is an effective climate strategy, which can also result in co-benefits.⁴ Furthermore, without early VMT mitigation, the state may follow a path that meets GHG targets in the early years, but finds itself poorly positioned to meet more stringent targets later. For example, in absence of VMT analysis and mitigation in CEQA, lead agencies might rely upon verifiable offsets for GHG mitigation, ignoring the longer-term climate change impacts resulting from land use development and infrastructure investment decisions. As stated in CARB's 2017 Scoping Plan:

"California's future climate strategy will require increased focus on integrated land use planning to support livable, transit-connected communities, and conservation of agricultural and other lands. Accommodating population and economic growth through travel- and energy-efficient land use provides GHG-efficient growth, reducing GHGs from both transportation and building energy use. GHGs can be further reduced at the project level through implementing energy-efficient construction and travel demand management approaches."⁵ (*Id.* at p. 102.)

¹ California Air Resources Board (Nov. 2018) *2018 Progress Report on California's Sustainable Communities and Climate Protection Act*, pp. 4, 5, available at https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf.

² *Id.*, p. 28.

³ See <https://ca50million.ca.gov/transportation/>

⁴ Fang et al. (2017) *Cutting Greenhouse Gas Emissions Is Only the Beginning: A Literature Review of the Co-Benefits of Reducing Vehicle Miles Traveled*.

⁵ California Air Resources Board (Nov. 2017) *California's 2017 Climate Change Scoping Plan*, p. 102, available at https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

In light of this, the 2017 Scoping Plan describes and quantifies VMT reductions needed to achieve our long-term GHG emissions reduction goals, and specifically points to the need for statewide deployment of the VMT metric in CEQA:

“Employing VMT as the metric of transportation impact statewide will help to ensure GHG reductions planned under SB 375 will be achieved through on-the-ground development, and will also play an important role in creating the additional GHG reductions needed beyond SB 375 across the State. Implementation of this change will rely, in part, on local land use decisions to reduce GHG emissions associated with the transportation sector, both at the project level, and in long-term plans (including general plans, climate action plans, specific plans, and transportation plans) and supporting sustainable community strategies developed under SB 375.”⁶

VMT and Other Impacts to Health and Environment. VMT mitigation also creates substantial benefits (sometimes characterized as “co-benefits” to GHG reduction) in both in the near-term and the long-term. Beyond GHG emissions, increases in VMT also impact human health and the natural environment. Human health is impacted as increases in vehicle travel lead to more vehicle crashes, poorer air quality, increases in chronic diseases associated with reduced physical activity, and worse mental health. Increases in vehicle travel also negatively affect other road users, including pedestrians, cyclists, other motorists, and many transit users. The natural environment is impacted as higher VMT leads to more collisions with wildlife and fragments habitat. Additionally, development that leads to more vehicle travel also tends to consume more energy, water, and open space (including farmland and sensitive habitat). This increase in impermeable surfaces raises the flood risk and pollutant transport into waterways.⁷

VMT and Economic Growth. While it was previously believed that VMT growth was a necessary component of economic growth, data from the past two decades shows that economic growth is possible without a concomitant increase in VMT. (Figure 1.) Recent research shows that requiring development projects to mitigate LOS may actually reduce accessibility to destinations and impede economic growth.^{8,9}

⁶ *Id.* at p. 76.

⁷ Fang et al. (2017) *Cutting Greenhouse Gas Emissions Is Only the Beginning: A Literature Review of the Co-Benefits of Reducing Vehicle Miles Traveled*, available at https://ncst.ucdavis.edu/wp-content/uploads/2017/03/NCST-VMT-Co-Benefits-White-Paper_Fang_March-2017.pdf.

⁸ Haynes et al. (Sept. 2015) *Congested Development: A Study of Traffic Delays, Access, and Economic Activity in Metropolitan Los Angeles*, available at http://www.its.ucla.edu/wp-content/uploads/sites/6/2015/11/Haynes_Congested-Development_1-Oct-2015_final.pdf.

⁹ Osman et al. (Mar. 2016) *Not So Fast: A Study of Traffic Delays, Access, and Economic Activity in the San Francisco Bay Area*, available at http://www.its.ucla.edu/wp-content/uploads/sites/6/2016/08/Taylor-Not-so-Fast-04-01-2016_final.pdf.

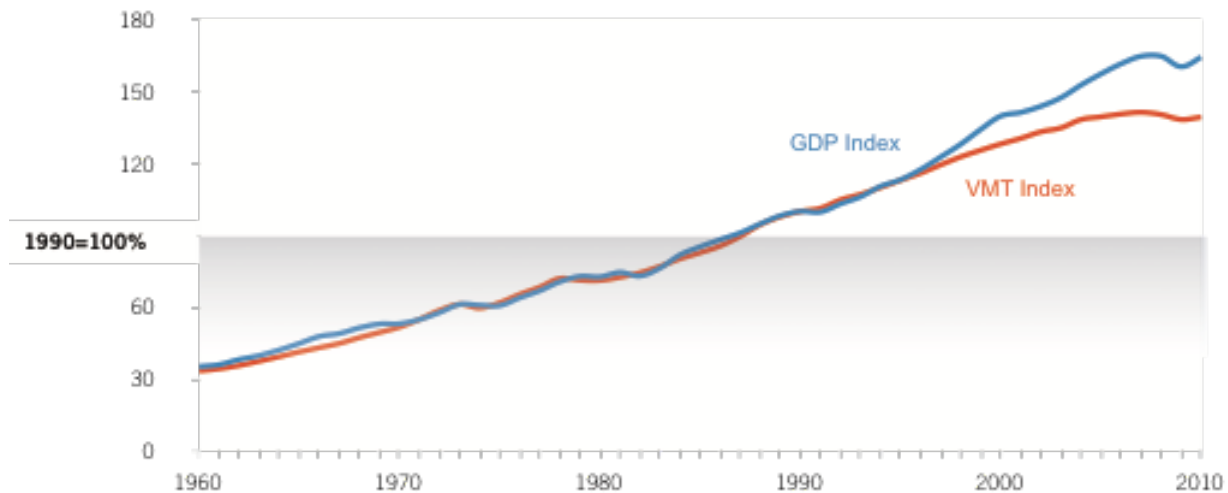


Figure 1. Kooshian and Winkelman (2011) *VMT and Gross Domestic Product (GDP), 1960-2010*.

C. Technical Considerations in Assessing Vehicle Miles Traveled

Many practitioners are familiar with accounting for VMT in connection with long-range planning, or as part of the CEQA analysis of a project's greenhouse gas emissions or energy impacts. This document provides technical information on how to assess VMT as part of a transportation impacts analysis under CEQA. Appendix 1 provides a description of which VMT to count and options on how to count it. Appendix 2 provides information on induced travel resulting from roadway capacity projects, including the mechanisms giving rise to induced travel, the research quantifying it, and information on additional approaches for assessing it.

1. Recommendations Regarding Methodology

Proposed Section 15064.3 explains that a "lead agency may use models to estimate a project's vehicle miles traveled . . ." CEQA generally defers to lead agencies on the choice of methodology to analyze impacts. (*Santa Monica Baykeeper v. City of Malibu* (2011) 193 Cal.App.4th 1538, 1546; see *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 409 ["the issue is not whether the studies are irrefutable or whether they could have been better" ... rather, the "relevant issue is only whether the studies are sufficiently credible to be considered" as part of the lead agency's overall evaluation].) This section provides suggestions to lead agencies regarding methodologies to analyze VMT associated with a project.

Vehicle Types. Proposed Section 15064.3, subdivision (a), states, "For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." Here, the term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty truck VMT could be included for modeling convenience and ease of calculation (for example, where models or data provide combined auto and heavy truck VMT). For an apples-to-apples

comparison, vehicle types considered should be consistent across project assessment, significance thresholds, and mitigation.

Residential and Office Projects. Tour- and trip-based approaches¹⁰ offer the best methods for assessing VMT from residential/office projects and for comparing those assessments to VMT thresholds. These approaches also offer the most straightforward methods for assessing VMT reductions from mitigation measures for residential/office projects. When available, tour-based assessment is ideal because it captures travel behavior more comprehensively. But where tour-based tools or data are not available for all components of an analysis, a trip-based assessment of VMT serves as a reasonable proxy.

Models and methodologies used to calculate thresholds, estimate project VMT, and estimate VMT reduction due to mitigation should be comparable. For example:

- A tour-based assessment of project VMT should be compared to a tour-based threshold, or a trip-based assessment to a trip-based VMT threshold.
- Where a travel demand model is used to determine thresholds, the same model should also be used to provide trip lengths as part of assessing project VMT.
- Where only trip-based estimates of VMT reduction from mitigation are available, a trip-based threshold should be used, and project VMT should be assessed in a trip-based manner.

When a trip-based method is used to analyze a residential project, the focus can be on home-based trips. Similarly, when a trip-based method is used to analyze an office project, the focus can be on home-based work trips.

When tour-based models are used to analyze an office project, either employee work tour VMT or VMT from all employee tours may be attributed to the project. This is because workplace location influences overall travel. For consistency, the significance threshold should be based on the same metric: either employee work tour VMT or VMT from all employee tours.

For office projects that feature a customer component, such as a government office that serves the public, a lead agency can analyze the customer VMT component of the project using the methodology for retail development (see below).

Retail Projects. Generally, lead agencies should analyze the effects of a retail project by assessing the change in total VMT¹¹ because retail projects typically re-route travel from other retail destinations. A retail project might lead to increases or decreases in VMT, depending on previously existing retail travel patterns.

¹⁰ See Appendix 1, *Considerations About Which VMT to Count*, for a description of these approaches.

¹¹ See Appendix 1, *Considerations About Which VMT to Count*, “Assessing Change in Total VMT” section, for a description of this approach.

Considerations for All Projects. Lead agencies should not truncate any VMT analysis because of jurisdictional or other boundaries, for example, by failing to count the portion of a trip that falls outside the jurisdiction or by discounting the VMT from a trip that crosses a jurisdictional boundary. CEQA requires environmental analyses to reflect a “good faith effort at full disclosure.” (CEQA Guidelines, § 15151.) Thus, where methodologies exist that can estimate the full extent of vehicle travel from a project, the lead agency should apply them to do so. Where those VMT effects will grow over time, analyses should consider both a project’s short-term and long-term effects on VMT.

Combining land uses for VMT analysis is not recommended. Different land uses generate different amounts of VMT, so the outcome of such an analysis could depend more on the mix of uses than on their travel efficiency. As a result, it could be difficult or impossible for a lead agency to connect a significance threshold with an environmental policy objective (such as a target set by law), inhibiting the CEQA imperative of identifying a project’s significant impacts and providing mitigation where feasible. Combining land uses for a VMT analysis could streamline certain mixes of uses in a manner disconnected from policy objectives or environmental outcomes. Instead, OPR recommends analyzing each use separately, or simply focusing analysis on the dominant use, and comparing each result to the appropriate threshold. Recommendations for methods of analysis and thresholds are provided below. In the analysis of each use, a mixed-use project should take credit for internal capture.

Any project that includes in its geographic bounds a portion of an existing or planned Transit Priority Area (i.e., the project is within a ½ mile of an existing or planned major transit stop or an existing stop along a high quality transit corridor) may employ VMT as its primary metric of transportation impact for the entire project. (See Pub. Resources Code, § 21099, subds. (a)(7), (b)(1).)

Cumulative Impacts. A project’s cumulative impacts are based on an assessment of whether the “incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” (Pub. Resources Code, § 21083, subd. (b)(2); see CEQA Guidelines, § 15064, subd. (h)(1).) When using an absolute VMT metric, i.e., total VMT (as recommended below for retail and transportation projects), analyzing the combined impacts for a cumulative impacts analysis may be appropriate. However, metrics such as VMT per capita or VMT per employee, i.e., metrics framed in terms of efficiency (as recommended below for use on residential and office projects), cannot be summed because they employ a denominator. A project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact. Accordingly, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa. This is similar to the analysis typically conducted for greenhouse gas emissions, air quality impacts, and impacts that utilize plan compliance as a threshold of significance. (See *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal.4th 204, 219, 223; CEQA Guidelines, § 15064, subd. (h)(3).)

D. General Principles to Guide Consideration of VMT

SB 743 directs OPR to establish specific “criteria for determining the significance of transportation impacts of projects[.]” (Pub. Resources Code, § 21099, subd. (b)(1).) In establishing this criterion, OPR was guided by the general principles contained within CEQA, the CEQA Guidelines, and applicable case law.

To assist in the determination of significance, many lead agencies rely on “thresholds of significance.” The CEQA Guidelines define a “threshold of significance” to mean “an identifiable **quantitative, qualitative¹² or performance level** of a particular environmental effect, non-compliance with which means the effect will **normally** be determined to be significant by the agency and compliance with which means the effect **normally** will be determined to be less than significant.” (CEQA Guidelines, § 15064.7, subd. (a) (emphasis added).) Lead agencies have discretion to develop and adopt their own, or rely on thresholds recommended by other agencies, “provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.” (*Id.* at subd. (c); *Save Cuyama Valley v. County of Santa Barbara* (2013) 213 Cal.App.4th 1059, 1068.) Substantial evidence means “enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached.” (*Id.* at § 15384 (emphasis added); *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1108-1109.)

Additionally, the analysis leading to the determination of significance need not be perfect. The CEQA Guidelines describe the standard for adequacy of environmental analyses:

An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to **make a decision which intelligently takes account of environmental consequences**. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is **reasonably feasible**. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The **courts have looked not for perfection** but for **adequacy, completeness**, and a **good faith effort** at full disclosure.

(CEQA Guidelines, § 15151 (emphasis added).)

These general principles guide OPR’s recommendations regarding thresholds of significance for VMT set forth below.

¹² Generally, qualitative analyses should only be conducted when methods do not exist for undertaking a quantitative analysis.

E. Recommendations Regarding Significance Thresholds

As noted above, lead agencies have the discretion to set or apply their own thresholds of significance. (*Center for Biological Diversity v. California Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 218-223 [lead agency had discretion to use compliance with AB 32's emissions goals as a significance threshold]; *Save Cuyama Valley v. County of Santa Barbara* (2013) 213 Cal.App.4th at p. 1068.) However, Section 21099 of the Public Resources Code states that the criteria for determining the significance of transportation impacts must promote: (1) reduction of greenhouse gas emissions; (2) development of multimodal transportation networks; and (3) a diversity of land uses. It further directed OPR to prepare and develop criteria for determining significance. (Pub. Resources Code, § 21099, subd. (b)(1).) This section provides OPR's suggested thresholds, as well as considerations for lead agencies that choose to adopt their own

The VMT metric can support the three statutory goals: “the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” (Pub. Resources Code, § 21099, subd. (b)(1), emphasis added.) However, in order for it to promote and support all three, lead agencies should select a significance threshold that aligns with state law on all three. State law concerning the development of multimodal transportation networks and diversity of land uses requires planning for and prioritizing increases in complete streets and infill development, but does not mandate a particular depth of implementation that could translate into a particular threshold of significance. Meanwhile, the State has clear quantitative targets for GHG emissions reduction set forth in law and based on scientific consensus, and the depth of VMT reduction needed to achieve those targets has been quantified. Tying VMT thresholds to GHG reduction also supports the two other statutory goals. Therefore, to ensure adequate analysis of transportation impacts, OPR recommends using quantitative VMT thresholds linked to GHG reduction targets when methods exist to do so.

Various legislative mandates and state policies establish quantitative greenhouse gas emissions reduction targets. For example:

- Assembly Bill 32 (2006) requires statewide GHG emissions reductions to 1990 levels by 2020 and continued reductions beyond 2020.
- Senate Bill 32 (2016) requires at least a 40 percent reduction in GHG emissions from 1990 levels by 2030.
- Pursuant to Senate Bill 375 (2008), the California Air Resources Board GHG emissions reduction targets for metropolitan planning organizations (MPOs) to achieve based on land use patterns and transportation systems specified in Regional Transportation Plans and Sustainable Community Strategies (RTP/SCS). Current targets for the State's largest MPOs call for a 19 percent reduction in GHG emissions from cars and light trucks from 2005 emissions levels by 2035.
- Executive Order B-30-15 (2015) sets a GHG emissions reduction target of 40 percent below 1990 levels by 2030.

- Executive Order S-3-05 (2005) sets a GHG emissions reduction target of 80 percent below 1990 levels by 2050.
- Executive Order B-16-12 (2012) specifies a GHG emissions reduction target of 80 percent below 1990 levels by 2050 specifically for transportation.
- Executive Order B-55-18 (2018) established an additional statewide goal of achieving carbon neutrality as soon as possible, but no later than 2045, and maintaining net negative emissions thereafter. It states, “The California Air Resources Board shall work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal.”
- Senate Bill 391 requires the California Transportation Plan to support 80 percent reduction in GHGs below 1990 levels by 2050.
- The California Air Resources Board Mobile Source Strategy (2016) describes California’s strategy for containing air pollutant emissions from vehicles, and quantifies VMT growth compatible with achieving state targets.
- The California Air Resources Board’s 2017 Climate Change Scoping Plan Update: The Strategy for Achieving California’s 2030 Greenhouse Gas Target describes California’s strategy for containing GHG emissions from vehicles, and quantifies VMT growth compatible with achieving state targets.

Considering these various targets, the California Supreme Court observed:

Meeting our statewide reduction goals does not preclude all new development. Rather, the Scoping Plan ... assumes continued growth and depends on increased efficiency and conservation in land use and transportation from all Californians.

(*Center for Biological Diversity v. California Dept. of Fish & Wildlife, supra*, 62 Cal.4th at p. 220.) Indeed, the Court noted that when a lead agency uses consistency with climate goals as a way to determine significance, particularly for long-term projects, the lead agency must consider the project’s effect on meeting long-term reduction goals. (*Ibid.*) And more recently, the Supreme Court stated that “CEQA requires public agencies . . . to ensure that such analysis stay in step with evolving scientific knowledge and state regulatory schemes.” (*Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 504.)

Meeting the targets described above will require substantial reductions in existing VMT per capita to curb GHG emissions and other pollutants. But targets for overall GHG emissions reduction do not translate directly into VMT thresholds for individual projects for many reasons, including:

- Some, but not all, of the emissions reductions needed to achieve those targets could be accomplished by other measures, including increased vehicle efficiency and decreased fuel carbon content. The CARB’s *First Update to the Climate Change Scoping Plan* explains:

“Achieving California’s long-term criteria pollutant and GHG emissions goals will require four strategies to be employed: (1) improve vehicle efficiency and develop zero emission technologies, (2) reduce the carbon content of fuels and provide market support to get these lower-carbon fuels into the marketplace, (3) **plan and build communities to reduce vehicular GHG emissions and provide more transportation options, and (4) improve the efficiency and throughput of existing transportation systems.**”¹³ CARB’s *2018 Progress Report on California’s Sustainable Communities and Climate Protection Act* states on page 28 that “California cannot meet its climate goals without curbing growth in single-occupancy vehicle activity.” In other words, vehicle efficiency and better fuels are necessary, but insufficient, to address the GHG emissions from the transportation system. Land use patterns and transportation options also will need to change to support reductions in vehicle travel/VMT.

- New land use projects alone will not sufficiently reduce per-capita VMT to achieve those targets, nor are they expected to be the sole source of VMT reduction.
- Interactions between land use projects, and also between land use and transportation projects, existing and future, together affect VMT.
- Because location within the region is the most important determinant of VMT, in some cases, streamlining CEQA review of projects in travel efficient locations may be the most effective means of reducing VMT.
- When assessing climate impacts of some types of land use projects, use of an efficiency metric (e.g., per capita, per employee) may provide a better measure of impact than an absolute numeric threshold. (*Center for Biological Diversity, supra.*)

Public Resources Code section 21099 directs OPR to propose criteria for determining the significance of transportation impacts. In this Technical Advisory, OPR provides its recommendations to assist lead agencies in selecting a significance threshold that may be appropriate for their particular projects. While OPR’s Technical Advisory is not binding on public agencies, CEQA allows lead agencies to “consider thresholds of significance . . . recommended by other public agencies, provided the decision to adopt those thresholds is supported by substantial evidence.” (CEQA Guidelines, § 15064.7, subd. (c).) Based on OPR’s extensive review of the applicable research, and in light of an assessment by the California Air Resources Board quantifying the need for VMT reduction in order to meet the State’s long-term climate goals, **OPR recommends that a per capita or per employee VMT that is fifteen percent below that of existing development may be a reasonable threshold.**

Fifteen percent reductions in VMT are achievable at the project level in a variety of place types.¹⁴

Moreover, a fifteen percent reduction is consistent with SB 743’s direction to OPR to select a threshold that will help the State achieve its climate goals. As described above, section 21099 states that the

¹³ California Air Resources Board (May 2014) *First Update to the Climate Change Scoping Plan*, p. 46 (emphasis added).

¹⁴ CAPCOA (2010) *Quantifying Greenhouse Gas Mitigation Measures*, p. 55, available at <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>.

criteria for determining significance must “promote the reduction in greenhouse gas emissions.” In its document *California Air Resources Board 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*¹⁵, CARB assesses VMT reduction per capita consistent with its evidence-based modeling scenario that would achieve State climate goals of 40 percent GHG emissions reduction from 1990 levels by 2030 and 80 percent GHG emissions reduction levels from 1990 by 2050. Applying California Department of Finance population forecasts, CARB finds per-capita light-duty vehicle travel would need to be approximately 16.8 percent lower than existing, and overall per-capita vehicle travel would need to be approximately 14.3 percent lower than existing levels under that scenario. Below these levels, a project could be considered low VMT and would, on that metric, be consistent with 2017 Scoping Plan Update assumptions that achieve climate state climate goals.

CARB finds per capita vehicle travel would need to be kept below what today’s policies and plans would achieve.

CARB’s assessment is based on data in the 2017 Scoping Plan Update and 2016 Mobile Source Strategy. In those documents, CARB previously examined the relationship between VMT and the state’s GHG emissions reduction targets. The Scoping Plan finds:

“While the State can do more to accelerate and incentivize these local decisions, local actions that reduce VMT are also necessary to meet transportation sector-specific goals and achieve the 2030 target under SB 32. Through developing the Scoping Plan, CARB staff is more convinced than ever that, in addition to achieving GHG reductions from cleaner fuels and vehicles, California must also reduce VMT. Stronger SB 375 GHG reduction targets will enable the State to make significant progress toward needed reductions, but alone will not provide the VMT growth reductions needed; there is a gap between what SB 375 can provide and what is needed to meet the State’s 2030 and 2050 goals.”¹⁶

Note that, at present, consistency with RTP/SCSs does not necessarily lead to a less-than-significant VMT impact.¹⁷ As the Final 2017 Scoping Plan Update states,

VMT reductions are necessary to achieve the 2030 target and must be part of any strategy evaluated in this Plan. Stronger SB 375 GHG reduction targets will enable the State to make significant progress toward this goal, but alone will not provide all of the VMT growth reductions that will be needed. There is a gap between what SB 375 can provide and what is needed to meet the State’s 2030 and 2050 goals.”¹⁸

¹⁵ California Air Resources Board (Jan. 2019) *California Air Resources Board 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*, available at <https://ww2.arb.ca.gov/resources/documents/carb-2017-scoping-plan-identified-vmt-reductions-and-relationship-state-climate>.

¹⁶ California Air Resources Board (Nov. 2017) *California’s 2017 Climate Change Scoping Plan*, p. 101.

¹⁷ California Air Resources Board (Feb. 2018) *Updated Final Staff Report: Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets*, Figure 3, p. 35, available at https://www.arb.ca.gov/cc/sb375/sb375_target_update_final_staff_report_feb2018.pdf.

¹⁸ California Air Resources Board (Nov. 2017) *California’s 2017 Climate Change Scoping Plan*, p. 75.

Also, in order to capture the full effects of induced travel resulting from roadway capacity projects, an RTP/SCS would need to include an assessment of land use effects of those projects, and the effects of those land uses on VMT. (See section titled “*Estimating VMT Impacts from Transportation Projects*” below.) RTP/SCSs typically model VMT using a collaboratively-developed land use “vision” for the region’s land use, rather than studying the effects on land use of the proposed transportation investments.

In summary, achieving 15 percent lower per capita (residential) or per employee (office) VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the State’s emissions goals.

1. Screening Thresholds for Land Use Projects

Many agencies use “screening thresholds” to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. (See e.g., CEQA Guidelines, §§ 15063(c)(3)(C), 15128, and Appendix G.) As explained below, this technical advisory suggests that lead agencies may screen out VMT impacts using project size, maps, transit availability, and provision of affordable housing.

Screening Threshold for Small Projects

Many local agencies have developed screening thresholds to indicate when detailed analysis is needed. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day¹⁹ generally may be assumed to cause a less-than-significant transportation impact.

Map-Based Screening for Residential and Office Projects

Residential and office projects that locate in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT. Maps created with VMT data, for example from a travel survey or a travel demand model, can illustrate areas that are

¹⁹ CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subd. (e)(2).) Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110-124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.

currently below threshold VMT (see recommendations below). Because new development in such locations would likely result in a similar level of VMT, such maps can be used to screen out residential and office projects from needing to prepare a detailed VMT analysis.

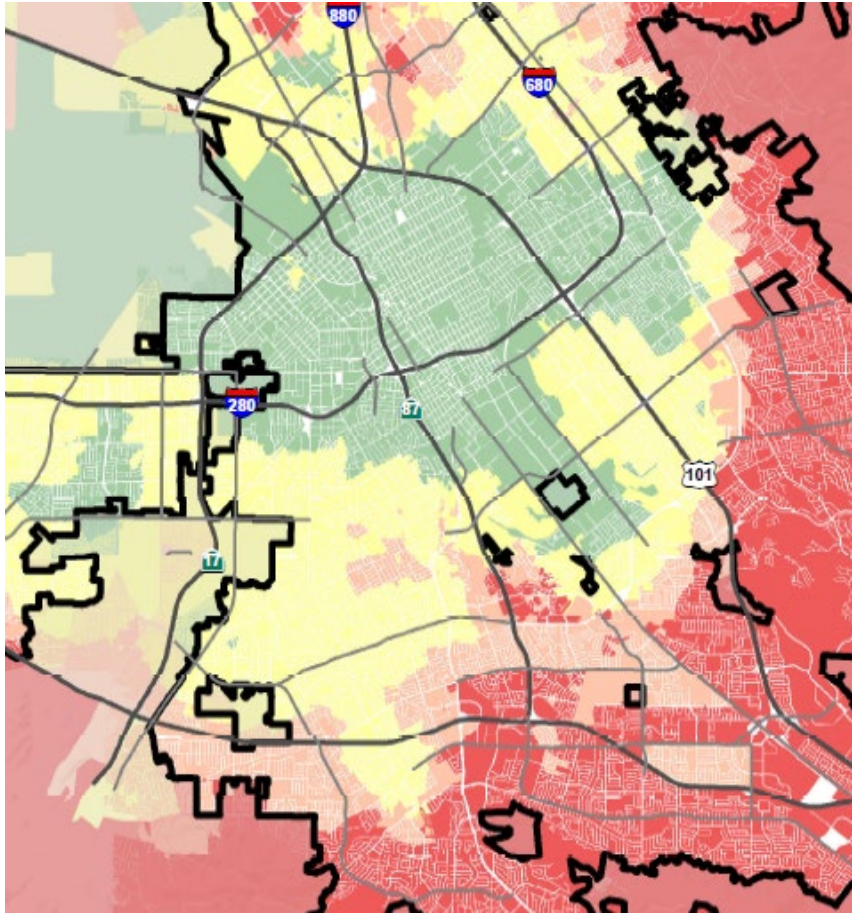


Figure 2. Example map of household VMT that could be used to delineate areas eligible to receive streamlining for VMT analysis. (Source: City of San José, Department of Transportation, draft output of City Transportation Model.)

Presumption of Less Than Significant Impact Near Transit Stations

Proposed CEQA Guideline Section 15064.3, subdivision (b)(1), states that lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within ½ mile of an existing major transit stop²⁰ or an existing stop

²⁰ Pub. Resources Code, § 21064.3 (“‘Major transit stop’ means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.”).

along a high quality transit corridor²¹ will have a less-than-significant impact on VMT. This presumption would not apply, however, if project-specific or location-specific information indicates that the project will still generate significant levels of VMT. For example, the presumption might not be appropriate if the project:

- Has a Floor Area Ratio (FAR) of less than 0.75
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking)
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization)
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units

A project or plan near transit which replaces affordable residential units²² with a smaller number of moderate- or high-income residential units may increase overall VMT because the increase in VMT of displaced residents could overwhelm the improvements in travel efficiency enjoyed by new residents.²³

If any of these exceptions to the presumption might apply, the lead agency should conduct a detailed VMT analysis to determine whether the project would exceed VMT thresholds (see below).

Presumption of Less Than Significant Impact for Affordable Residential Development

Adding affordable housing to infill locations generally improves jobs-housing match, in turn shortening commutes and reducing VMT.^{24,25} Further, "... low-wage workers in particular would be more likely to choose a residential location close to their workplace, if one is available."²⁶ In areas where existing jobs-housing match is closer to optimal, low income housing nevertheless generates less VMT than market-

²¹ Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

²² Including naturally-occurring affordable residential units.

²³ Chapple et al. (2017) *Developing a New Methodology for Analyzing Potential Displacement*, Chapter 4, pp. 159-160, available at <https://www.arb.ca.gov/research/apr/past/13-310.pdf>.

²⁴ Karner and Benner (2016) *The convergence of social equity and environmental sustainability: Jobs-housing fit and commute distance* ("[P]olicies that advance a more equitable distribution of jobs and housing by linking the affordability of locally available housing with local wage levels are likely to be associated with reduced commuting distances").

²⁵ Karner and Benner (2015) *Low-wage jobs-housing fit: identifying locations of affordable housing shortages*.

²⁶ Karner and Benner (2015) *Low-wage jobs-housing fit: identifying locations of affordable housing shortages*.

rate housing.^{27,28} Therefore, a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT. Evidence supports a presumption of less than significant impact for a 100 percent affordable residential development (or the residential component of a mixed-use development) in infill locations. Lead agencies may develop their own presumption of less than significant impact for residential projects (or residential portions of mixed use projects) containing a particular amount of affordable housing, based on local circumstances and evidence. Furthermore, a project which includes any affordable residential units may factor the effect of the affordability on VMT into the assessment of VMT generated by those units.

2. Recommended Numeric Thresholds for Residential, Office, and Retail Projects

Recommended threshold for residential projects: A proposed project exceeding a level of 15 percent below existing VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as regional VMT per capita or as city VMT per capita. Proposed development referencing a threshold based on city VMT per capita (rather than regional VMT per capita) should not cumulatively exceed the number of units specified in the SCS for that city, and should be consistent with the SCS.

Residential development that would generate vehicle travel that is 15 or more percent below the existing residential VMT per capita, measured against the region or city, may indicate a less-than-significant transportation impact. In MPO areas, development measured against city VMT per capita (rather than regional VMT per capita) should not cumulatively exceed the population or number of units specified in the SCS for that city because greater-than-planned amounts of development in areas above the region-based threshold would undermine the VMT containment needed to achieve regional targets under SB 375.

For residential projects in unincorporated county areas, the local agency can compare a residential project's VMT to (1) the region's VMT per capita, or (2) the aggregate population-weighted VMT per capita of all cities in the region. In MPO areas, development in unincorporated areas measured against aggregate city VMT per capita (rather than regional VMT per capita) should not cumulatively exceed the population or number of units specified in the SCS for that city because greater-than-planned amounts of development in areas above the regional threshold would undermine achievement of regional targets under SB 375.

²⁷ Chapple et al. (2017) *Developing a New Methodology for Analyzing Potential Displacement*, available at <https://www.arb.ca.gov/research/apr/past/13-310.pdf>.

²⁸ CAPCOA (2010) *Quantifying Greenhouse Gas Mitigation Measures*, pp. 176-178, available at <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>.

These thresholds can be applied to either household (i.e., tour-based) VMT or home-based (i.e., trip-based) VMT assessments.²⁹ It is critical, however, that the agency be consistent in its VMT measurement approach throughout the analysis to maintain an “apples-to-apples” comparison. For example, if the agency uses a home-based VMT for the threshold, it should also be use home-based VMT for calculating project VMT and VMT reduction due to mitigation measures.

Recommended threshold for office projects: A proposed project exceeding a level of 15 percent below existing regional VMT per employee may indicate a significant transportation impact.

Office projects that would generate vehicle travel exceeding 15 percent below existing VMT per employee for the region may indicate a significant transportation impact. In cases where the region is substantially larger than the geography over which most workers would be expected to live, it might be appropriate to refer to a smaller geography, such as the county, that includes the area over which nearly all workers would be expected to live.

Office VMT screening maps can be developed using tour-based data, considering either total employee VMT or employee work tour VMT. Similarly, tour-based analysis of office project VMT could consider either total employee VMT or employee work tour VMT. Where tour-based information is unavailable for threshold determination, project assessment, or assessment of mitigation, home-based work trip VMT should be used throughout all steps of the analysis to maintain an “apples-to-apples” comparison.

Recommended threshold for retail projects: A net increase in total VMT may indicate a significant transportation impact.

Because new retail development typically redistributes shopping trips rather than creating new trips,³⁰ estimating the total change in VMT (i.e., the difference in total VMT in the area affected with and without the project) is the best way to analyze a retail project’s transportation impacts.

By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, which can lead to substitution of longer trips for shorter ones, may tend to have a significant impact. Where such development decreases VMT, lead agencies should consider the impact to be less-than-significant.

Many cities and counties define local-serving and regional-serving retail in their zoning codes. Lead agencies may refer to those local definitions when available, but should also consider any project-

²⁹ See Appendix 1 for a description of these approaches.

³⁰ Lovejoy, et al. (2013) *Measuring the impacts of local land-use policies on vehicle miles of travel: The case of the first big-box store in Davis, California*, *The Journal of Transport and Land Use*.

specific information, such as market studies or economic impacts analyses that might bear on customers' travel behavior. Because lead agencies will best understand their own communities and the likely travel behaviors of future project users, they are likely in the best position to decide when a project will likely be local-serving. Generally, however, retail development including stores larger than 50,000 square feet might be considered regional-serving, and so lead agencies should undertake an analysis to determine whether the project might increase or decrease VMT.

Mixed-Use Projects

Lead agencies can evaluate each component of a mixed-use project independently and apply the significance threshold for each project type included (e.g., residential and retail). Alternatively, a lead agency may consider only the project's dominant use. In the analysis of each use, a project should take credit for internal capture. Combining different land uses and applying one threshold to those land uses may result in an inaccurate impact assessment.

Other Project Types

Of land use projects, residential, office, and retail projects tend to have the greatest influence on VMT. For that reason, OPR recommends the quantified thresholds described above for purposes of analysis and mitigation. Lead agencies, using more location-specific information, may develop their own more specific thresholds, which may include other land use types. In developing thresholds for other project types, or thresholds different from those recommended here, lead agencies should consider the purposes described in section 21099 of the Public Resources Code and regulations in the CEQA Guidelines on the development of thresholds of significance (e.g., CEQA Guidelines, § 15064.7).

Strategies and projects that decrease local VMT but increase total VMT should be avoided. Agencies should consider whether their actions encourage development in a less travel-efficient location by limiting development in travel-efficient locations.

Redevelopment Projects

Where a project replaces existing VMT-generating land uses, if the replacement leads to a net overall decrease in VMT, the project would lead to a less-than-significant transportation impact. If the project leads to a net overall increase in VMT, then the thresholds described above should apply.

As described above, a project or plan near transit which replaces affordable³¹ residential units with a smaller number of moderate- or high-income residential units may increase overall VMT, because

³¹ Including naturally-occurring affordable residential units.

displaced residents' VMT may increase.³² A lead agency should analyze VMT for such a project even if it otherwise would have been presumed less than significant. The assessment should incorporate an estimate of the aggregate VMT increase experienced by displaced residents. That additional VMT should be included in the numerator of the VMT per capita assessed for the project.

If a residential or office project leads to a net increase in VMT, then the project's VMT per capita (residential) or per employee (office) should be compared to thresholds recommended above. Per capita and per employee VMT are efficiency metrics, and, as such, apply only to the existing project without regard to the VMT generated by the previously existing land use.

If the project leads to a net increase in provision of locally-serving retail, transportation impacts from the retail portion of the development should be presumed to be less than significant. If the project consists of regionally-serving retail, and increases overall VMT compared to with existing uses, then the project would lead to a significant transportation impact.

RTP/SCS Consistency (All Land Use Projects)

Section 15125, subdivision (d), of the CEQA Guidelines provides that lead agencies should analyze impacts resulting from inconsistencies with regional plans, including regional transportation plans. For this reason, if a project is inconsistent with the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), the lead agency should evaluate whether that inconsistency indicates a significant impact on transportation. For example, a development may be inconsistent with an RTP/SCS if the development is outside the footprint of development or within an area specified as open space as shown in the SCS.

3. Recommendations Regarding Land Use Plans

As with projects, agencies should analyze VMT outcomes of land use plans across the full area over which the plan may substantively affect travel patterns, including beyond the boundary of the plan or jurisdiction's geography. And as with projects, VMT should be counted in full rather than split between origin and destination. (Emissions inventories have sometimes spit cross-boundary trips in order to sum to a regional total, but CEQA requires accounting for the full impact without truncation or discounting). Analysis of specific plans may employ the same thresholds described above for projects. A general plan, area plan, or community plan may have a significant impact on transportation if proposed new residential, office, or retail land uses would in aggregate exceed the respective thresholds recommended above. Where the lead agency tiers from a general plan EIR pursuant to CEQA Guidelines sections 15152 and 15166, the lead agency generally focuses on the environmental impacts that are specific to the later project and were not analyzed as significant impacts in the prior EIR. (Pub. Resources Code, § 21068.5; Guidelines, § 15152, subd. (a).) Thus, in analyzing the later project, the lead agency

³² Chapple et al. (2017) *Developing a New Methodology for Analyzing Potential Displacement*, Chapter 4, pp. 159-160, available at <https://www.arb.ca.gov/research/apr/past/13-310.pdf>.

would focus on the VMT impacts that were not adequately addressed in the prior EIR. In the tiered document, the lead agency should continue to apply the thresholds recommended above.

Thresholds for plans in non-MPO areas may be determined on a case-by-case basis.

4. Other Considerations

Rural Projects Outside of MPOs

In rural areas of non-MPO counties (i.e., areas not near established or incorporated cities or towns), fewer options may be available for reducing VMT, and significance thresholds may be best determined on a case-by-case basis. Note, however, that clustered small towns and small town main streets may have substantial VMT benefits compared to isolated rural development, similar to the transit oriented development described above.

Impacts to Transit

Because criteria for determining the significance of transportation impacts must promote “the development of multimodal transportation networks” pursuant to Public Resources Code section 21099, subd. (b)(1), lead agencies should consider project impacts to transit systems and bicycle and pedestrian networks. For example, a project that blocks access to a transit stop or blocks a transit route itself may interfere with transit functions. Lead agencies should consult with transit agencies as early as possible in the development process, particularly for projects that are located within one half mile of transit stops.

When evaluating impacts to multimodal transportation networks, lead agencies generally should not treat the addition of new transit users as an adverse impact. An infill development may add riders to transit systems and the additional boarding and alighting may slow transit vehicles, but it also adds destinations, improving proximity and accessibility. Such development also improves regional vehicle flow by adding less vehicle travel onto the regional network.

Increased demand throughout a region may, however, cause a cumulative impact by requiring new or additional transit infrastructure. Such impacts may be adequately addressed through a fee program that fairly allocates the cost of improvements not just to projects that happen to locate near transit, but rather across a region to all projects that impose burdens on the entire transportation system, since transit can broadly improve the function of the transportation system.

F. Considering the Effects of Transportation Projects on Vehicle Travel

Many transportation projects change travel patterns. A transportation project which leads to additional vehicle travel on the roadway network, commonly referred to as “induced vehicle travel,” would need to quantify the amount of additional vehicle travel in order to assess air quality impacts, greenhouse gas emissions impacts, energy impacts, and noise impacts. Transportation projects also are required to

examine induced growth impacts under CEQA. (See generally, Pub. Resources Code, §§ 21065 [defining “project” under CEQA as an activity as causing either a direct or reasonably foreseeable indirect physical change], 21065.3 [defining “project-specific effect” to mean all direct or indirect environmental effects], 21100, subd. (b) [required contents of an EIR].) For any project that increases vehicle travel, explicit assessment and quantitative reporting of the amount of additional vehicle travel should not be omitted from the document; such information may be useful and necessary for a full understanding of a project’s environmental impacts. (See Pub. Resources Code, §§ 21000, 21001, 21001.1, 21002, 21002.1 [discussing the policies of CEQA].) A lead agency that uses the VMT metric to assess the transportation impacts of a transportation project may simply report that change in VMT as the impact. When the lead agency uses another metric to analyze the transportation impacts of a roadway project, changes in amount of vehicle travel added to the roadway network should still be analyzed and reported.³³

While CEQA does not require perfection, it is important to make a reasonably accurate estimate of transportation projects’ effects on vehicle travel in order to make reasonably accurate estimates of GHG emissions, air quality emissions, energy impacts, and noise impacts. (See, e.g., *California Clean Energy Com. v. City of Woodland* (2014) 225 Cal.App.4th 173, 210 [EIR failed to consider project’s transportation energy impacts]; *Ukiah Citizens for Safety First v. City of Ukiah* (2016) 248 Cal.App.4th 256, 266.) Appendix 2 describes in detail the causes of induced vehicle travel, the robust empirical evidence of induced vehicle travel, and how models and research can be used in conjunction to quantitatively assess induced vehicle travel with reasonable accuracy.

If a project would likely lead to a measurable and substantial increase in vehicle travel, the lead agency should conduct an analysis assessing the amount of vehicle travel the project will induce. Project types that would likely lead to a measurable and substantial increase in vehicle travel generally include:

- Addition of through lanes on existing or new highways, including general purpose lanes, HOV lanes, peak period lanes, auxiliary lanes, or lanes through grade-separated interchanges

Projects that would not likely lead to a substantial or measurable increase in vehicle travel, and therefore generally should not require an induced travel analysis, include:

- Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways; roadways; bridges; culverts; Transportation Management System field elements such as cameras, message signs, detection, or signals; tunnels; transit systems; and assets that serve bicycle and pedestrian facilities) and that do not add additional motor vehicle capacity
- Roadside safety devices or hardware installation such as median barriers and guardrails

³³ See, e.g., California Department of Transportation (2006) *Guidance for Preparers of Growth-related, Indirect Impact Analyses*, available at http://www.dot.ca.gov/ser/Growth-related/IndirectImpactAnalysis/GRI_guidance06May_files/gri_guidance.pdf.

- Roadway shoulder enhancements to provide “breakdown space,” dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes
- Addition of an auxiliary lane of less than one mile in length designed to improve roadway safety
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, or emergency breakdown lanes that are not utilized as through lanes
- Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit
- Conversion of existing general purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not substantially increase vehicle travel
- Addition of a new lane that is permanently restricted to use only by transit vehicles
- Reduction in number of through lanes
- Grade separation to separate vehicles from rail, transit, pedestrians or bicycles, or to replace a lane in order to separate preferential vehicles (e.g., HOV, HOT, or trucks) from general vehicles
- Installation, removal, or reconfiguration of traffic control devices, including Transit Signal Priority (TSP) features
- Installation of traffic metering systems, detection systems, cameras, changeable message signs and other electronics designed to optimize vehicle, bicycle, or pedestrian flow
- Timing of signals to optimize vehicle, bicycle, or pedestrian flow
- Installation of roundabouts or traffic circles
- Installation or reconfiguration of traffic calming devices
- Adoption of or increase in tolls
- Addition of tolled lanes, where tolls are sufficient to mitigate VMT increase
- Initiation of new transit service
- Conversion of streets from one-way to two-way operation with no net increase in number of traffic lanes
- Removal or relocation of off-street or on-street parking spaces
- Adoption or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs)
- Addition of traffic wayfinding signage
- Rehabilitation and maintenance projects that do not add motor vehicle capacity
- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way
- Addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve non-motorized travel
- Installation of publicly available alternative fuel/charging infrastructure
- Addition of passing lanes, truck climbing lanes, or truck brake-check lanes in rural areas that do not increase overall vehicle capacity along the corridor

1. Recommended Significance Threshold for Transportation Projects

As noted in Section 15064.3 of the CEQA Guidelines, lead agencies for roadway capacity projects have discretion, consistent with CEQA and planning requirements, to choose which metric to use to evaluate transportation impacts. This section recommends considerations for evaluating impacts using vehicle miles traveled. Lead agencies have discretion to choose a threshold of significance for transportation projects as they do for other types of projects. As explained above, Public Resources Code section 21099, subdivision (b)(1), provides that criteria for determining the significance of transportation impacts must promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. (*Id.*; see generally, adopted CEQA Guidelines, § 15064.3, subd. (b) [Criteria for Analyzing Transportation Impacts].) With those goals in mind, OPR prepared and the Agency adopted an appropriate transportation metric.

Whether adopting a threshold of significance, or evaluating transportation impacts on a case-by-case basis, a lead agency should ensure that the analysis addresses:

- Direct, indirect and cumulative effects of the transportation project (CEQA Guidelines, § 15064, subds. (d), (h))
- Near-term and long-term effects of the transportation project (CEQA Guidelines, §§ 15063, subd. (a)(1), 15126.2, subd. (a))
- The transportation project's consistency with state greenhouse gas reduction goals (Pub. Resources Code, § 21099)³⁴
- The impact of the transportation project on the development of multimodal transportation networks (Pub. Resources Code, § 21099)
- The impact of the transportation project on the development of a diversity of land uses (Pub. Resources Code, § 21099)

The CARB Scoping Plan and the CARB Mobile Source Strategy delineate VMT levels required to achieve legally mandated GHG emissions reduction targets. A lead agency should develop a project-level threshold based on those VMT levels, and may apply the following approach:

1. Propose a fair-share allocation of those budgets to their jurisdiction (e.g., by population);

³⁴ The California Air Resources Board has ascertained the limits of VMT growth compatible with California containing greenhouse gas emissions to levels research shows would allow for climate stabilization. (See [The 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target](#) (p. 78, p. 101); [Mobile Source Strategy](#) (p. 37).) CARB's [Updated Final Staff Report on Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets](#) illustrates that the current Regional Transportation Plans and Sustainable Communities Strategies will fall short of achieving the necessary on-road transportation-related GHG emissions reductions called for in the 2017 Scoping Plan (Figure 3, p. 35). Accordingly, OPR recommends not basing GHG emissions or transportation impact analysis for a transportation project solely on consistency with an RTP/SCS.

2. Determine the amount of VMT growth likely to result from background population growth, and subtract that from their “budget”;
3. Allocate their jurisdiction’s share between their various VMT-increasing transportation projects, using whatever criteria the lead agency prefers.

2. Estimating VMT Impacts from Transportation Projects

CEQA requires analysis of a project’s potential growth-inducing impacts. (Pub. Resources Code, § 21100, subd. (b)(5); CEQA Guidelines, § 15126.2, subd. (d).) Many agencies are familiar with the analysis of growth inducing impacts associated with water, sewer, and other infrastructure. This technical advisory addresses growth that may be expected from roadway expansion projects.

Because a roadway expansion project can induce substantial VMT, incorporating quantitative estimates of induced VMT is critical to calculating both transportation and other impacts of these projects. Induced travel also has the potential to reduce or eliminate congestion relief benefits. An accurate estimate of induced travel is needed to accurately weigh costs and benefits of a highway capacity expansion project.

The effect of a transportation project on vehicle travel should be estimated using the “change in total VMT” method described in *Appendix 1*. This means that an assessment of total VMT without the project and an assessment with the project should be made; the difference between the two is the amount of VMT attributable to the project. The assessment should cover the full area in which driving patterns are expected to change. As with other types of projects, the VMT estimation should not be truncated at a modeling or jurisdictional boundary for convenience of analysis when travel behavior is substantially affected beyond that boundary.

Transit and Active Transportation Projects

Transit and active transportation projects generally reduce VMT and therefore are presumed to cause a less-than-significant impact on transportation. This presumption may apply to all passenger rail projects, bus and bus rapid transit projects, and bicycle and pedestrian infrastructure projects. Streamlining transit and active transportation projects aligns with each of the three statutory goals contained in SB 743 by reducing GHG emissions, increasing multimodal transportation networks, and facilitating mixed use development.

Roadway Projects

Reducing roadway capacity (for example, by removing or repurposing motor vehicle travel lanes) will generally reduce VMT and therefore is presumed to cause a less-than-significant impact on transportation. Generally, no transportation analysis is needed for such projects.

Building new roadways, adding roadway capacity in congested areas, or adding roadway capacity to areas where congestion is expected in the future, typically induces additional vehicle travel. For the types of projects previously indicated as likely to lead to additional vehicle travel, an estimate should be made of the change in vehicle travel resulting from the project.

For projects that increase roadway capacity, lead agencies can evaluate induced travel quantitatively by applying the results of existing studies that examine the magnitude of the increase of VMT resulting from a given increase in lane miles. These studies estimate the percent change in VMT for every percent change in miles to the roadway system (i.e., “elasticity”).³⁵ Given that lead agencies have discretion in choosing their methodology, and the studies on induced travel reveal a range of elasticities, lead agencies may appropriately apply professional judgment in studying the transportation effects of a particular project. The most recent major study, estimates an elasticity of 1.0, meaning that every percent change in lane miles results in a one percent increase in VMT.³⁶

To estimate VMT impacts from roadway expansion projects:

1. Determine the total lane-miles over an area that fully captures travel behavior changes resulting from the project (generally the region, but for projects affecting interregional travel look at all affected regions).
2. Determine the percent change in total lane miles that will result from the project.
3. Determine the total existing VMT over that same area.
4. Multiply the percent increase in lane miles by the existing VMT, and then multiply that by the elasticity from the induced travel literature:

$$[\% \text{ increase in lane miles}] \times [\text{existing VMT}] \times [\text{elasticity}] = [\text{VMT resulting from the project}]$$

A National Center for Sustainable Transportation tool can be used to apply this method:

<https://ncst.ucdavis.edu/research/tools>

This method would not be suitable for rural (non-MPO) locations in the state which are neither congested nor projected to become congested. It also may not be suitable for a new road that provides new connectivity across a barrier (e.g., a bridge across a river) if it would be expected to substantially

³⁵ See U.C. Davis, Institute for Transportation Studies (Oct. 2015) *Increasing Highway Capacity Unlikely to Relieve Traffic Congestion*; Boarnet and Handy (Sept. 2014) *Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions*, California Air Resources Board Policy Brief, available at https://www.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_brief.pdf.

³⁶ See Duranton and Turner (2011) *The Fundamental Law of Road Congestion: Evidence from US cities*, available at <http://www.nber.org/papers/w15376>.

shorten existing trips. If it is likely to be substantial, the trips-shortening effect should be examined explicitly.

The effects of roadway capacity on vehicle travel can also be applied at a programmatic level. For example, in a regional planning process the lead agency can use that program-level analysis to streamline later project-level analysis. (See CEQA Guidelines, § 15168.) A program-level analysis of VMT should include effects of the program on land use patterns, and the VMT that results from those land use effects. In order for a program-level document to adequately analyze potential induced demand from a project or program of roadway capacity expansion, lead agencies cannot assume a fixed land use pattern (i.e., a land use pattern that does not vary in response to the provision of roadway capacity). A proper analysis should account for land use investment and development pattern changes that react in a reasonable manner to changes in accessibility created by transportation infrastructure investments (whether at the project or program level).

Mitigation and Alternatives

Induced VMT has the potential to reduce or eliminate congestion relief benefits, increase VMT, and increase other environmental impacts that result from vehicle travel.³⁷ If those effects are significant, the lead agency will need to consider mitigation or alternatives. In the context of increased travel that is induced by capacity increases, appropriate mitigation and alternatives that a lead agency might consider include the following:

- Tolling new lanes to encourage carpools and fund transit improvements
- Converting existing general purpose lanes to HOV or HOT lanes
- Implementing or funding off-site travel demand management
- Implementing Intelligent Transportation Systems (ITS) strategies to improve passenger throughput on existing lanes

Tolling and other management strategies can have the additional benefit of preventing congestion and maintaining free-flow conditions, conferring substantial benefits to road users as discussed above.

G. Analyzing Other Impacts Related to Transportation

While requiring a change in the methodology of assessing transportation impacts, Public Resources Code section 21099 notes that this change “does not relieve a public agency of the requirement to analyze a project’s potentially significant transportation impacts related to air quality, noise, safety, or any other impact associated with transportation.” OPR expects that lead agencies will continue to

³⁷ See National Center for Sustainable Transportation (Oct. 2015) *Increasing Highway Capacity Unlikely to Relieve Traffic Congestion*, available at http://www.dot.ca.gov/newtech/researchreports/reports/2015/10-12-2015-NCST_Brief_InducedTravel_CS6_v3.pdf; see Duranton and Turner (2011) *The Fundamental Law of Road Congestion: Evidence from US cities*, available at <http://www.nber.org/papers/w15376>.

address mobile source emissions in the air quality and noise sections of an environmental document and the corresponding studies that support the analysis in those sections. Lead agencies should continue to address environmental impacts of a proposed project pursuant to CEQA's requirements, using a format that is appropriate for their particular project.

Because safety concerns result from many different factors, they are best addressed at a programmatic level (i.e., in a general plan or regional transportation plan) in cooperation with local governments, metropolitan planning organizations, and, where the state highway system is involved, the California Department of Transportation. In most cases, such an analysis would not be appropriate on a project-by-project basis. Increases in traffic volumes at a particular location resulting from a project typically cannot be estimated with sufficient accuracy or precision to provide useful information for an analysis of safety concerns. Moreover, an array of factors affect travel demand (e.g., strength of the local economy, price of gasoline), causing substantial additional uncertainty. Appendix B of OPR's [General Plan Guidelines](#) summarizes research which could be used to guide a programmatic analysis under CEQA. Lead agencies should note that automobile congestion or delay does not constitute a significant environmental impact (Pub. Resources Code, §21099(b)(2)), and safety should not be used as a proxy for road capacity.

H. VMT Mitigation and Alternatives

When a lead agency identifies a significant impact, it must identify feasible mitigation measures that could avoid or substantially reduce that impact. (Pub. Resources Code, § 21002.1, subd. (a).) Additionally, CEQA requires that an environmental impact report identify feasible alternatives that could avoid or substantially reduce a project's significant environmental impacts.

Indeed, the California Court of Appeal recently held that a long-term regional transportation plan was deficient for failing to discuss an alternative which could significantly reduce total vehicle miles traveled. In *Cleveland National Forest Foundation v. San Diego Association of Governments, et al.* (2017) 17 Cal.App.5th 413, the court found that omission "inexplicable" given the lead agency's "acknowledgment in its Climate Action Strategy that the state's efforts to reduce greenhouse gas emissions from on-road transportation will not succeed if the amount of driving, or vehicle miles traveled, is not significantly reduced." (*Cleveland National Forest Foundation, supra*, 17 Cal.App.5th at p. 436.) Additionally, the court noted that the project alternatives focused primarily on congestion relief even though "the [regional] transportation plan is a long-term and congestion relief is not necessarily an effective long-term strategy." (*Id.* at p. 437.) The court concluded its discussion of the alternatives analysis by stating: "Given the acknowledged long-term drawbacks of congestion relief alternatives, there is not substantial evidence to support the EIR's exclusion of an alternative focused primarily on significantly reducing vehicle trips." (*Ibid.*)

Several examples of potential mitigation measures and alternatives to reduce VMT are described below. However, the selection of particular mitigation measures and alternatives are left to the discretion of

the lead agency, and mitigation measures may vary, depending on the proposed project and significant impacts, if any. Further, OPR expects that agencies will continue to innovate and find new ways to reduce vehicular travel.

Potential measures to reduce vehicle miles traveled include, but are not limited to:

- Improve or increase access to transit.
- Increase access to common goods and services, such as groceries, schools, and daycare.
- Incorporate affordable housing into the project.
- Incorporate neighborhood electric vehicle network.
- Orient the project toward transit, bicycle and pedestrian facilities.
- Improve pedestrian or bicycle networks, or transit service.
- Provide traffic calming.
- Provide bicycle parking.
- Limit or eliminate parking supply.
- Unbundle parking costs.
- Provide parking cash-out programs.
- Implement roadway pricing.
- Implement or provide access to a commute reduction program.
- Provide car-sharing, bike sharing, and ride-sharing programs.
- Provide transit passes.
- Shifting single occupancy vehicle trips to carpooling or vanpooling, for example providing ride-matching services.
- Providing telework options.
- Providing incentives or subsidies that increase the use of modes other than single-occupancy vehicle.
- Providing on-site amenities at places of work, such as priority parking for carpools and vanpools, secure bike parking, and showers and locker rooms.
- Providing employee transportation coordinators at employment sites.
- Providing a guaranteed ride home service to users of non-auto modes.

Notably, because VMT is largely a regional impact, regional VMT-reduction programs may be an appropriate form of mitigation. In lieu fees have been found to be valid mitigation where there is both a commitment to pay fees and evidence that mitigation will actually occur. (*Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 140-141; *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727–728.) Fee programs are particularly useful to address cumulative impacts. (CEQA Guidelines, § 15130, subd. (a)(3) [a “project’s incremental contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact”].) The mitigation program must undergo CEQA evaluation, either on the program as a whole, or the in-lieu fees or other mitigation must be evaluated

on a project-specific basis. (*California Native Plant Society v. County of El Dorado* (2009) 170 Cal.App.4th 1026.) That CEQA evaluation could be part of a larger program, such as a regional transportation plan, analyzed in a Program EIR. (CEQA Guidelines, § 15168.)

Examples of project alternatives that may reduce vehicle miles traveled include, but are not limited to:

- Locate the project in an area of the region that already exhibits low VMT.
- Locate the project near transit.
- Increase project density.
- Increase the mix of uses within the project or within the project's surroundings.
- Increase connectivity and/or intersection density on the project site.
- Deploy management strategies (e.g., pricing, vehicle occupancy requirements) on roadways or roadway lanes.

Appendix 1. Considerations About Which VMT to Count

Consistent with the obligation to make a good faith effort to disclose the environmental consequences of a project, lead agencies have discretion to choose the most appropriate methodology to evaluate project impacts.³⁸ A lead agency can evaluate a project's effect on VMT in numerous ways. The purpose of this document is to provide technical considerations in determining which methodology may be most useful for various project types.

Background on Estimating Vehicle Miles Traveled

Before discussing specific methodological recommendations, this section provides a brief overview of modeling and counting VMT, including some key terminology.

Here is an illustrative example of some methods of estimating vehicle miles traveled. Consider the following hypothetical travel day (all by automobile):

1. Residence to Coffee Shop
2. Coffee Shop to Work
3. Work to Sandwich Shop
4. Sandwich Shop to Work
5. Work to Residence
6. Residence to Store
7. Store to Residence

Trip-based assessment of a project's effect on travel behavior counts VMT from individual trips to and from the project. It is the most basic, and traditionally the most common, method of counting VMT. A trip-based VMT assessment of the residence in the above example would consider segments 1, 5, 6 and 7. For residential projects, the sum of home-based trips is called *home-based* VMT.

A *tour-based* assessment counts the entire home-back-to-home tour that includes the project. A tour-based VMT assessment of the residence in the above example would consider segments 1, 2, 3, 4, and 5 in one tour, and 6 and 7 in a second tour. A tour-based assessment of the workplace would include segments 1, 2, 3, 4, and 5. Together, all tours comprise *household* VMT.

³⁸ The California Supreme Court has explained that when an agency has prepared an environmental impact report:

[T]he issue is not whether the [lead agency's] studies are irrefutable or whether they could have been better. The relevant issue is only whether the studies are sufficiently credible to be considered as part of the total evidence that supports the [lead agency's] finding[.]

(*Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 409; see also *Eureka Citizens for Responsible Gov't v. City of Eureka* (2007) 147 Cal.App.4th 357, 372.)

Both trip- and tour-based assessments can be used as measures of transportation efficiency, using denominators such as per capita, per employee, or per person-trip.

Trip- and Tour-based Assessment of VMT

As illustrated above, a tour-based assessment of VMT is a more complete characterization of a project's effect on VMT. In many cases, a project affects travel behavior beyond the first destination. The location and characteristics of the home and workplace will often be the main drivers of VMT. For example, a residential or office development located near high quality transit will likely lead to some commute trips utilizing transit, affecting mode choice on the rest of the tour.

Characteristics of an office project can also affect an employee's VMT beyond the work tour. For example, a workplace located at the urban periphery, far from transit, can require an employee to own a car, which in turn affects the entirety of an employee's travel behavior and VMT. For this reason, when estimating the effect of an office development on VMT, it may be appropriate to consider total employee VMT if data and tools, such as tour-based models, are available. This is consistent with CEQA's requirement to evaluate both direct and *indirect* effects of a project. (See CEQA Guidelines, § 15064, subd. (d)(2).)

Assessing Change in Total VMT

A third method, estimating the *change in total VMT* with and without the project, can evaluate whether a project is likely to divert existing trips, and what the effect of those diversions will be on total VMT. This method answers the question, "What is the net effect of the project on area VMT?" As an illustration, assessing the total change in VMT for a grocery store built in a food desert that diverts trips from more distant stores could reveal a net VMT reduction. The analysis should address the full area over which the project affects travel behavior, even if the effect on travel behavior crosses political boundaries.

Using Models to Estimate VMT

Travel demand models, sketch models, spreadsheet models, research, and data can all be used to calculate and estimate VMT (see Appendix F of the [preliminary discussion draft](#)). To the extent possible, lead agencies should choose models that have sensitivity to features of the project that affect VMT. Those tools and resources can also assist in establishing thresholds of significance and estimating VMT reduction attributable to mitigation measures and project alternatives. When using models and tools for those various purposes, agencies should use comparable data and methods, in order to set up an "apples-to-apples" comparison between thresholds, VMT estimates, and VMT mitigation estimates.

Models can work together. For example, agencies can use travel demand models or survey data to estimate existing trip lengths and input those into sketch models such as CalEEMod to achieve more

accurate results. Whenever possible, agencies should input localized trip lengths into a sketch model to tailor the analysis to the project location. However, in doing so, agencies should be careful to avoid double counting if the sketch model includes other inputs or toggles that are proxies for trip length (e.g., distance to city center). Generally, if an agency changes any sketch model defaults, it should record and report those changes for transparency of analysis. Again, trip length data should come from the same source as data used to calculate thresholds to be sure of an “apples-to-apples” comparison.

Additional background information regarding travel demand models is available in the California Transportation Commission’s [“2010 Regional Transportation Plan Guidelines,”](#) beginning at page 35.

Appendix 2. Induced Travel: Mechanisms, Research, and Additional Assessment Approaches

Induced travel occurs where roadway capacity is expanded in an area of present or projected future congestion. The effect typically manifests over several years. Lower travel times make the modified facility more attractive to travelers, resulting in the following trip-making changes:

- **Longer trips.** The ability to travel a long distance in a shorter time increases the attractiveness of destinations that are farther away, increasing trip length and vehicle travel.
- **Changes in mode choice.** When transportation investments are devoted to reducing automobile travel time, travelers tend to shift toward automobile use from other modes, which increases vehicle travel.
- **Route changes.** Faster travel times on a route attract more drivers to that route from other routes, which can increase or decrease vehicle travel depending on whether it shortens or lengthens trips.
- **Newly generated trips.** Increasing travel speeds can induce additional trips, which increases vehicle travel. For example, an individual who previously telecommuted or purchased goods on the internet might choose to accomplish those tasks via automobile trips as a result of increased speeds.
- **Land Use Changes.** Faster travel times along a corridor lead to land development farther along that corridor; that new development generates and attracts longer trips, which increases vehicle travel. Over several years, this induced growth component of induced vehicle travel can be substantial, making it critical to include in analyses.

Each of these effects has implications for the total amount of vehicle travel. These effects operate over different time scales. For example, changes in mode choice might occur immediately, while land use changes typically take a few years or longer. CEQA requires lead agencies to analyze both short-term and long-term effects.

Evidence of Induced Vehicle Travel. A large number of peer reviewed studies³⁹ have demonstrated a causal link between highway capacity increases and VMT increases. Many provide quantitative estimates of the magnitude of the induced VMT phenomenon. Collectively, they provide high quality evidence of the existence and magnitude of the induced travel effect.

³⁹ See, e.g., Boarnet and Handy (Sept. 2014) Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions, California Air Resources Board Policy Brief, available at https://www.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_brief.pdf; National Center for Sustainable Transportation (Oct. 2015) *Increasing Highway Capacity Unlikely to Relieve Traffic Congestion*, available at http://www.dot.ca.gov/research/researchreports/reports/2015/10-12-2015-NCST_Brief_InducedTravel_CS6_v3.pdf.

Most of these studies express the amount of induced vehicle travel as an “elasticity,” which is a multiplier that describes the additional vehicle travel resulting from an additional lane mile of roadway capacity added. For example, an elasticity of 0.6 would signify an 0.6 percent increase in vehicle travel for every 1.0 percent increase in lane miles. Many of these studies distinguish “short run elasticity” (increase in vehicle travel in the first few years) from “long run elasticity” (increase in vehicle travel beyond the first few years). Long run elasticity is larger than short run elasticity, because as time passes, more of the components of induced vehicle travel materialize. Generally, short run elasticity can be thought of as excluding the effects of land use change, while long run elasticity includes them. Most studies find a long run elasticity between 0.6 and just over 1.0,⁴⁰ meaning that every increase in lanes miles of one percent leads to an increase in vehicle travel of 0.6 to 1.0 percent. The most recent major study finds the elasticity of vehicle travel by lanes miles added to be 1.03; in other words, each percent increase in lane miles results in a 1.03 percent increase in vehicle travel.⁴¹ (An elasticity greater than 1.0 can occur because new lanes induce vehicle travel that spills beyond the project location.) In CEQA analysis, the long-run elasticity should be used, as it captures the full effect of the project rather than just the early-stage effect.

Quantifying Induced Vehicle Travel Using Models. Lead agencies can generally achieve the most accurate assessment of induced vehicle travel resulting from roadway capacity increasing projects by applying elasticities from the academic literature, because those estimates include vehicle travel resulting from induced land use. If a lead agency chooses to use a travel demand model, additional analysis would be needed to account for induced land use. This section describes some approaches to undertaking that additional analysis.

Proper use of a travel demand model can capture the following components of induced VMT:

- Trip length (generally increases VMT)
- Mode shift (generally shifts from other modes toward automobile use, increasing VMT)
- Route changes (can act to increase or decrease VMT)
- Newly generated trips (generally increases VMT)
 - Note that not all travel demand models have sensitivity to this factor, so an off-model estimate may be necessary if this effect could be substantial.

However, estimating long-run induced VMT also requires an estimate of the project’s effects on land use. This component of the analysis is important because it has the potential to be a large component of

⁴⁰ See Boarnet and Handy (Sept. 2014) [Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions](https://www.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_brief.pdf), California Air Resources Board Policy Brief, p. 2, available at https://www.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_brief.pdf.

⁴¹ Duranton and Turner (2011) *The Fundamental Law of Road Congestion: Evidence from US cities*, available at <http://www.nber.org/papers/w15376>.

the overall induced travel effect. Options for estimating and incorporating the VMT effects that are caused by the subsequent land use changes include:

1. *Employ an expert panel.* An expert panel could assess changes to land use development that would likely result from the project. This assessment could then be analyzed by the travel demand model to assess effects on vehicle travel. Induced vehicle travel assessed via this approach should be verified using elasticities found in the academic literature.
2. *Adjust model results to align with the empirical research.* If the travel demand model analysis is performed without incorporating projected land use changes resulting from the project, the assessed vehicle travel should be adjusted upward to account for those land use changes. The assessed VMT after adjustment should fall within the range found in the academic literature.
3. *Employ a land use model, running it iteratively with a travel demand model.* A land use model can be used to estimate the land use effects of a roadway capacity increase, and the traffic patterns that result from the land use change can then be fed back into the travel demand model. The land use model and travel demand model can be iterated to produce an accurate result.

A project which provides new connectivity across a barrier, such as a new bridge across a river, may provide a shortened path between existing origins and destinations, thereby shortening existing trips. In rare cases, this trip-shortening effect might be substantial enough to reduce the amount of vehicle travel resulting from the project below the range found in the elasticities in the academic literature, or even lead a net reduction in vehicle travel overall. In such cases, the trip-shortening effect could be examined explicitly.

Whenever employing a travel demand model to assess induced vehicle travel, any limitation or known lack of sensitivity in the analysis that might cause substantial errors in the VMT estimate (for example, model insensitivity to one of the components of induced VMT described above) should be disclosed and characterized, and a description should be provided on how it could influence the analysis results. A discussion of the potential error or bias should be carried into analyses that rely on the VMT analysis, such as greenhouse gas emissions, air quality, energy, and noise.

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**Attachment C – Infill Development in San Diego
County Technical Memorandum**

Memorandum

Date: October 29, 2021

To: Jacob Armstrong and Damon Davis, County of San Diego

From: Katy Cole, Andrew Scher, Jon Stanton

Subject: Infill Areas in Unincorporated San Diego County

SD21-0407

Introduction

The County of San Diego is exploring how infill development will influence the process for evaluating transportation VMT impacts consistent with CEQA Guidelines Section 15064.3: *Determining the Significance of Transportation Impacts*. On September 27, 2013, Governor Jerry Brown signed Senate Bill 743 ("SB 743") into law changing the impact criteria for transportation impact analysis as part of CEQA compliance. The law and subsequent updates to the CEQA Guidelines Section 15064.3 eliminates automobile delay as a basis for determining significant impacts under CEQA. SB 743 includes the following two legislative intent statements:

1. Ensure that the environmental impacts of traffic, such as noise, air pollution, and safety concerns continue to be properly addressed and mitigated through the California Environmental Quality Act.
2. More appropriately balance the needs of congestion management with *statewide goals related to infill development*, promotion of public health through active transportation, and reduction of GHG emissions.

As part of the implementation of SB 743, the California Attorney General's Office of Planning and Research (OPR) produced the Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018). The technical advisory contains suggestions on evaluating transportation impacts including information on when a VMT analysis is necessary and suggestions on characteristics of projects that can be screened from performing analysis. In consideration of SB 743's legislative intent related to infill development and the OPR information about screening projects that meet various characteristics, the County set out to understand the locations within the unincorporated area that may be considered an infill location. This information could be used

to help inform the VMT transportation analysis either as a simple project consideration or to help with future county planning efforts.

To understand what may be considered “infill development” in the unincorporated areas of San Diego County we evaluated multiple land use and transportation network variables to create a quantitative definition for “infill development” in the County. The following sections summarize a methodology for selecting values that define infill development and reflect the intent of the law.

Qualitative Definitions of “Infill” Development

To identify areas where new development would be largely considered as “infill”, the term “infill” must be defined, then quantitative values set that would meet the definition of infill.

Infill development patterns have been studied for decades by researchers and each research study and paper has provided varying definitions for “infill” development. *Developing Site Plan Standards for Infill* (Center for Urban Policy Research, Edward J. Bloustein School of Planning & Public Policy Rutgers, The State University of New Jersey New Brunswick, New Jersey) provides a summary the wide variety of definitions for “infill” as shown on Exhibit 1:

TABLE 1.1
Illustrative Definitions of Infill

1. "The development of new housing or other uses on scattered vacant sites in a built-up area." (Moskowitz and Lindbloom 2004.)
2. Infill is the "development of vacant or remnant lands passed over by previous development in urban areas." Redevelopment is "the act or process of redeveloping; esp.: renovation of a blighted area. Replacement, remodeling, or reuse of existing structures to accommodate new development." (Oak, Inc. 1999.)
3. "The construction of new buildings on vacant lots, filling a "hole" in the built environment." (Downtown Brookings, Inc. 2004.)
4. "The construction of new buildings along the traditional commercial street. These new buildings relate harmoniously with the older buildings which surround them. Since these buildings are often constructed on vacant lots, thus filling a 'hole' in the street, they are called infill." (City of San Bernardino 2002.)
5. Infill is "the new development of vacant, abandoned, passed over, or underutilized land within built-up areas of existing communities, where infrastructure is already in place. Infill also includes redevelopment of lots in those areas. Redevelopment is described as encompassing construction in previously developed areas, which may include the demolition of existing structures and building new structures or the substantial renovation of existing structures, often changing form and function." (State of Maryland 2001.)
6. "The creative recycling of vacant or underutilized lands within cities and suburbs." (Northeast-Midwest Institute and Congress for New Urbanism 2001.)
7. "Infill development refers to construction of new housing, workplaces, shops, and other facilities within existing urban or suburban areas. This development can be of several different types: building on vacant lots; reuse of underutilized sites, such as parking lots and old industrial sites; and rehabilitation or expansion of existing buildings." (Wheeler 2002.)
8. An infill lot is defined as "any lot that is bounded on one or more sides by lots with existing residences, in an established neighborhood." (Village of Glenview 2003.)
9. "Infill is development that occurs on vacant or abandoned parcels in an otherwise built-up portion of the city." (City of Frederick 2002.)
10. "Urban infill and redevelopment area means an area or areas designated by a local government where (a) public services such as water and wastewater, transportation, schools, and recreation are already available or are scheduled to be provided in an adopted five-year schedule of capital improvements; (b) the area (or one or more neighborhoods within the area) suffers from pervasive poverty, unemployment, and general distress as defined by s. 290.0058 [1998 Florida statutes, chapter 290, section 0058]; (c) the area exhibits a proportion of properties that are substandard, overcrowded, dilapidated, vacant or abandoned, or functionally obsolete that is higher than the average for the local government; (d) more than 50 percent of the area is within one-quarter mile of a transit stop, or a sufficient number of such transit stops will be made available concurrent with the designation; and (e) the area includes or is adjacent to community redevelopment areas, brownfields, enterprise zones, or Main Street programs, or has been designated by the state or federal government as an urban redevelopment, revitalization, or infill area under empowerment zone, enterprise community, or brownfield showcase community programs or similar programs." (State of Florida 2005.)

TABLE 1.1, continued

11. "Developing on empty lots of land within an urban area rather than on new undeveloped land outside the city or town." (State of Massachusetts n.d.)
12. "In housing construction, the process of developing open areas within an established area before developing outside the established area." (Rosner and Rosner 1996.)
13. "Development on vacant lots or through redevelopment to create additional new residential units." (City of Burlington 1994.)
14. "The development of vacant land that was bypassed by earlier waves of development and is now largely surrounded by developed land." (Clark County Board of County Commissioners 2005.)
15. "Development that occurs on a site after completion of the initial development of the area." (Calgary Area, Inc. 1999.)
16. "Infill development is simply redevelopment within existing developments." (Abalos 2003.)
17. "Residential or nonresidential development that occurs on vacant sites scattered throughout the more intensely developed areas of municipalities. Generally, these sites are vacant because they were once considered of insufficient size for development, because an existing building located on the site was demolished, or because there were other, more desirable sites for development." (Schultz and Kasen 1984.)
18. Infill is "development on vacant sites in urbanized areas and redevelopment of areas contiguous to urban development where all services and facilities are projected to have capacity to accommodate additional demand." (Davis 2004.)
19. Infill development is "the process of developing vacant or underused parcels within existing urban areas that are already largely developed." (Municipal Research and Services Center of Washington 1997.)
20. "Infill is the creative recycling of vacant or underutilized lands within cities and suburbs. Successful infill often includes new development on vacant lots within urbanized areas, redevelopment of underused buildings and sites, and the rehabilitation of historic buildings for new uses." (Northeast-Midwest Institute and Congress for New Urbanism 2001.)
21. "Unlike reuse, infill occurs on smaller tracts of vacant land in otherwise developed areas." (Envision Utah 2002.)
22. Infill means "the development of new housing or other buildings on scattered vacant lots in a built-up area." Redevelopment means "the removal or replacement or adaptive reuse of an existing structure or of land from which previous improvements have been removed, including the conservation or rehabilitation of any structure." (New Jersey State Planning Commission 2001.)
23. Infill "is defined as development that occurs on previously developed lots within existing developed areas." (Nisenson 2005.)

Infill development is defined by OPR as "...building within unused and underutilized lands within existing development patterns, typically but not exclusively within urban areas." (OPR)¹. A definition for Infill is also codified in California's Public Resources Code (PRC) §21061.3:

"Infill site" means a site in an urbanized area that meets either of the following criteria:

(a) The site has not been previously developed for urban uses and both of the following apply:

(1) The site is immediately adjacent to parcels that are developed with qualified urban uses, or at least 75 percent of the perimeter of the site adjoins parcels that are developed with qualified urban uses, and the remaining 25 percent of the site adjoins parcels that have previously been developed for qualified urban uses.

(2) No parcel within the site has been created within the past 10 years unless the parcel was created as a result of the plan of a redevelopment agency.

(b) The site has been previously developed for qualified urban uses.²

Both definitions refer to development of unused land or redevelopment of land within urban areas. Therefore, if urban areas can be geographically defined within the Unincorporated County, most development within those geographic areas would meet the above standards of having adjacent urban uses and be considered infill. In addition, "urban areas" as referenced by OPR are referring the US Census Bureau's definition of infill. For the 2020 Census, the following documentation is provided on the definition of urban:

*The Census Bureau proposes to begin the delineation process by identifying and aggregating contiguous census blocks each having a housing unit density of at least 385 housing units per square mile. This aggregation of continuous census blocks would be known as the "initial urban area core." The initial urban area core must encompass at least 385 housing units (consistent with the requirement for at least 1,000 people in the 2010 criteria).*³

¹ OPR: <https://opr.ca.gov/planning/land-use/infill-development/>

² PRC §21061.3:

https://leginfo.ca.gov/faces/codes_displaySection.xhtml?lawCode=PRC§ionNum=21061.3

³ <https://www.federalregister.gov/documents/2021/02/19/2021-03412/urban-areas-for-the-2020-census-proposed-criteria#p-44>

Early efforts to define urban areas began with characterizing urban sprawl in the 1990's (Pendall 1999)⁴, but the first literature that considered a comprehensive set of variables to define urban areas was Cervero & Kockelman (1997) who developed the '3 D's'; Density, Diversity, and Design. The 3 D's included such built environment variables as population density, mix of land uses, and the design of infrastructure (such as street intersection density)⁵. These would be updated by Ewing and Cervero (2010) to 5 D's; adding Destination accessibility and Distance to transit⁶. The 5 D's have become the framework for subsequent literature which has further refined and added variables that compose each of the D's.

Defining places was further refined by Salon (2015)⁷ and Frost (2018)⁸. For example, Salon (2015) defined places such as: Central City, Urban, Suburban, Rural-in-Urban, and Rural Places. Many variables representing the built environment were collected based on their relationship and aggregated into key 'factors' representing the 'Ds'.

Creating Quantitative Values for Infill

The analysis to develop an infill definition and criteria was based on the socioeconomic data from the San Diego Association of Governments (SANDAG) Activity-Based Model (ABM) Series 13. The socioeconomic data is provided by traffic analysis zone (TAZ). The core concept of the three 'Ds' and factors provides a framework for selecting appropriate variables and setting thresholds based on the literature. The following data was compiled into maps and evaluated as part of the process to define infill:

- Population density
- Housing density
- Employment density
- Intersection density
- Access to jobs within a 15 mile radius
- Access to shopping/restaurants within a one-mile radius

⁴ Pendall, R. (1999). Do land-use controls cause sprawl? *Environment and Planning B: Planning and Design*, 26(4), 555–571. <https://doi.org/10.1068/b260555>

⁵ Cervero, R., & Kockelman, K. (1997). Travel demand and the 3Ds: Density, diversity, and design. *Transportation Research Part D: Transport and Environment*, 2(3), 199–219. [https://doi.org/10.1016/S1361-9209\(97\)00009-6](https://doi.org/10.1016/S1361-9209(97)00009-6)

⁶ Ewing, R., & Cervero, R. (2010). Travel and the Built Environment: A Meta-Analysis. *Journal of the American Planning Association*, 76(3), 265–294. <https://doi.org/10.1080/01944361003766766>

⁷ Salon, D. (2015). Heterogeneity in the relationship between the built environment and driving: Focus on neighborhood type and travel purpose. *Research in Transportation Economics*, 52, 34–45. <https://doi.org/10.1016/j.retrec.2015.10.008>

⁸ Frost, A. R. (2017). Quantifying the sustainability performance of urban form in California / by Alexander Rijiro Frost. San Diego State University.

Maps of all metrics that were studied as part of defining the infill definition are attached as **Figures 1-13**.

Based on review of each of these maps and the literature review, the following data was considered the largest predictor for “infill” and the specific criteria for each is defined as follows:

1. **Household density.** Household density above 385 housing units/square mile was selected based on the US Census definition for urban area.⁹ Household density fulfills the density factor. Figure 1 below (and attached in higher resolution) shows Household Density above 385 units/square mile in the Unincorporated County.

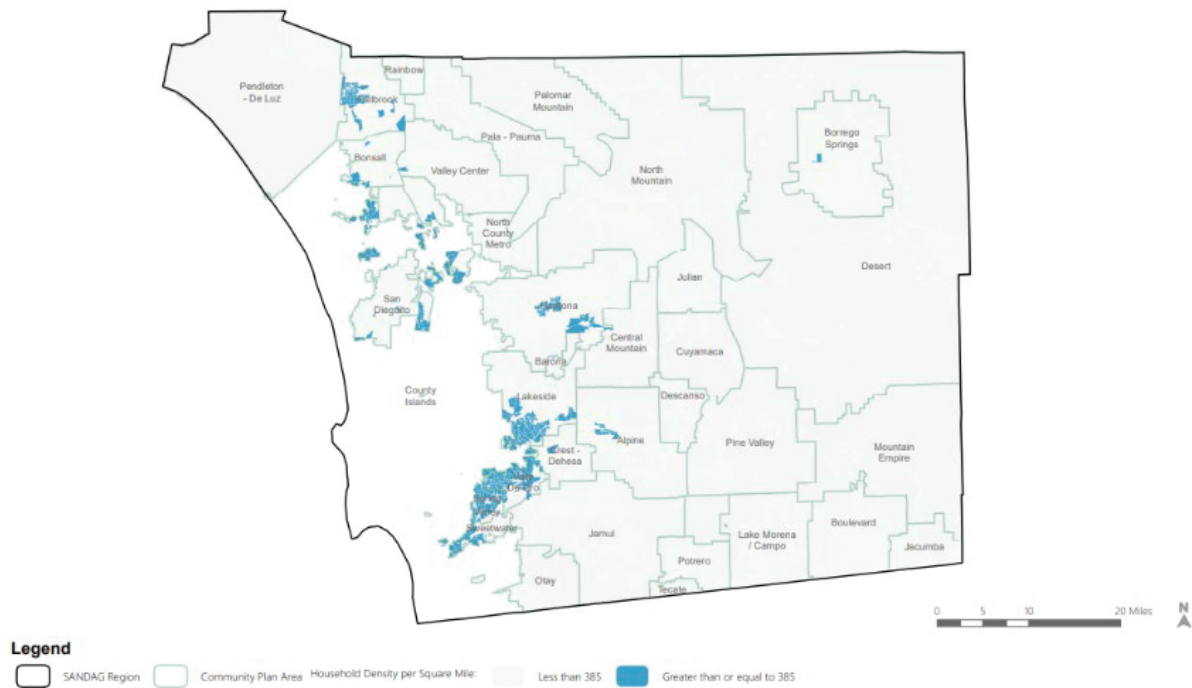


Figure 1: Household Density in Unincorporated San Diego County

⁹ <https://www.federalregister.gov/d/2021-03412/p-44>

2. **Intersection density.** Intersection density above 128 intersections/square mile matches Frost (2018) average value for 'Urban Places'⁷. Intersection density fulfills the design factor. Figure 2 below (and attached in higher resolution) shows Intersection Density above 128 intersections/square mile in the Unincorporated County.

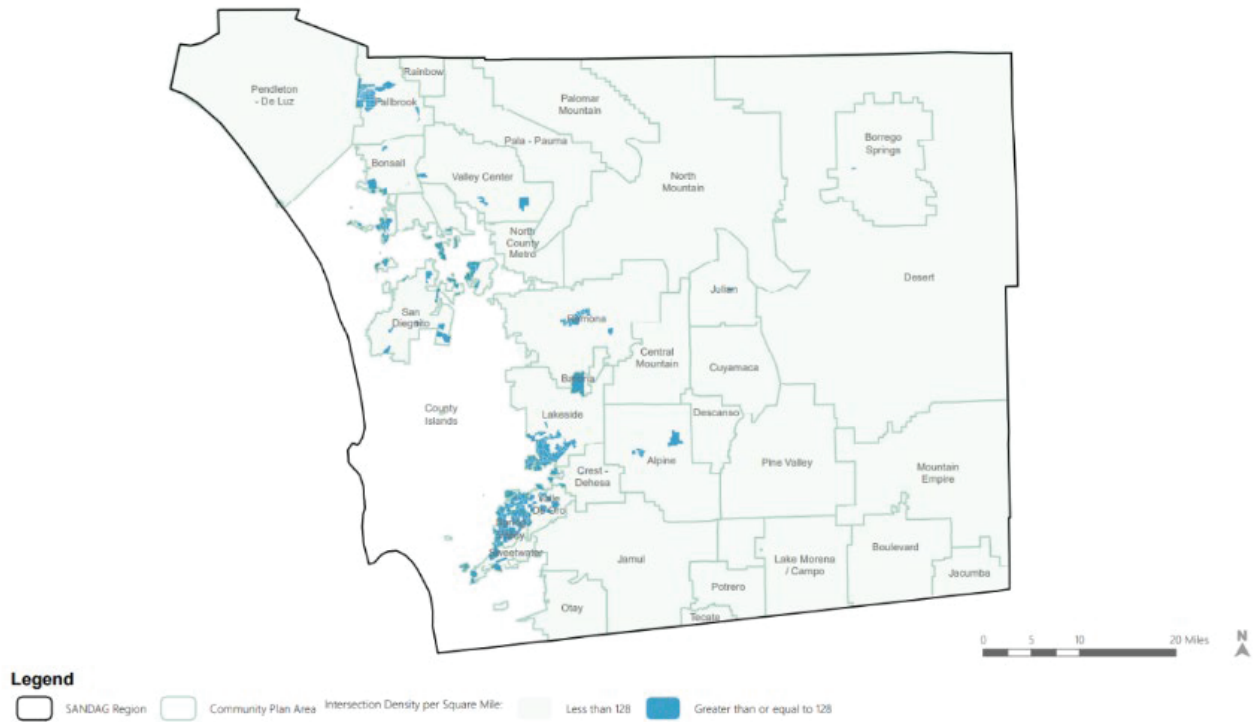


Figure 2: Intersection Density in Unincorporated San Diego County

3. **Jobs Accessibility.**

Job Accessibility of 12.73 is the average value for local employment accessibility in Salon (2014).⁶ Jobs accessibility is measured as an inverse distance-weighted sum of jobs within a 5-mile radius. The current variable used for jobs accessibility for Unincorporated County areas uses an inverse distance-weighted sum for areas within a 15-mile radius. Jobs accessibility fulfills the destination accessibility factor, and more broadly the diversity factor. Figure 3 shows Jobs Accessibility above 12.73 in the Unincorporated County.

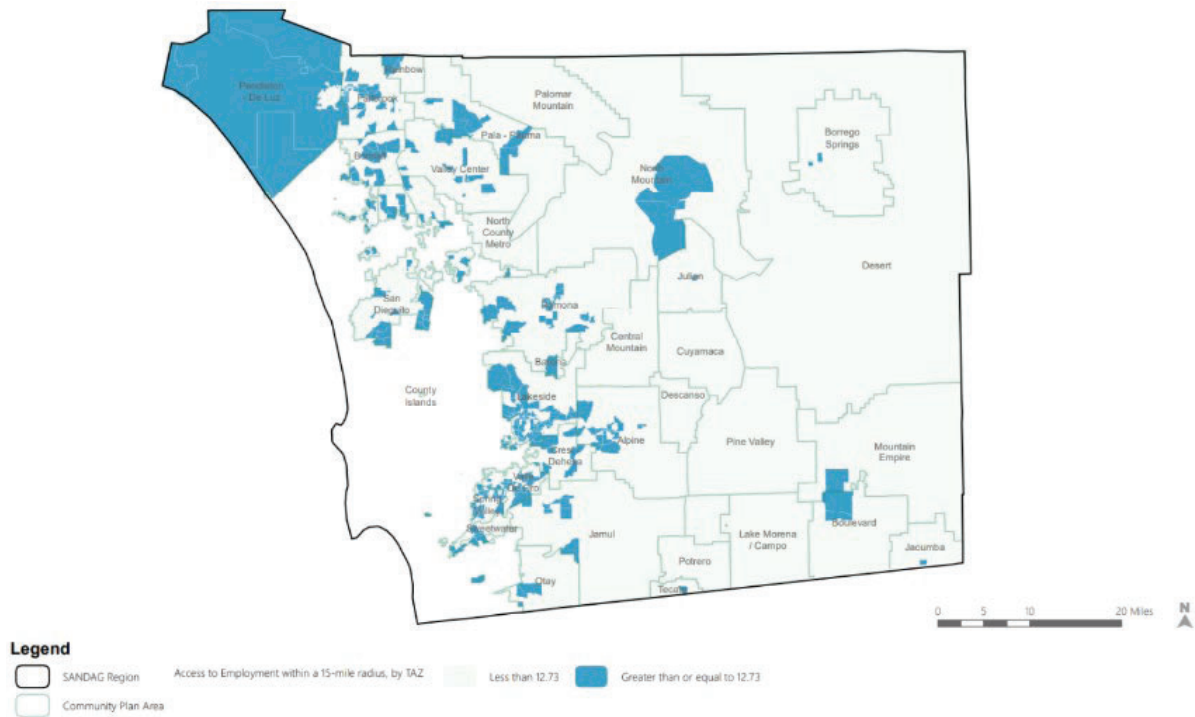


Figure 1: Jobs Accessibility in Unincorporated San Diego County

These variables, while limited compared to the number used in literature, are appropriate in representing the core aspects of the three D's and are among the largest contributing variables to their respective factors. Using the above metrics and cutoff values for Unincorporated County areas creates a narrow selection of geographic areas that are visually and intuitively associated with urban development. Development in dense areas with high job accessibility support the three D's, leading to more diversity in land use, demand for multimodal infrastructure, and shorter vehicle trips which reduce greenhouse gasses.

Results

Applying Infill Values

The above values were used to categorize Traffic Analysis Zones (TAZs) in the Unincorporated County. Out of 1,104 TAZs that lie within the Unincorporated areas of the County, 138 meet the above criteria for household density, intersection density, and jobs accessibility. **Figure 4** shows a map of TAZs that meet the thresholds for urban places and infill in blue.

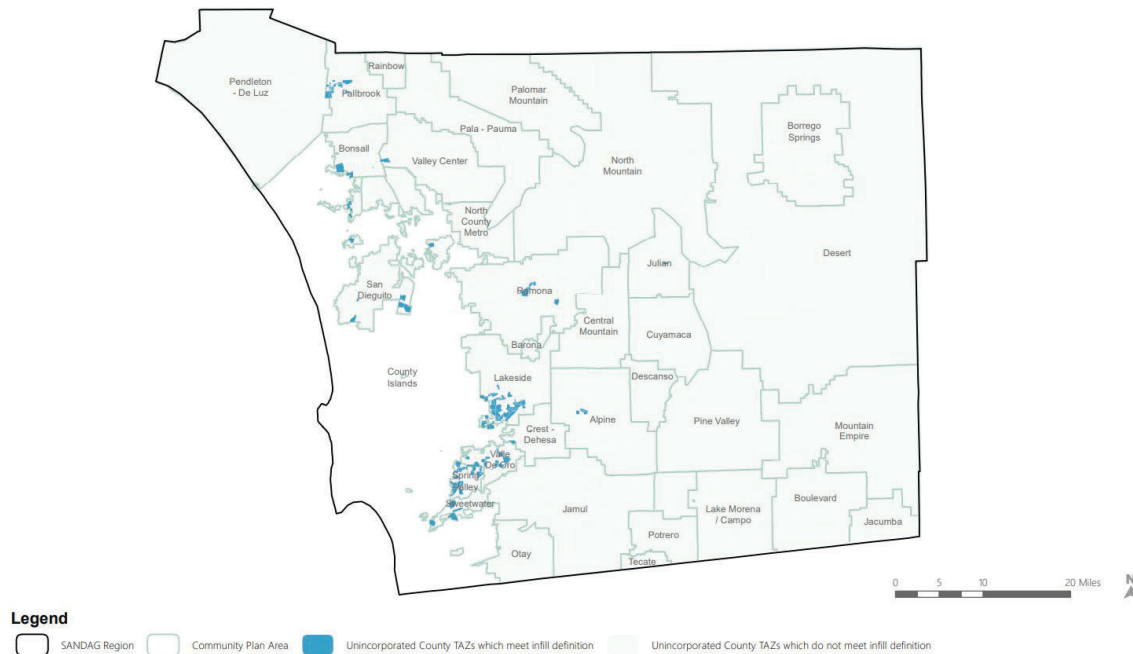


Figure 2: Infill Areas in the Unincorporated San Diego County

The areas that meet the infill definition generally align with intuitive concepts of urban areas. These locations are close to incorporated cities and within the sphere of development for urbanized San Diego. Specifically, core areas of Fallbrook, San Diegoito, Bonsall, Ramona (along Main Street), Lakeside, Valle De Oro, Spring Valley, Alpine, and Sweetwater all meet the definition.

These areas meet the household and intersection density requirements, indicating a certain level of development and compactness to development. There is reasonable access to jobs, and jobs are close enough to be potentially accessible to alternative modes of transportation. Further, developments that occur in these areas would likely meet definitions of infill – being adjacent to urban uses or located in an area with majority urban uses.

Other Considerations

The analysis looked at a variety of other considerations as follows:

- ***Are there infill areas in high fire hazard areas?*** – **Figure 5** displays the results of overlaying the fire severity with the infill areas based on the definition in this technical memorandum. The majority of infill areas are outside of high and very high fire severity zones.
- ***How do the infill areas align with Senate Bill 9 Urbanized Areas?*** – **Figure 6** displays the results of overlaying the SB 9 Urbanized Areas with the infill areas based on the definition in this technical memorandum. All infill areas fall within the SB 9 Urbanized Areas, with the exception of one small area within the Valley Center Community Plan. SB 9 is legislation that was signed into law on September 16, 2021 that allows for the ministerial approval of housing applications that split a parcel into two separate parcels, each parcel with 2 residential units under specific conditions. For housing proposals in an unincorporated area, the development must be located within a US Census Bureau Urbanized Area.
- ***How do the infill areas align with SB 330 Affected Census Designated Places (CDPs)?*** – **Figure 7** displays the results of overlaying the SB 330 Affected CDPs with the infill the infill areas based on the definition in this technical memorandum. Many of the infill areas fall within the SB 330 Affected CDPs, with the exception of infill designations in Fallbrook, Bonsall, Valley Center, North County Metro, San Dieguito, Ramona, Lakeside, and Spring Valley. SB 330 is legislation that was signed into law on October 9, 2019 and makes changes to the Permit Streamlining Act and the Housing Accountability Act and establishes the Housing Crisis Act.
- ***Are there other options for expanding and “smoothing” out the infill areas?*** – The County team was curious to explore other options for displaying the infill areas to smooth out the results and provide a larger infill context. Fehr & Peers and County staff discussed two options that are displayed on **Figures 14 and 15**.
 1. Figure 14 displays an option to include any County Village area that contains an infill area. The map shows the original infill areas in blue and the Village area in green.
 2. Figure 15 displays an option in include any TAZ that is adjacent to an infill area. The map shows the original infill areas in blue and the adjacent TAZs in green.

Conclusion

Using the chosen key variables/analysis to define urban places provides a representation of urban areas in the Unincorporated County. These variables provide the foundation for defining infill locations within the Unincorporated County. With guidance from County counsel, the County could use this information to establish a new SB 743 related screening criteria and allow the locations to be screened from performing VMT analysis. This would require evidence to support the determination that projects in these locations would have a less than significant transportation impact and meet the intent of SB 743. Another option is that the County could use

Infill Areas in Unincorporated San Diego County

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this information as a consideration when evaluating a project and use it to help make the case for adopting a statement of overriding considerations for a project that has a significant VMT impact. Additional County Counsel input is recommended to determine the implications of these options.

Figure 10: Employment Accessibility by TAZ

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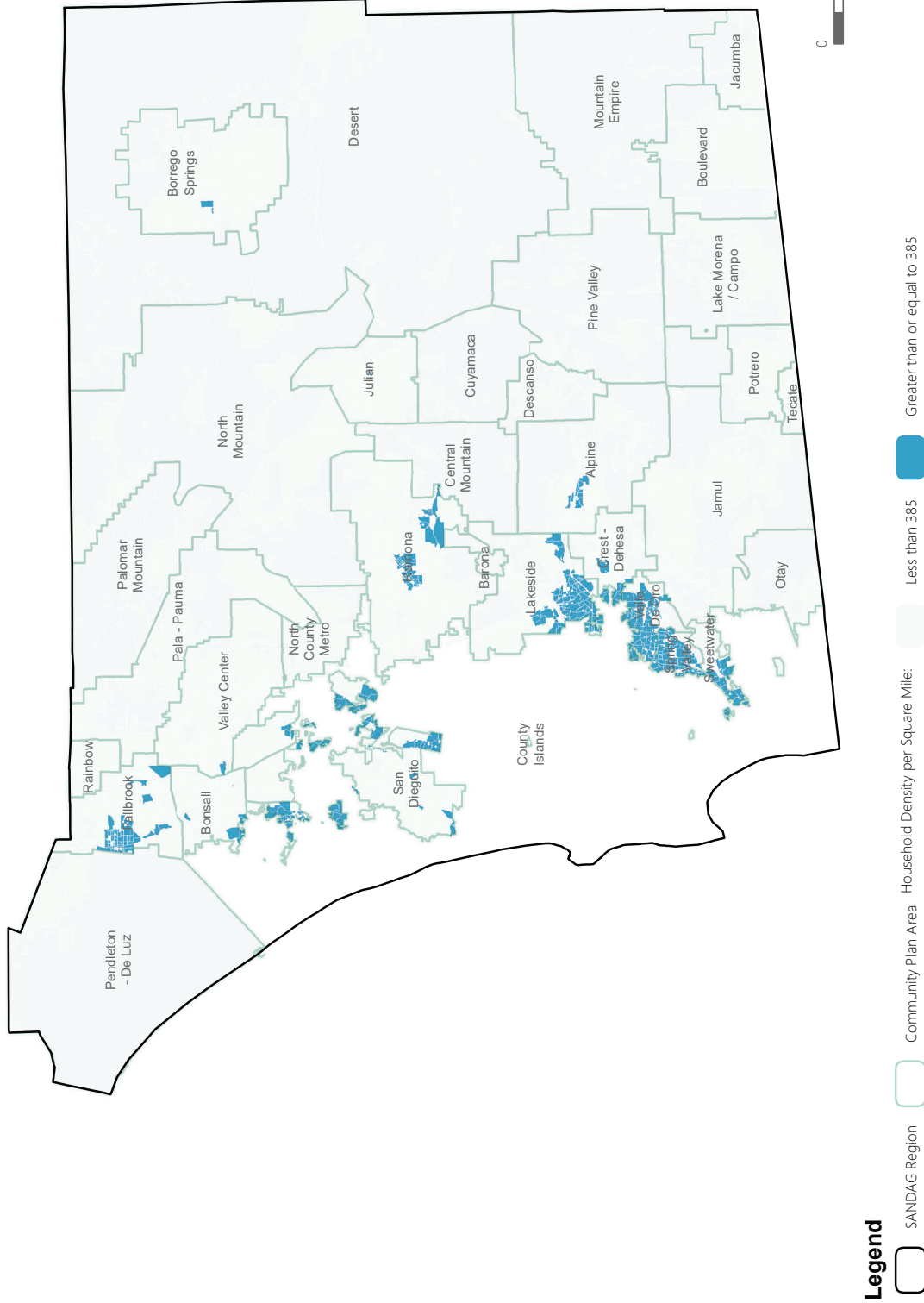
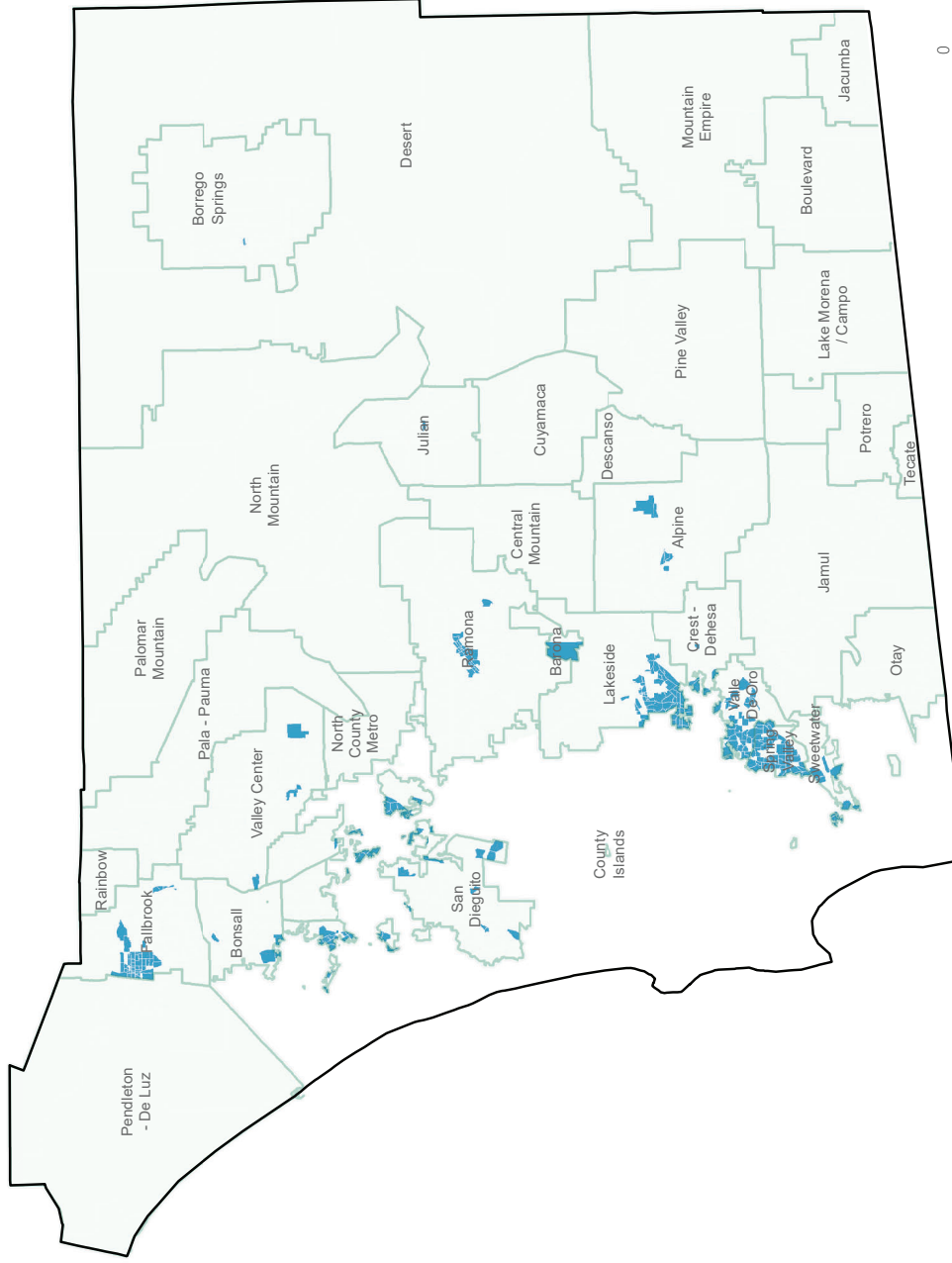


Figure 1: Household Density in Unincorporated San Diego County

*Based on the SANDAG Series 13 Base Year Model

October 20, 2021

Draft



Legend

-  SANDAG Region
-  Community Plan Area
-  Intersection Density per Square Mile:
 -  Less than 128
 -  Greater than or equal to 128
-  Greater than or equal to 128



Figure 2: Intersection Density in Unincorporated San Diego County

*Based on the SANDAG Series 13 Base Year Model

October 20, 2021



0 5 10 20 Miles

*Based on the SANDAG Series 13 Base Year Model

October 20, 2021



0 5 10 20 Miles

*Based on the SANDAG Series 13 Base Year Model

October 20, 2021



*Based on the SANDAG Series 13 Base Year Model

October 20, 2021



0 5 10 20 Miles

*Based on the SANDAG Series 13 Base Year Model

October 20, 2021

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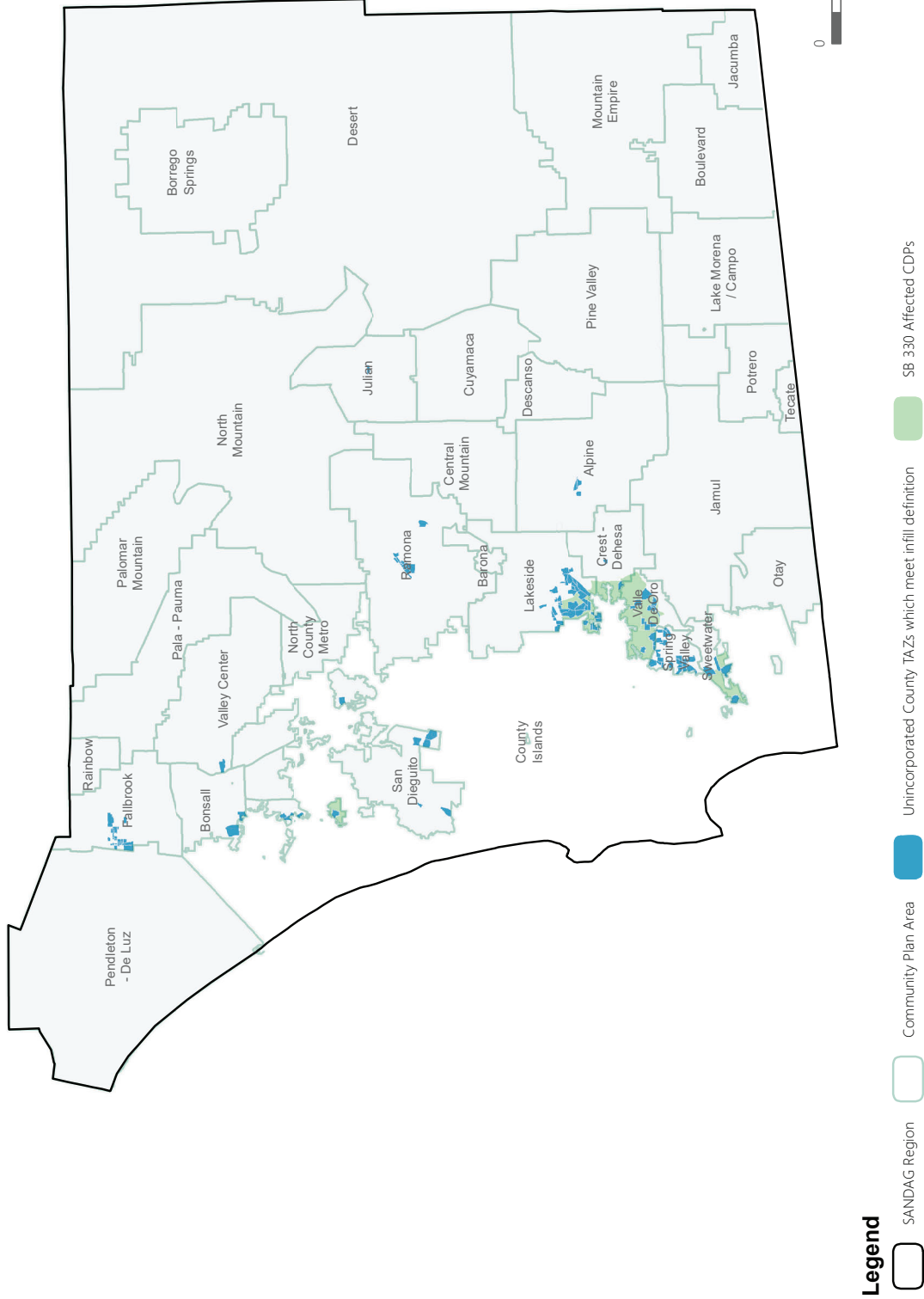


Figure 7: Unincorporated County Infill Areas and SB 330 Affected Census-Designated Places (CDP)

*Based on the SANDAG Series 13 Base Year Model

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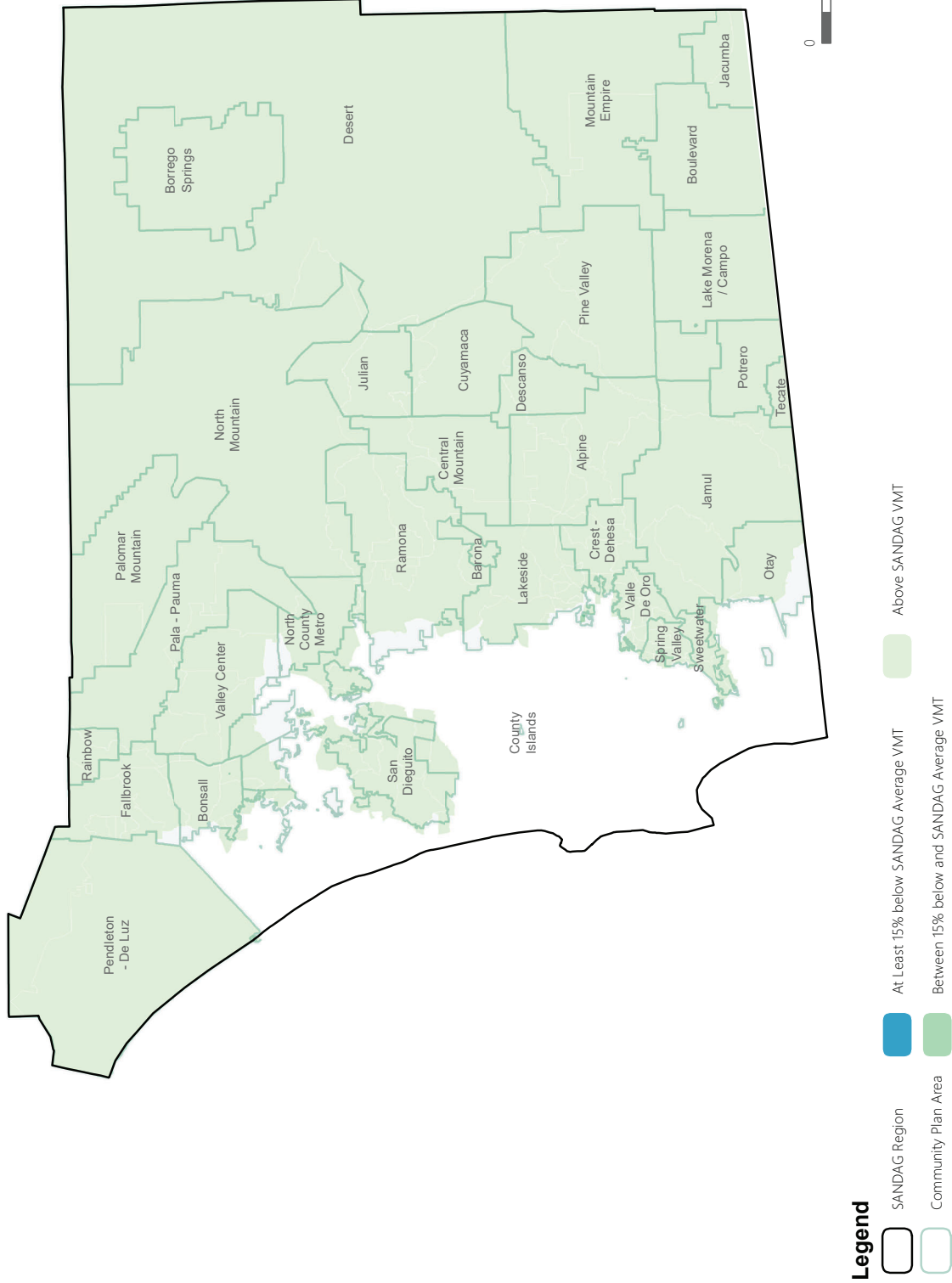


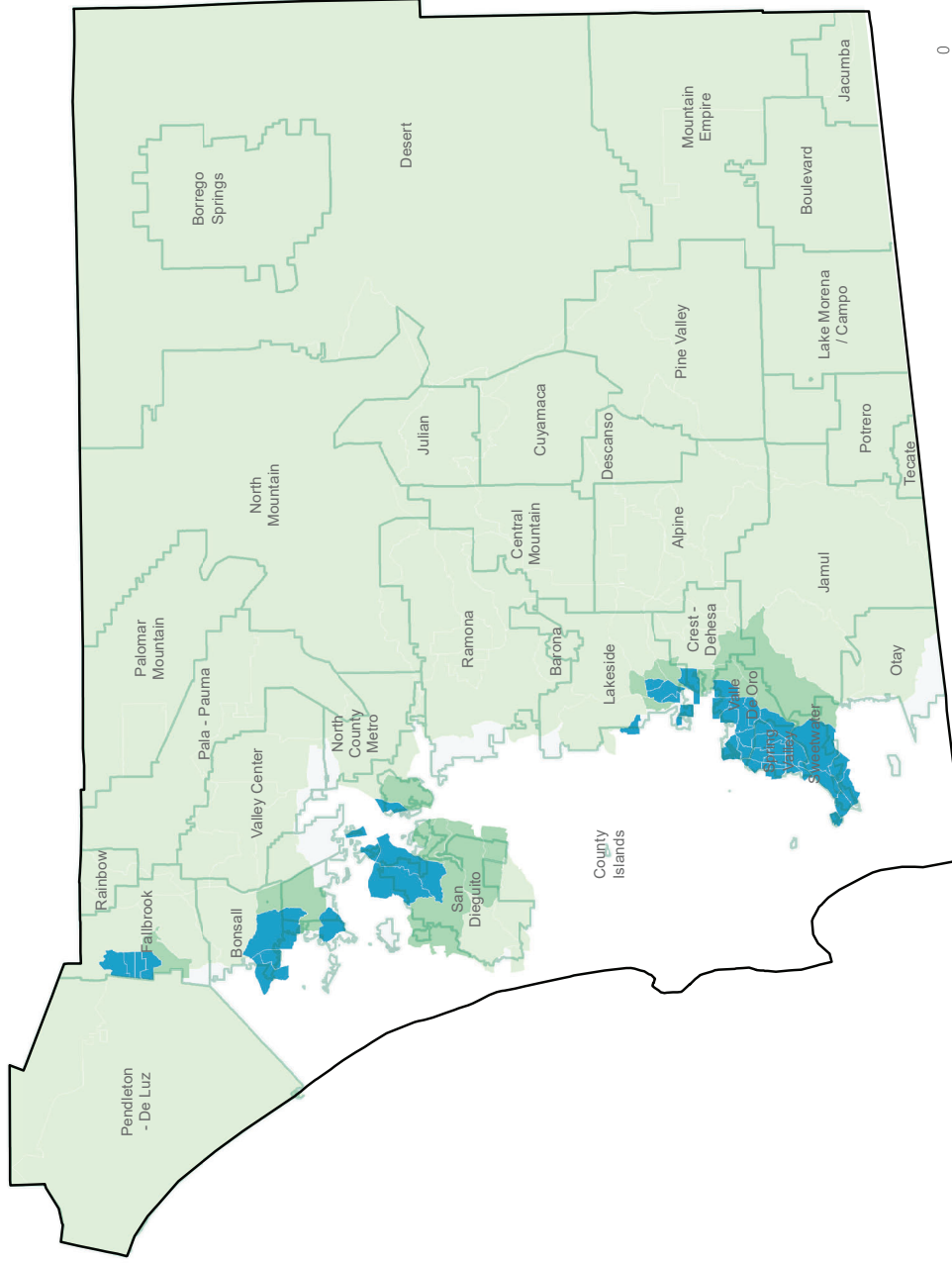
Figure 8: VMT per Capita by Census Tract, Categorized by SANDAG Average VMT per Resident (21.85)

*Based on the SANDAG Series 13 Base Year Model consistent with Rescinded Transportation Study Guidelines

October 20, 2021



Draft



Legend

- SANDAG Region
- At Least 15% below County Unincorporated Average VMT
- Between 15% below and County Unincorporated Average VMT
- Above County Unincorporated Average VMT
- Community Plan Area

Figure 9: VMT per Capita by Census Tract, Categorized by Unincorporated County Average VMT per Resident (32.54)

*Based on the SANDAG Series 13 Base Year Model consistent with Rescinded Transportation Study Guidelines

October 20, 2021



Draft

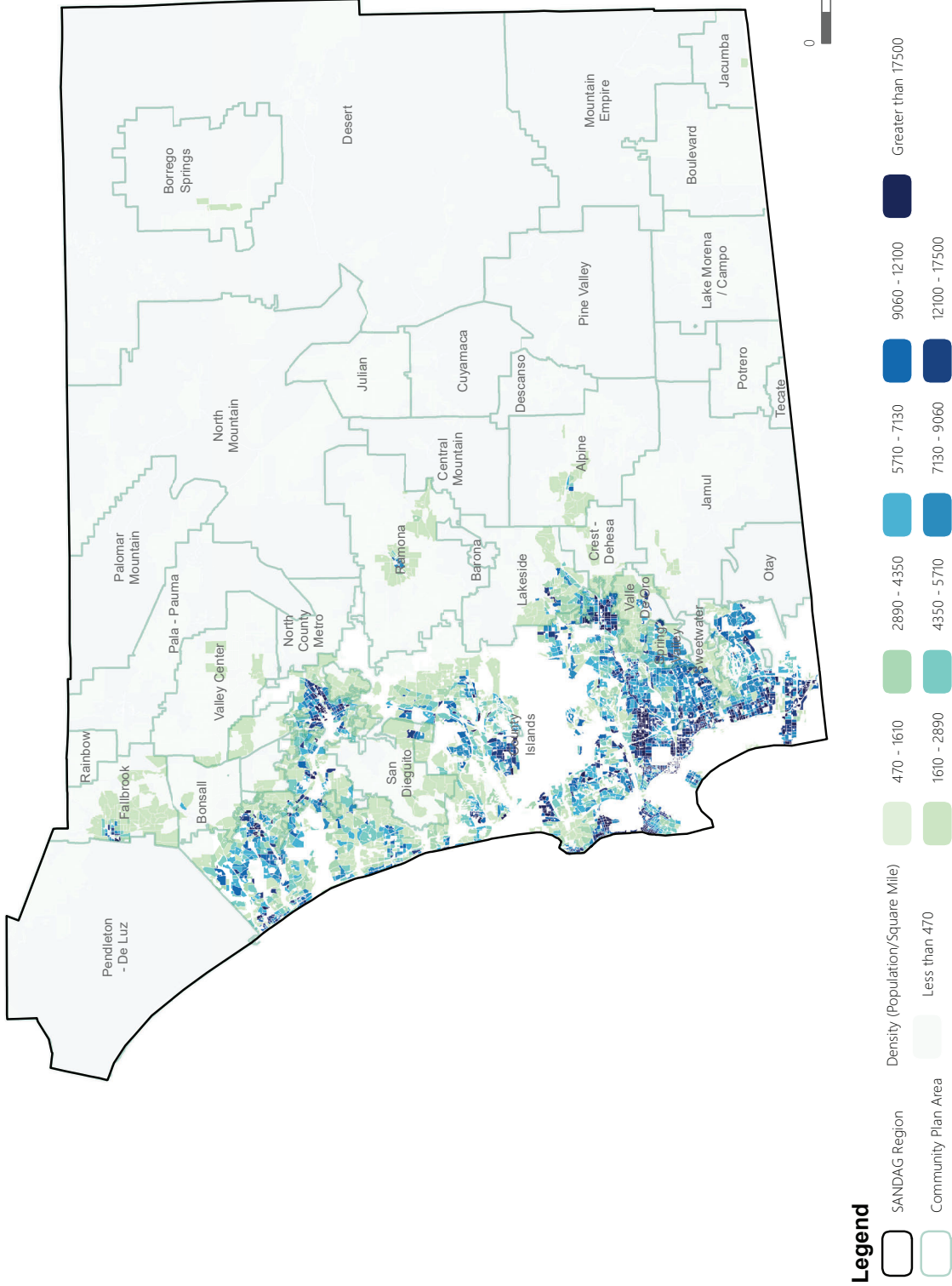


Figure 10: Population Density in San Diego County



*Based on the SANDAG Series 13 Base Year Model



October 20, 2021

Draft

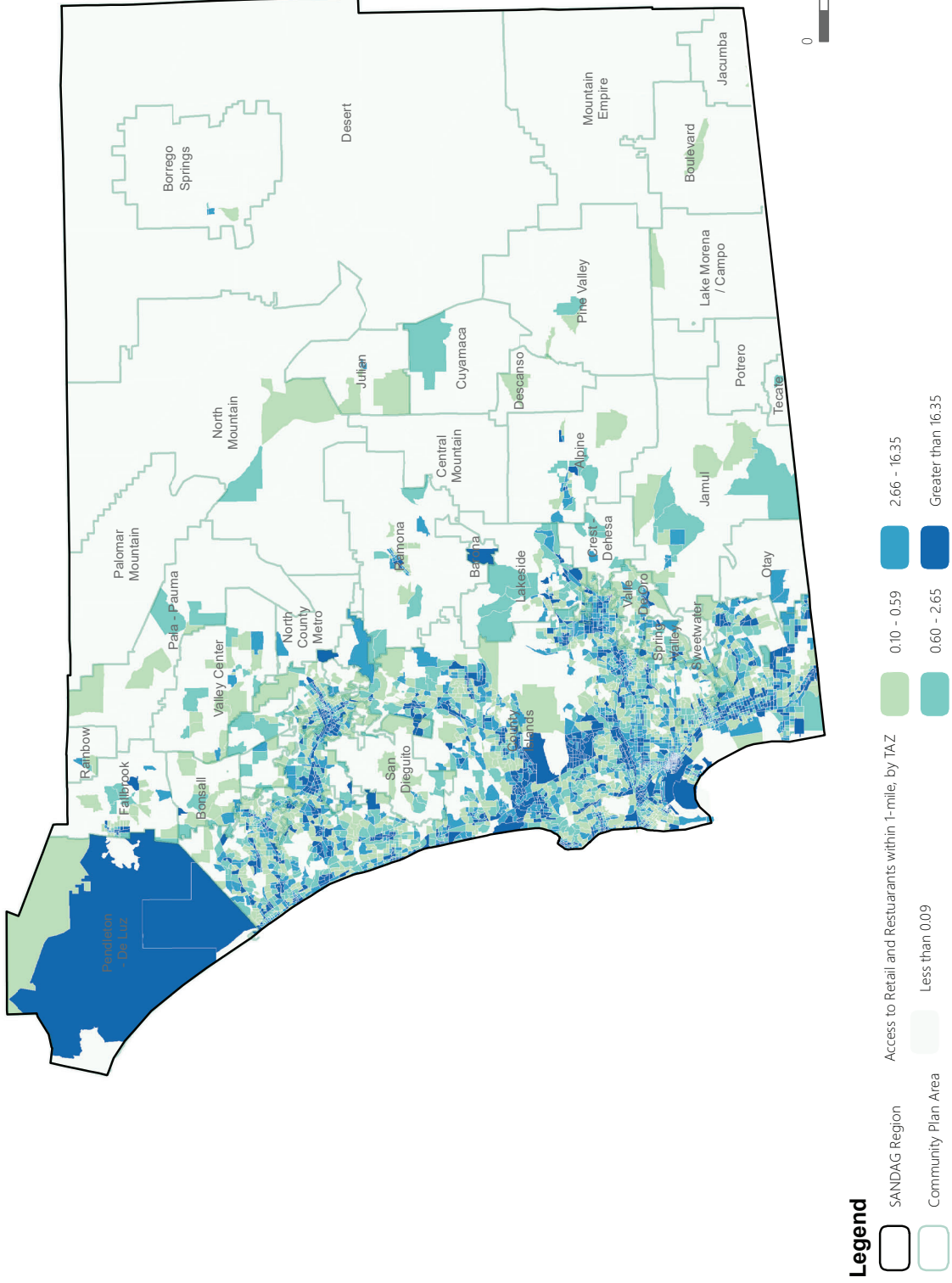


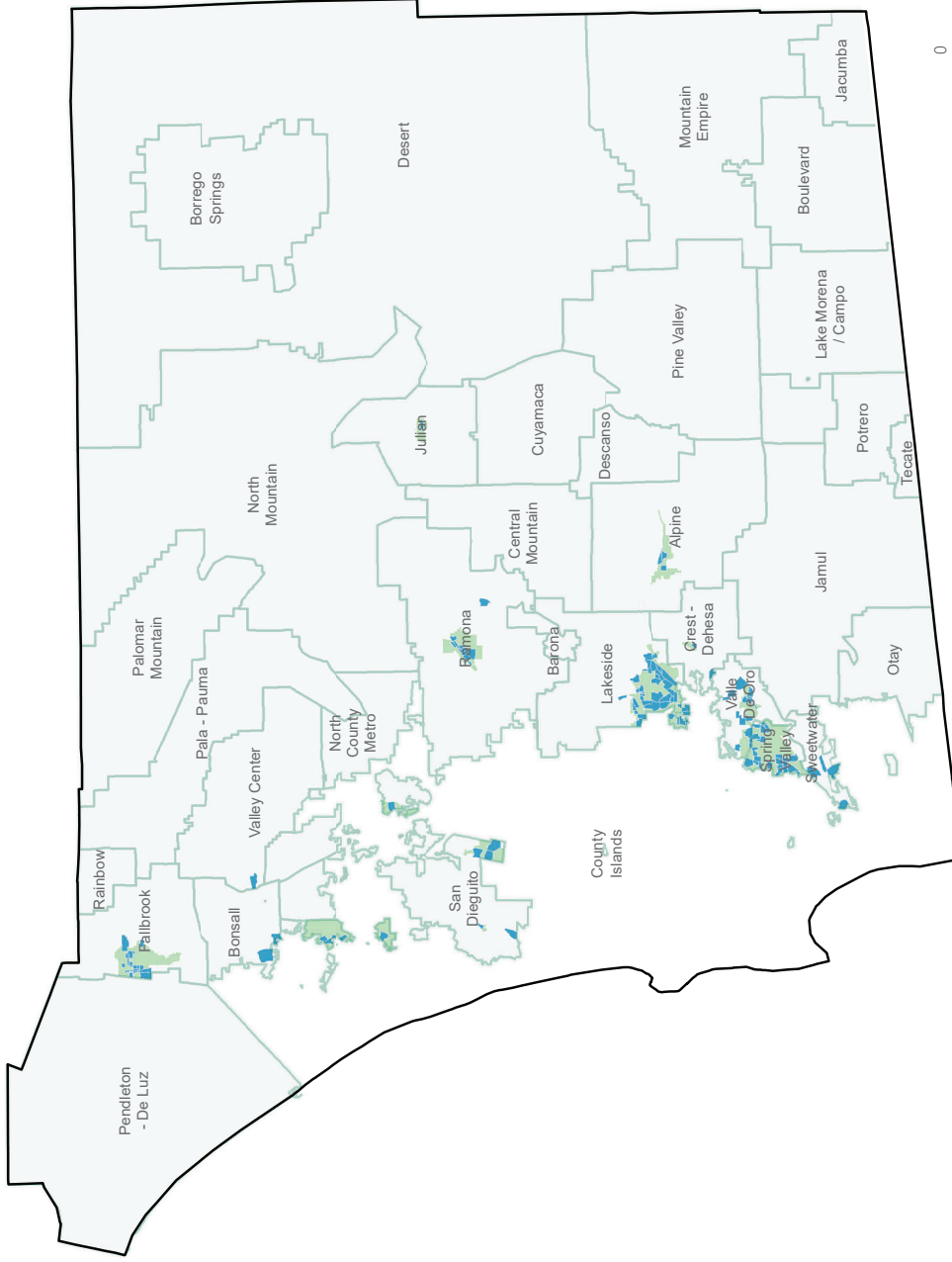
Figure 13: Retail and Restaurant Accessibility in San Diego County

October 20, 2021

*Based on the SANDAG Series 13 Base Year Model



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Legend

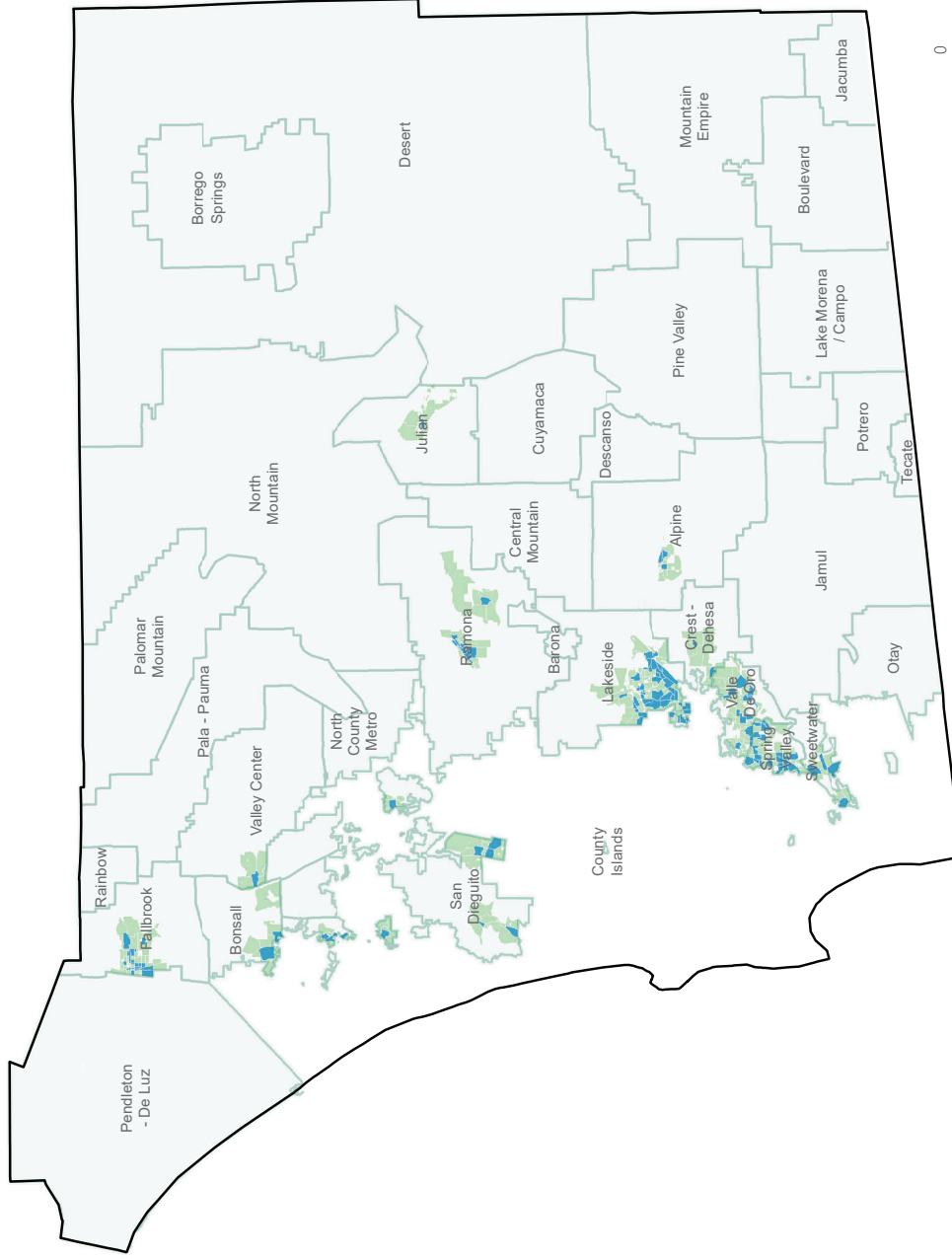
-  SANDAG Region
-  Unincorporated County TAZs which meet infill definition
-  County Village Areas that Overlap Infill Areas
-  Community Plan Area



Figure 14: County Village Areas that Overlap Infill Areas

*Based on the SANDAG Series 13 Base Year Model

Draft



Legend

-  SANDAG Region
-  Community Plan Area
-  Unincorporated County TAZs which meet infill definition
-  TAZs Adjacent to Infill Areas

Figure 15: Areas of Unincorporated County Which Meet Infill Definition and Adjacent TAZs

*Based on the SANDAG Series 13 Base Year Model



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**Attachment D – Transit Expansion
Memorandum**



MEMORANDUM

To: Jacob Armstrong and Damon Davis; County of San Diego
From: Stephen Cook, TE, Intersecting Metrics
Date: November 9, 2021
Regarding: Potential Transit Expansion within the County of San Diego

The purpose of this memo is to identify potential opportunities in which high-frequency regional transit routes can be further expanded into the unincorporated portions of San Diego County (Unincorporated County). This memo was completed in conjunction and builds on the County of San Diego's Staff Comments and Recommendations Regarding the Proposed San Diego Forward: Draft 2021 Regional Plan.

1.0 Background

Regional transit services within the Unincorporated County are currently limited to a single Sprinter¹ Station (Buena Creek) and a limited number of low frequency rural bus routes. With the implementation of California Senate Bill 743 (SB-743) the California Environmental Quality Act (CEQA) guidelines were revised to strongly encourage the use of vehicle miles traveled (VMT) as the metric in which transportation related impacts are determined. This presents a significant challenge for the Unincorporated County since it is predominantly comprised of lower density suburban and rural² communities, not served by transit, which is not ideal for efficient VMT production. As a result, the majority of the Unincorporated County generates VMT at a higher rate than what is prescribed under CEQA. As such, the County of San Diego Planning and Development Services Department (County) is currently looking for opportunities to further expand transit within the Unincorporated County to help alleviate VMT related impacts and allow for higher density infill development within key locations around the potentially expanded transit services.

The following sections provide background on SB-743, the effect that it has had on the Unincorporated County, its relationship to regional transit services, and the direction in which the County of San Diego Board of Supervisors (Board) provided County staff in regard to exploring regional transit opportunities within the Unincorporated County to potentially reduce VMT related impacts.

1.1 SB-743

On September 27, 2013, Governor Edmund G. Brown, Jr. signed SB-743 into law, starting a process that is expected to fundamentally change the way transportation impact analysis is conducted under CEQA. Within the State's CEQA Guidelines, these changes included elimination of auto delay, level of service (LOS), and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts.

On December 2018, the Resources Agency certified and adopted the CEQA Guidelines update package, which included the California Natural Resources Agency Guidelines for the Implementation of

¹ The San Diego Sprinter Line is a light-rail line operated by the North County Transit District (NCTD) along the SR-76 corridor in the norther portion of San Diego County.

² See **Attachment 1** for definition of urban, suburban, and rural areas.



the California Environmental Quality Act. As part of this package the CEQA Guidelines were updated to include the new impact standards and criteria for transportation related impacts, as 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.

1.2 OPR Technical Advisory

As a result, the California Governor's Office of Planning and Research (OPR) updated and released the *Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory)*³ in December 2018. The Technical Advisory provides guidance and recommendations on how jurisdictions can update their transportation guidelines to be consistent with SB-743 and the updated CEQA guidelines. The Technical Advisory also provides substantial evidence for recommended VMT based significance thresholds, in which jurisdictions can adopt, or project applicants can use in cases where jurisdictional specific standards are not provided.

The recommended VMT impact thresholds provided within OPR's Technical Advisory are as follows:

- *Residential Projects:* Projects that generate a VMT per Capita at or below 85% of the regional mean have a less than significant impact.
- *Commercial Office Project:* Projects that generate a VMT per Employee at or below 85% of the regional mean have a less than significant impact.
- *Commercial Retail:* Projects that would result in no net increase in VMT within the region have a less than significant impact.
- *Transportation Projects* – Projects that do not induce additional vehicular travel have a less than significant impact.

The County does not currently have adopted VMT significance thresholds. Therefore, they currently utilize the standards, thresholds, and methodologies outlined in the OPR Technical Advisory for guidance in identifying VMT related impacts within the Unincorporated County.

1.3 Transit Priority Areas

As outlined in CEQA Guidelines Section 15064.3(b)(1), new development located within a half-mile of a major transit stop should be presumed to cause a less than significant transportation impact, regardless of if their anticipated VMT generation. Section 21064.3, of the CEQA Guidelines defines a major transit stop as a site containing any of the following: (a) An existing rail or bus rapid transit station. (b) A ferry terminal served by either a bus or rail transit service. (c) The intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. These areas have been defined as Transit Priority Areas (TPA) by the OPR Technical Advisory.

The OPR Technical Advisory further notes that the presumption of a less than significant impact within TPAs would not apply if project-specific or location-specific information indicates that the project will still generate significant levels of VMT. For example, the presumption might not be appropriate if the project:

- Has a Floor Area Ratio (FAR) of less than 0.75

³ OPR Technical Advisory: https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf



- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking)
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization)
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units

This shows that TPAs can be a good tool to provide additional opportunities for infill or higher density development to occur within areas that would otherwise have VMT related impacts. However; as noted above, low density projects (FAR less than 0.75) or developments that provide excess parking within TPAs may still result in a significant impact. Therefore, development within TPAs should adhere to the criteria outlined within the OPR Technical Advisory.

1.4 Effect on the Unincorporated Portions of San Diego County

The VMT per Capita and VMT per Employee for different areas within the Unincorporated County are derived using the SANDAG Series 14 Transportation Forecast - Base Year 2016 Model. As per the OPR Technical Advisory, development within areas that are identified to generate a VMT per Capita or VMT per Employee at or below 85% of the regional mean are presumed to have as less than significant impact. **Figure 1** displays the areas within the Unincorporated County that currently generate a VMT per Capita⁴ at or below 85% of the regional mean (green) and the areas that generate above 85% (red). As shown in Figure 1, there are only a small number of areas within the Unincorporated County that generate a VMT per capita below the OPR thresholds. Additionally, there is only one existing TPA located within the Unincorporated County, at the Buena Creek Sprinter Station. This indicates that there are very few locations within the Unincorporated County in which future development can occur without resulting in a significant VMT related impact.

1.5 Board Direction

In an effort to expand the number of TPAs within the Unincorporated County and incentivize infill development in less impactful areas, the Board provided County staff the following direction at the May 19, 2020 hearing:

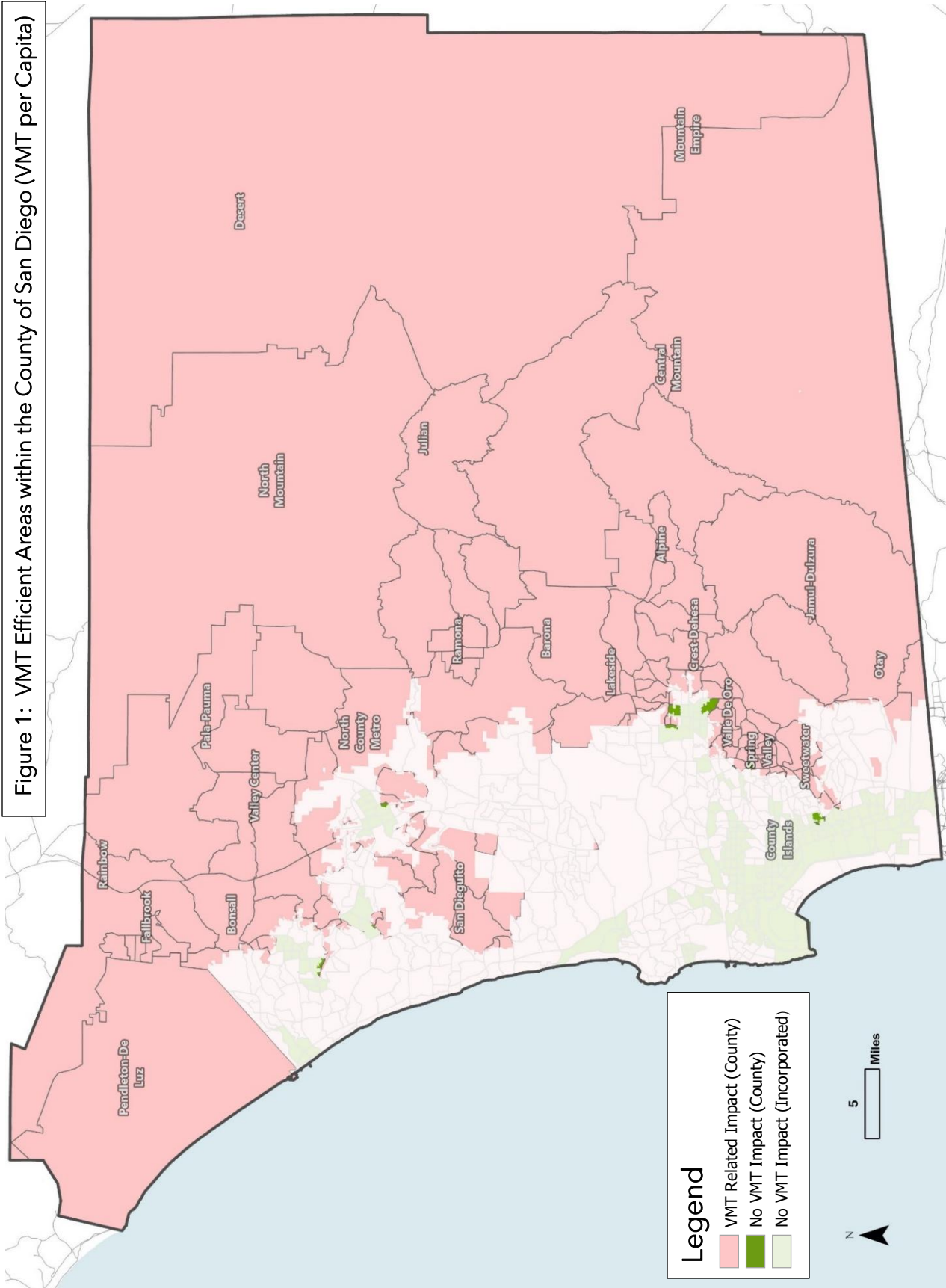
Explore the potential creation of transit accessible areas and look at the intersection between VMT efficient areas or lower thresholds in accordance with the areas that do not require further analysis. Explore the potential transit corridors and look at the SANDAG Regional Transportation Plan, Metropolitan Transit System (MTS), North County Transit District (NCTD), and other possible areas and how that may impact VMT efficient areas or areas covered by the exemption.

As such, the remaining sections of this memo outline the available resources and associated opportunities to expand the region's transit services into the Unincorporated County.

⁴ VMT per Employee generation can found through the following source:
<https://sandag.maps.arcgis.com/apps/webappviewer/index.html?id=5b4af92bc0dd4b7babbce21a7423402a>



Figure 1: VMT Efficient Areas within the County of San Diego (VMT per Capita)



Source: SANDAG Series 14 Transportation Forecast – Base Yea 2016



2.0 San Diego Forward 2021 Regional Plan

The San Diego Forward is the Regional Transportation Plan (RTP) for the San Diego Region. The RTP sets the vision, plan, timing, and funding allocation for a region's transportation network. As the Metropolitan Planning Organization (MPO) for the San Diego Region, SANDAG is responsible for developing, publishing, and implementing the region's RTP. SANDAG released the initial Draft of the *San Diego Forward the 2021 Regional Plan (2021 Regional Plan)*⁵, in May 2021. As such, the Draft 2021 Regional Plan was used as the primary resource to identify potential opportunities to expand future transit services within the Unincorporated County.

2.1 Transit Plan

High-frequency regional transit routes such as fixed rail, bus rapid transit (rapid bus), or express bus services are generally considered to be associated with high-quality transit corridors with major transit stops (as outlined in Section 1.2). Thus, these are the types of transit services that facilitate TPAs, and future development is encouraged to build around, as outlined in SB-743 and Section 21064.3 of the CEQA Guidelines. **Figure 2** displays the planned regional transit network contained within the 2021 Regional Plan. As shown, there is currently a limited number high-frequency regional transit services planned within the Unincorporated County, thus limiting the number of opportunities to create future TPAs. A Next Gen Rapid⁶ route is proposed to service the Spring Valley, Casa De Oro, Sweetwater, and Otay Community Planning Areas (CPAs); however, no other high-frequency regional transit services are proposed within the other portions of the Unincorporated County (outside of the exiting Buena Creek Sprinter Station).

The 2021 Regional Plan also identifies a series of Complete Corridors within the regional highway network where additional transit service and improvements are envisioned. Complete Corridors will be designed to give buses and other transit vehicles dedicated space on roadways that are currently identified to have excess vehicular capacity. Complete Corridors will also offer transit vehicles a traffic signal system that gives them priority over other traffic, thus reducing travel times and improving service. These improvements should provide the opportunity to implement additional future high-frequency regional transit services (Rapid bus or Express bus) within the Unincorporated County.

Figure 3 displays the Complete Corridors that are planned within the 2021 Regional Plan. As shown in the figure, the I-15, I-8 and SR-125 corridors are all included within the regional Complete Corridor network. As such, the proposed Complete Corridors will have the ability to provide additional high-frequency regional transit services to the Bonsall, Fallbrook, North County Metro, and Lakeside CPAs.

2.2 Mobility Hubs

As outlined in the 2021 Regional Plan, Mobility Hubs are communities with a high concentration of people, destinations, and travel choices. Mobility Hubs can span one, two, or even a few miles based on community characteristics. Mobility Hubs will be uniquely designed to fulfill a variety of travel needs while strengthening sense of place. A fully connected network of regional Mobility Hubs ensures seamless connections to major work, school, shopping, and leisure destinations using transit and Flexible Fleets. Infrastructure improvements associated with the regional transit network, Complete Corridors, and Mobility Hubs will ensure that Flexible Fleets have safe spaces to use streets and places to charge and park vehicles at key destinations. Based on these identified features Mobility Hubs are generally associated with the development that is encouraged within TPAs.

Figure 4 displays the proposed Mobility Hub locations within the region. As shown in the figure, there are proposed Mobility Hub locations that incorporate portions of the San Dieguito, North County Metro, Lakeside, and Otay CPAs.

⁵Source: <https://sdforward.com/mobility-planning/2021-regional-plan>

⁶ The 2021 Regional Plan identifies Next Gen Rapid as faster and more reliable Rapid bus service with more comfortable, high-tech vehicles operating in priority lanes and making use of better signal technology. All day service would operate 20 hours per day.

Figure 2: Proposed Regional Transit Network

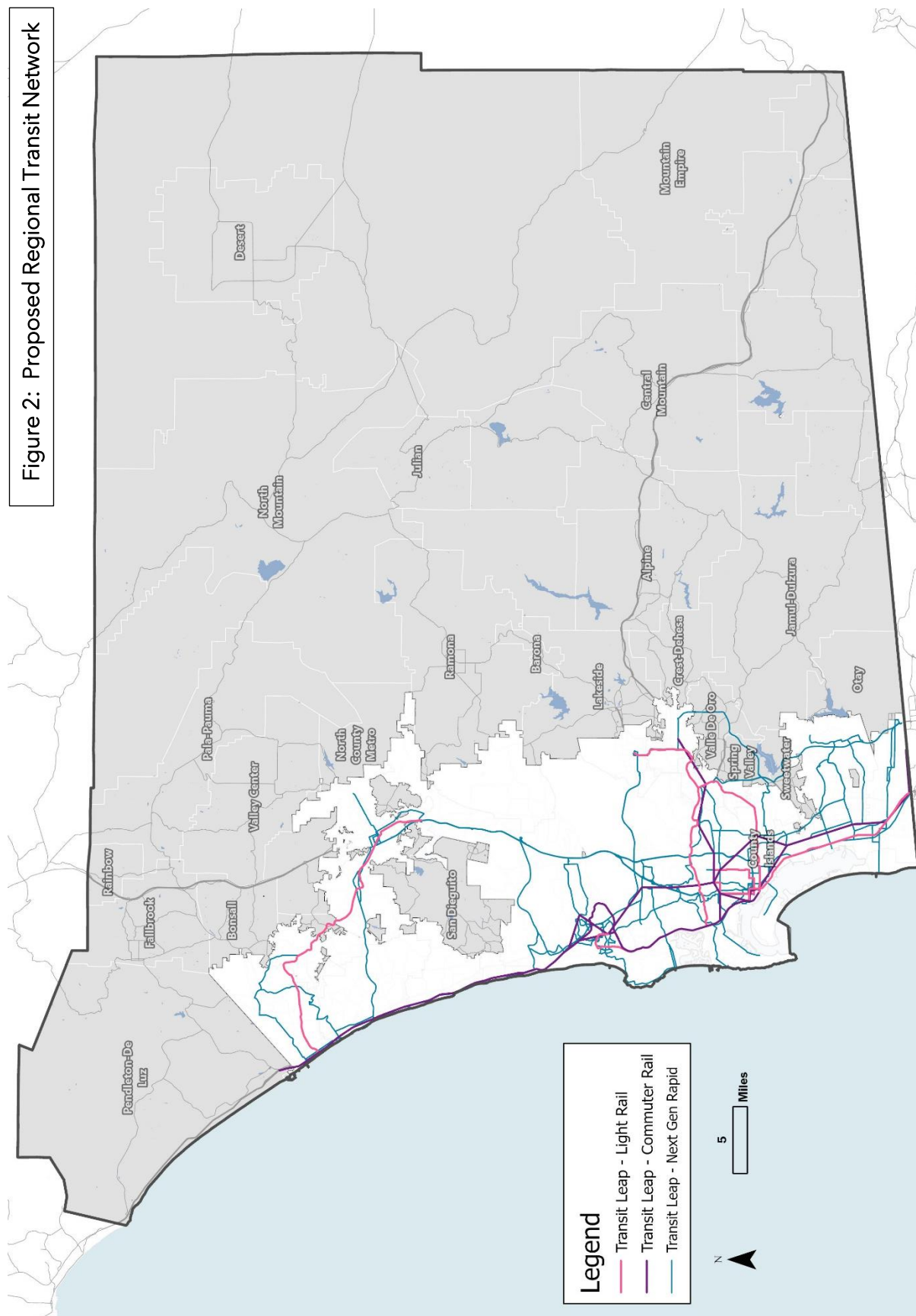


Figure 3: Proposed Complete Corridors

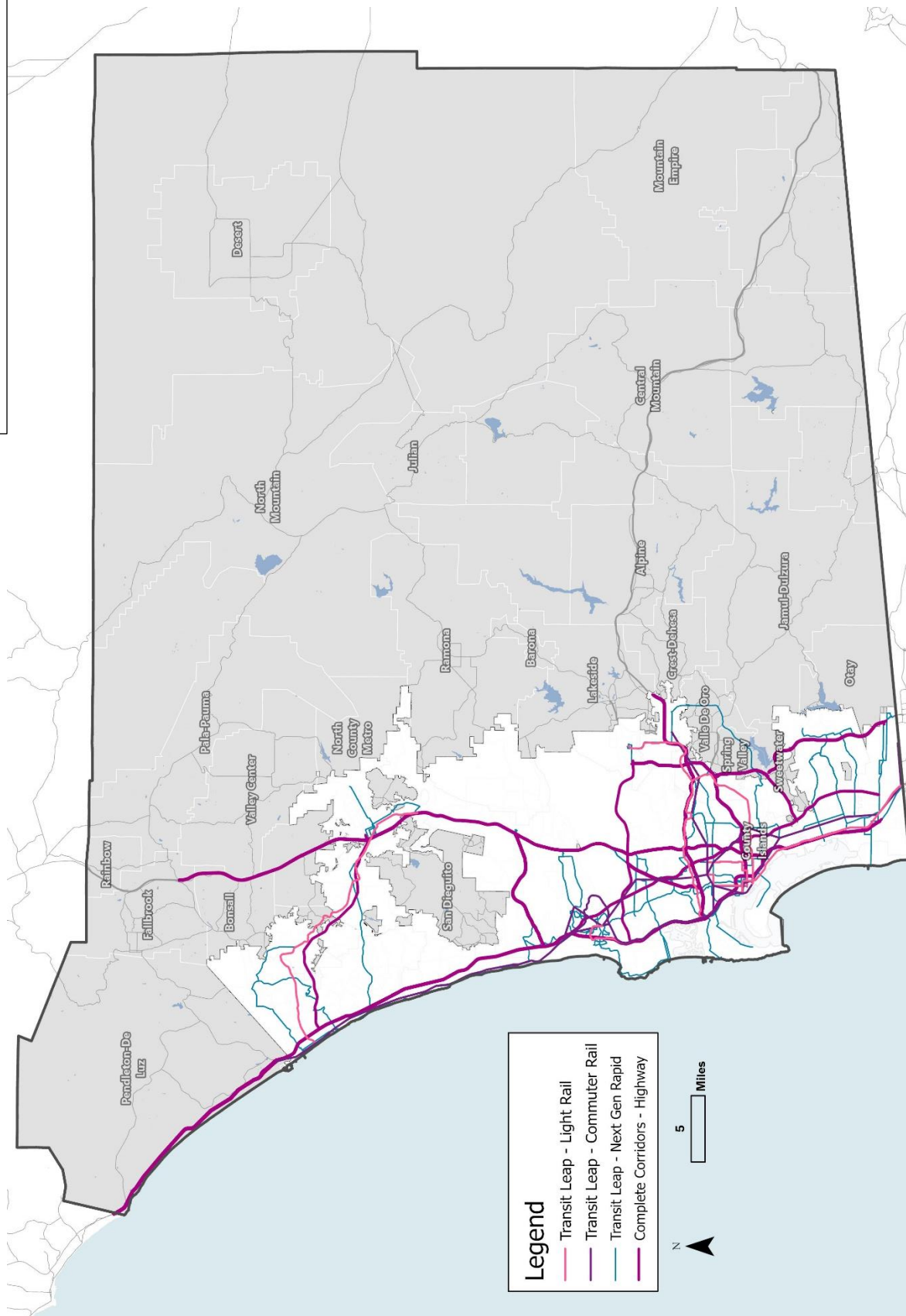
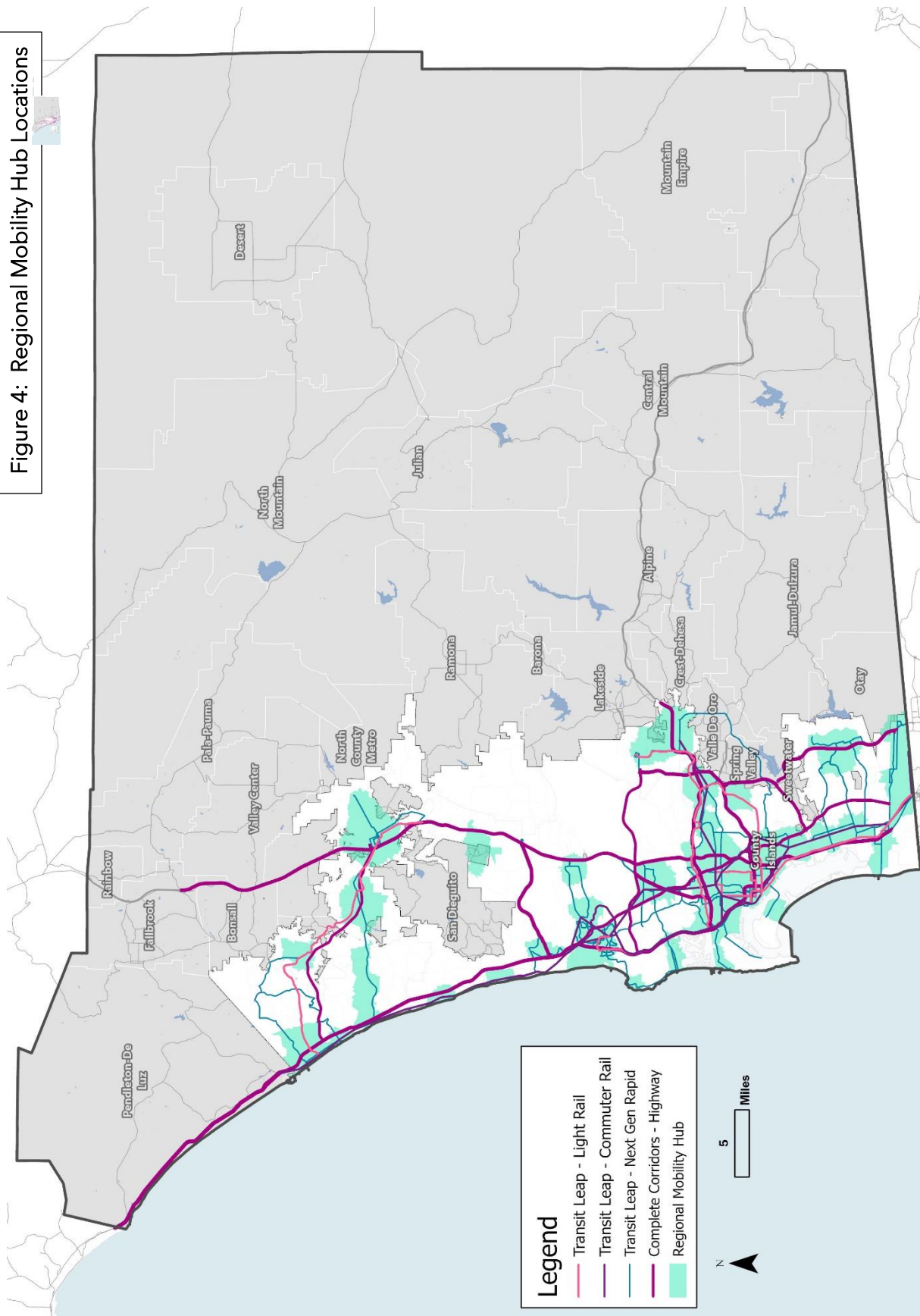




Figure 4: Regional Mobility Hub Locations





2.3 Implementation

The 2021 Regional Plan is intended to be implemented over the next 29 years (with a horizon year 2050). The funding and improvement schedules within the plan are broken down into three different timeframes 2025, 2035 and 2050. Appendix A⁷ of the 2021 Regional Plan provides a break down of both the timing and anticipated construction costs (Year 2020 dollars) for each component of the plan.

As outlined in Table A.14⁸ (Appendix A) of the 2021 Plan, over \$5 billion dollars will be allocated towards the development of the regional Mobility Hub network that is planned throughout the region. In general, the timing of the proposed Mobility Hub improvements will be in conjunction with the Complete Corridor and Transit Leap improvements, outlined in Table A.1.

Based on discussions with SANDAG staff, the locations, features, and amenities within the individual Mobility Hub sites have not yet been defined. SANDAG plans to work with the member agencies to identify the transportation needs and opportunities within each Mobility Hub site. Table A.17⁹ (Appendix A) of the 2021 Regional Plan establishes \$837 million in future planning and capital grant opportunities in which local jurisdictions can use to identify, plan, and implement transportation related infrastructure, programs, or land uses opportunities associated with the proposed Mobility Hubs, as well as smart growth and/or VMT reduction opportunities. An additional \$333 million in grant funding will also be available for member agencies to develop, enhance review, process, and/or update their smart growth and VMT reducing related policies.

3.0 Opportunities to Expand Transit

This section identifies potential options to expand transit services within the Unincorporated County based on both existing and future land uses patterns identified within the County's General Plan.

3.1 Density

A key component to successful transit service is to provide a connection between areas with high densities both in population and employment. When transit services can efficiently connect one higher density area to another, there is a higher propensity that travelers within those areas will have both their origin and destination along the provided transit line, thus, making the use of transit more viable, as noted in the OPR Technical Advisory (see Section 1.3). Additionally, areas with higher existing densities provide more opportunity for infill development, which is encouraged in and around TPAs, as outlined in SB-743. **Figure 5** displays the areas within the Unincorporated County that have the highest existing service population¹⁰ density per square mile.

3.2 Village Areas

The *County of San Diego General Plan* identifies a series of areas within the Unincorporated County where higher density development and mixed-use development will be concentrated, known as Village Areas. The main goal of the Village Areas is to support multi-modal and mixed use travel, as outlined in Goal LU-5.1 of the County of San Diego General Plan:

Reduction of Vehicle Trips within Communities. Incorporate a mixture of uses within Villages and Rural Villages and plan residential densities at a level that support multi-modal transportation, including walking, bicycling, and the use of public transit, when appropriate.

This makes the identified Village Areas as ideal locations to increase land use densities to draw and expand more regional transit services and Mobility Hub locations to the Unincorporated County. **Figure 6** displays the Village Areas that are identified within the County of San Diego General Plan.

⁷Appendix A: https://sdforward.com/docs/default-source/2021-regional-plan/appendix-a---transportation-projects-programs-and-phasing5715966e63506b1e9dedff0000f4af15.pdf?sfvrsn=ba44fd65_4

⁸ Table A.14 is provided as **Attachment 2**.

⁹ Table A.17 is provided as **Attachment 3**.

¹⁰ Service Population is the total number of residents plus the total number of jobs within an identified area.

Figure 5: Service Popualtion Density

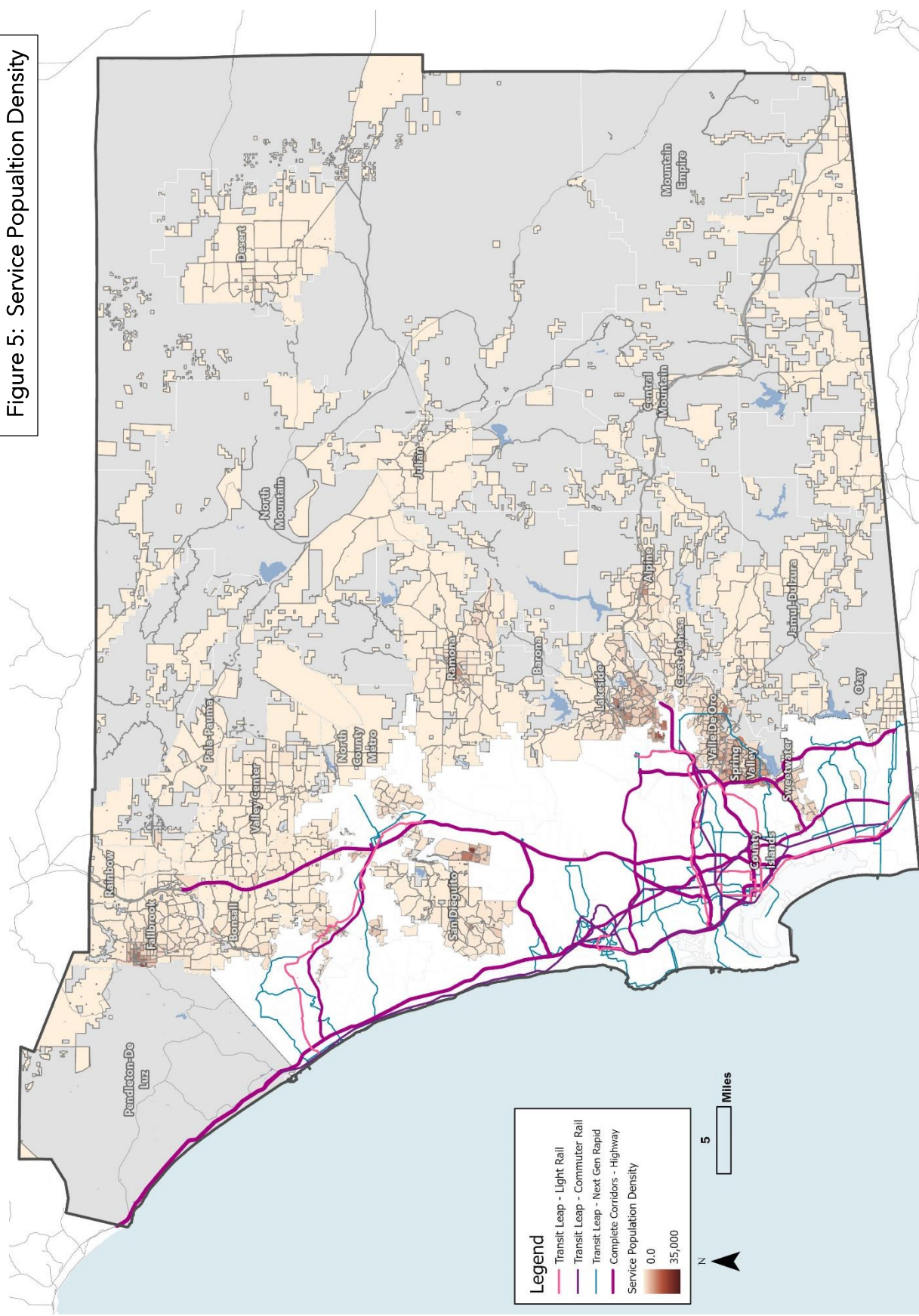
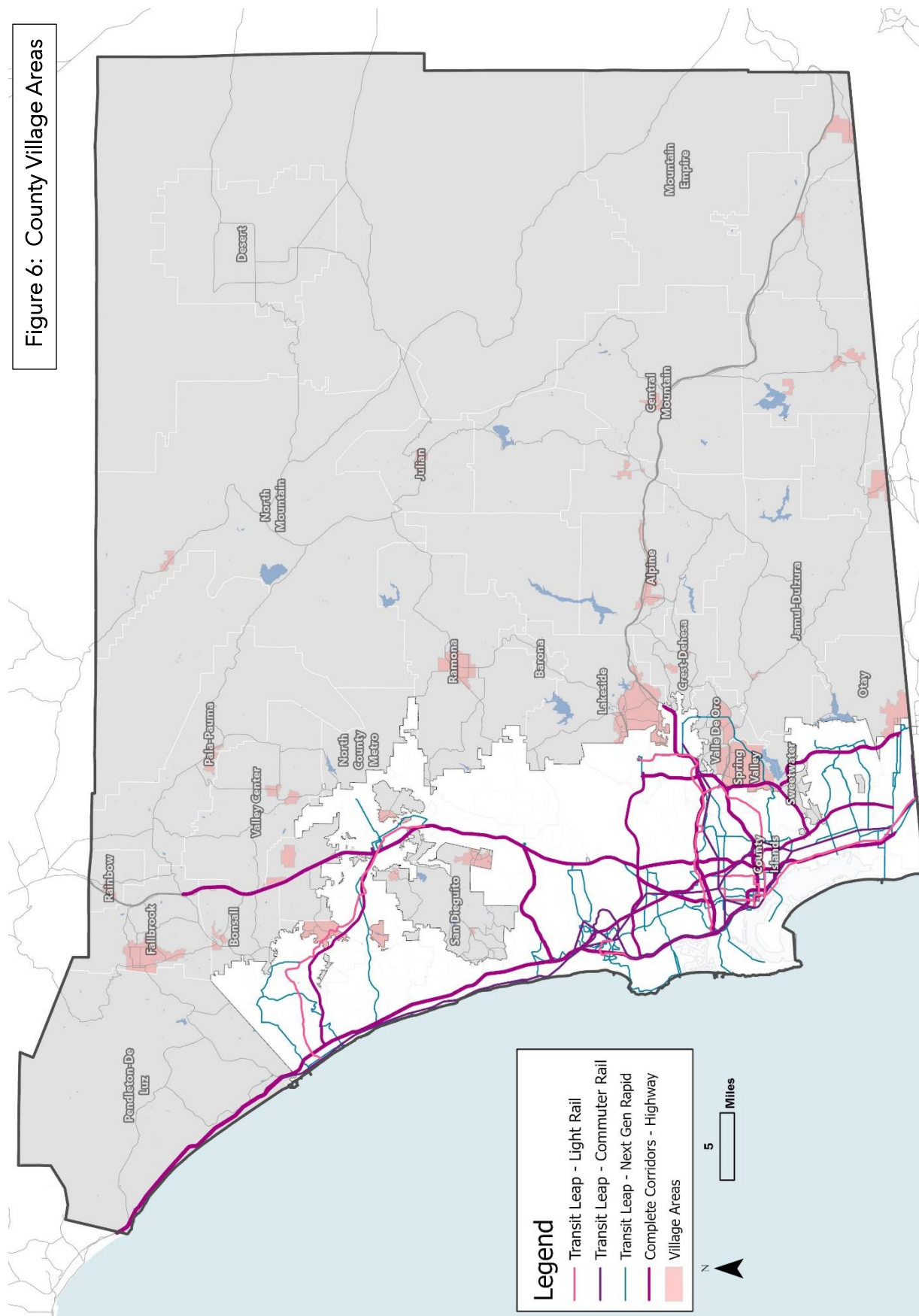


Figure 6: County Village Areas





3.3 Transit Opportunity Areas

The data previously presented in Figures 2-5 was utilized to identify areas in which the regional transit network has the best opportunity to be expanded within the Unincorporated County. Based on this analysis the following areas were identified to be the best suited for regional transit expansion, as also displayed in **Figures 7a through 7c**:

San Dieguito East Village Area: As shown in Figures 2 and 6, the San Dieguito East Village Area is located adjacent to the Next Gen Rapid line that is proposed along I-15 corridor. Additionally, the 2021 Regional Plan proposes a Mobility Hub that will fully encompass the San Dieguito East Village Area, as shown in Figure 3. Finally, as shown in Figure 5 the San Dieguito East Village Area is currently in the top tier of service population densities within the Unincorporated County making it ideal for infill development. Based on these findings, the San Dieguito East Village Area has the highest potential to receive high frequency regional transit service within the Unincorporated County. As such, the County should work with SANDAG to prioritize the development of future transit services and the development of a Mobility Hub within this area. The County should also look for opportunities to incentivize and streamline transit oriented development (TOD) within this area.

Lakeside Village Area: As shown in Figures 5 and 6, parts of the Lakeside Village Area is currently in the highest tier of service population densities within the Unincorporated County. As displayed in Figure 4, the southwest portion of the Lakeside Village Area is located within a proposed Mobility Hub location. Finally, as displayed in Figure 3, I-8 is identified as a future Complete Corridor within the 2021 Regional Plan, which may help to bring high-frequency regional transit to this area. However; it should be noted that the proposed Complete Corridor improvements are planned to end just to the west of the Lakeside Village Area. As such, the County should coordinate with SANDAG to evaluate the potential and feasibility of extending the proposed I-8 Complete Corridor Improvements through the Lakeside Village Area. Additionally, the County should look for opportunities to incentivize and streamline transit oriented development (TOD) within this area, particularly in the areas that are located within the proposed Mobility Hub.

Spring Valley & Valle De Oro Village Areas: As shown in Figure 6, a future Next Gen Rapid Line is proposed along the southeastern boundary of the Spring Valley Valle De Oro Village Areas. The SR-125 Complete Corridor is proposed along the western boundary of the Spring Valley Village Area. As shown in Figure 5, the service population densities within both village areas are in the highest tier within the Unincorporated County. The 2021 Regional Plan did not identify a Mobility Hub within either of the village areas; however, the high quality transit access and service population densities within these village makes them ideal candidates for future or additional Mobility Hub locations. As such, it is recommended that the County coordinate with SANDAG to potentially expand the Mobility Hub network into these areas as well. It is also recommended that the County explore the feasibility of increasing the land use densities along the proposed transit lines within both village areas to better facilitate a potential Mobility Hub and increase the need for transit access.

Sweetwater CPA: As shown in Figure 2, a future Next Gen Rapid line will provide service through the middle of the Sweetwater CPA, the SR-54 Complete Corridor is also proposed along its northern boundary. Both of these facilities should provide ideal transit access to the Sweetwater CPA in the future. However, as shown in Figure 6 there are no Village Areas proposed within the Sweetwater CPA, and as shown in Figure 5, the CPA currently has moderate to low service population densities. To take advantage of the future transit access within the Sweetwater CPA, it is recommended that the County implement a Village Area within the western portion of the Sweetwater CPA, increase the proposed land use densities within the area, incentivize TOD styles of development, and coordinate with SANDAG to implement a future Mobility Hub within the area.

Figure 7a: Opportunity for Transit Expansion (Density)

This map of San Diego illustrates the potential for transit expansion based on population density. The map uses a color scale from light yellow (0.0) to dark brown (35,000) to represent density levels. Major transit corridors are highlighted with thick purple lines, while other transit routes are shown in pink. The map also displays the existing light rail and commuter rail network. Key geographic features and cities are labeled, including San Diego, Escondido, Rancho Santa Fe, Poway, Mira Mesa, San Marcos, and Carlsbad. A legend in the bottom left corner defines the symbols for different transit modes and density levels. A scale bar in the bottom right corner indicates distances up to 5 miles.

Legend

- Transit Leap - Light Rail
- Transit Leap - Commuter Rail
- Transit Leap - Next Gen Rapid
- Complete Corridors - Highway
- Service Population Density
- 0.0
- 35,000
- Transit Opportunity Areas

5 Miles

Figure 7b: Opportunity for Transit Expansion (Village Areas)

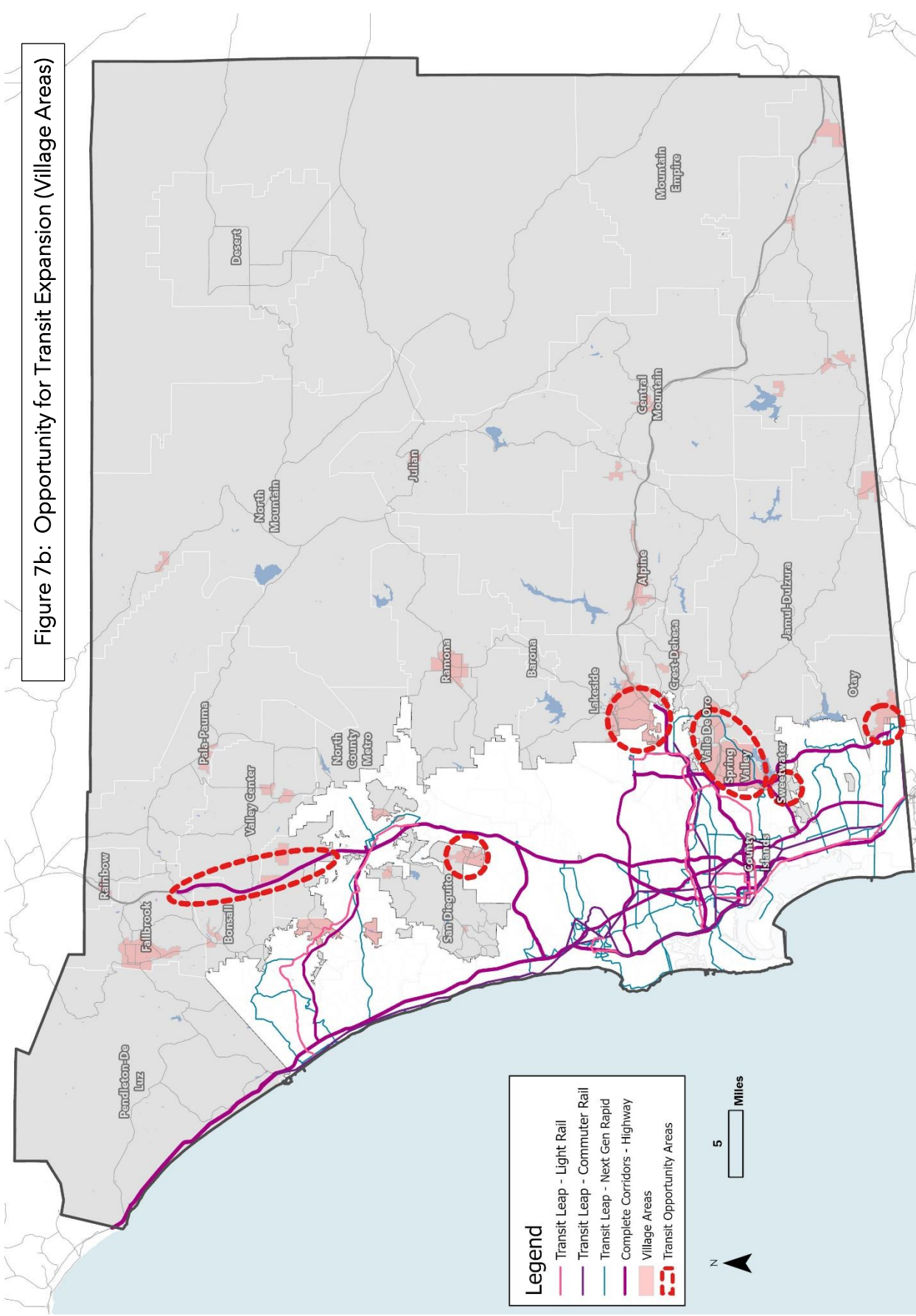
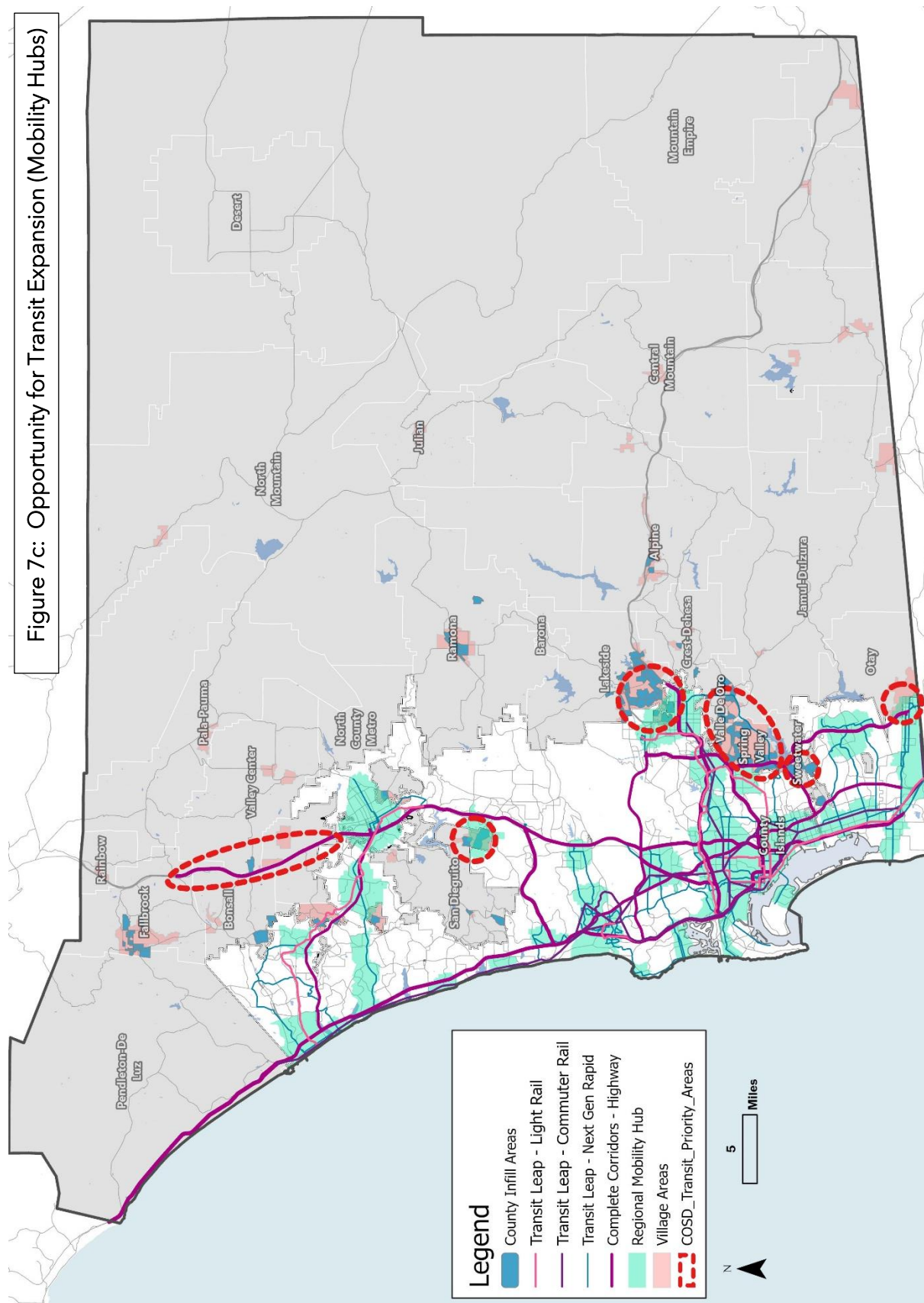


Figure 7c: Opportunity for Transit Expansion (Mobility Hubs)





Otay Village: As shown in Figure 6, the Otay Village Area is located directly adjacent to a proposed Next Gen Rapid line and the SR-125 Complete Corridor. The 2021 Regional Plan also proposes a Mobility Hub which encompasses a portion of the Otay Village Area, as shown in Figure 3. As shown in Figure 5, the service population density within the Otay Village Area is currently low; however, the East Otay Mesa Specific Plan does provide the opportunity to substantially increase the employment densities within the area. As such, the County should continue to coordinate with SANDAG to help facilitate the development of both the Next Gen Rapid services as well as the development of the planned Mobility Hub in conjunction with the buildout of the East Otay Mesa Specific Plan.

I-15 Corridor: As shown in Figure 3, the 2021 Regional Plan is proposing that the I-15 corridor become a Complete Corridor, particularly within the northern portion of the Unincorporated County. However, as shown in Figures 4 and 5 there are currently no Mobility Hubs proposed along this corridor and the existing service population densities along the corridor are low. There are two village areas (Hidden Meadows West and Hidden Meadows East) located along the corridor which may present an opportunity to increase the density along the corridor and in which transportation oriented development could be implemented to facilitate and attract future transit services. The County should continue to monitor the progress of the I-15 Complete Corridor plan and adjust the land use densities as needed.

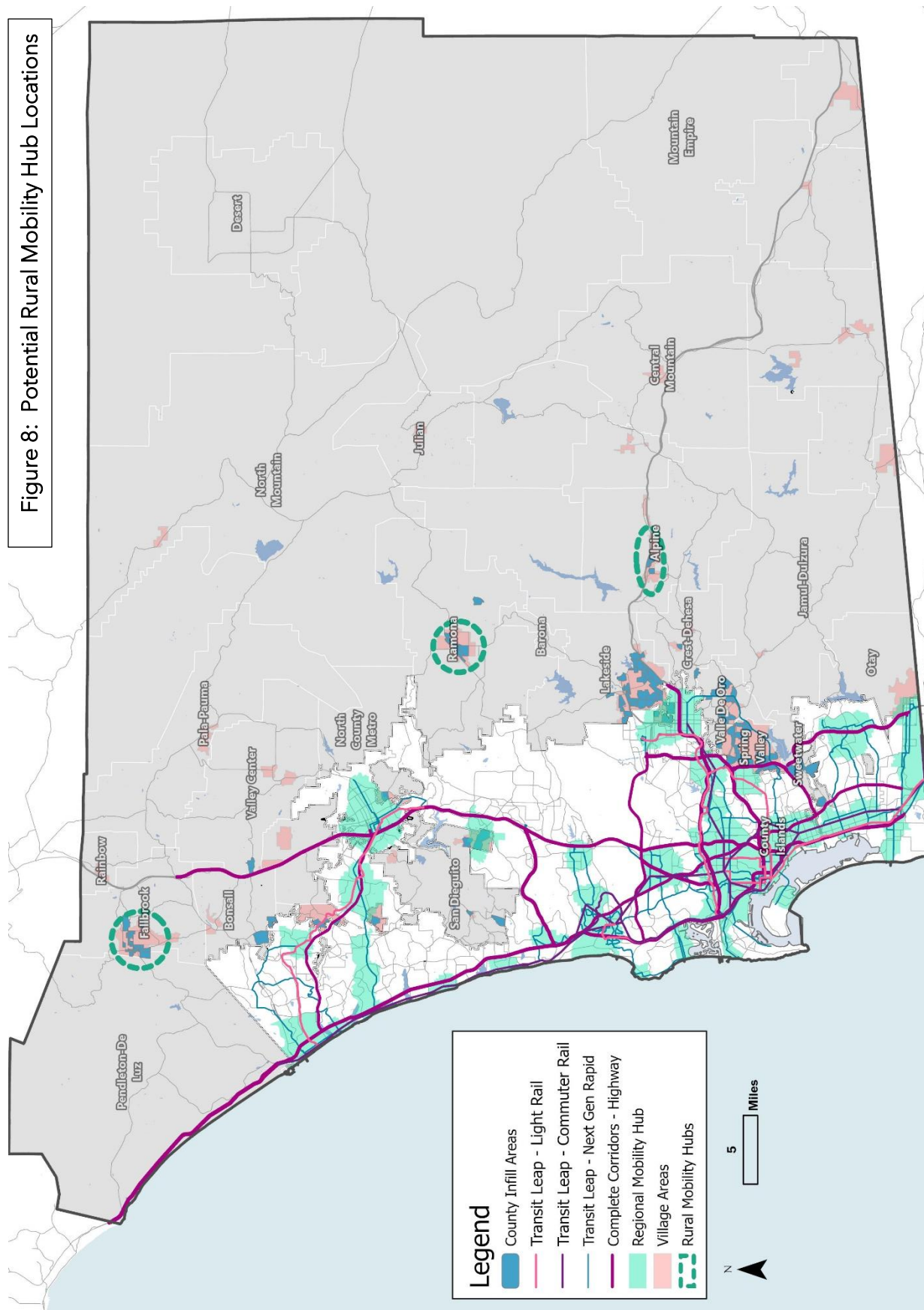
3.4 Rural Mobility Hubs

As shown in Figure 5, the Fallbrook, Ramona, and Alpine Village Areas all are in the top tier of service population density within the Unincorporated County. However, as shown in Figure 6 no future high-frequency regional transit services are planned to access these areas. The County is currently working with SANDAG to investigate the potential for implementing a rural version of Mobility Hubs within these areas. Rural Mobility Hubs would incorporate the same internal multi-modal and Flexible Fleet improvements as the other Mobility Hub areas but would not be incorporated into the regional transit network. The designation of Rural Mobility Hubs within these areas should allow the County to seek grant funding for localized multi-modal improvements within these areas, such as bicycle and pedestrian improvements as well as Flexible Fleet services, as previously outlined in Section 2.3. These improvements, as well as the high service population densities, and mix of land uses should help to reduce VMT within these areas via internal trip capture and transportation mode shifts.

The potential Rural Mobility Hub locations are displayed in **Figure 8**.

It should be noted that since these areas would not be included within the regional transit network, they are not anticipated to be within a TPA (existing or future). Additionally, while the multi-modal improvements outlined above will help to reduce VMT within these areas, it is not anticipated to reduce the VMT generation to less than significant levels (85% below the regional mean). As such, future development within these areas would most likely have a VMT related impact, even with the Rural Mobility Hub designation. Thus, additional CEQA work would be required for development to occur.

Figure 8: Potential Rural Mobility Hub Locations





4.0 Recommendations

This section provides recommendations on how the County can best move forward in expanding the regional transit network within the Unincorporated County.

4.1 Coordination with SANDAG

Continued coordination with SANDAG staff will be key in both prioritizing the proposed future transit improvements within the Unincorporated County as well as facilitating the further expansion of the regional transit network further into the Unincorporated County. As such, the following efforts are recommended:

Establish Targets: The County should continue to coordinate with SANDAG staff to better understand and identify the land uses, population density, and transportation network indicators and metrics used most when developing the future transit network within the RTP. The County can then use this information to develop a planning framework which establishes a series of land use and transportation infrastructure related targets. This framework can then be used in subsequent planning and implementation efforts to further incentivize land use growth within the Transit Opportunity Areas (outlined in Section 3.3) and help draw future transit services to these areas.

Grant Opportunities: As noted in Section 2.3, the 2021 Regional Plan has reserved over \$5 billion for the implementation of the proposed Mobility Hub network. However, the exact location and scope of the improvements included within the Mobility Hub network have not yet been defined. To further this effort and incorporate the SANDAG Member Agencies into the process, the 2021 Regional Plan has set aside \$837 million in planning capital grant funding to assist with the planning and implementation of the Mobility Hub network. These grants may provide ideal opportunities to fund the planning and subsequent CEQA efforts to increase the land use densities, implement multi-modal infrastructure, and incentivize infill/TOD style development within the Lakeside, Otay, and San Dieguito Village Areas (all of which are located within planned Mobility Hubs). With these planning efforts in place, subsequent phases of the grant program could then be used to fund the construction of the needed transportation infrastructure that is identified throughout the planning process.

2025 Regional Plan: RTPs are generally released every four years; as such, the next San Diego Forward Plan should be released in Year 2025. Over this time period, it is recommended that the County continue to coordinate with SANDAG staff on their planning and implementation efforts for the Transit Opportunity Areas outlined in Section 3.3. If the County can show that they have further incentivized higher density land use growth within these areas, or similar key areas, then additional transit services to these areas could be planned or better defined within the next RTP.

4.2 Implementation Options

The following provides three different options in which the County can take in implementing the land use and mobility changes that are needed to draw additional transit services to the Unincorporated County.

Transit Development Specific Plans

High-frequency regional transit service is typically only extended to areas which currently have high population or employment densities (or both). Therefore, it cannot be assumed that the high-frequency transit services will be extended into the Unincorporated County prior to the buildout of its village areas. This presents an issue for future development within these areas as they are currently projected to generate VMT at a higher rate than the regional threshold (as shown in Figure 1) and they cannot rely



on the formation of future TPAs¹¹ to alleviate their VMT related impacts. As such, development within these areas would be identified as having a significant and unavoidable VMT related impact¹². Therefore, the majority, if not all of the development within these Transit Opportunity Areas would be required to conduct an environmental impact report (EIR) to disclose these impacts and seek an override from the board, even if future transit services are planned within the area.

To help streamline the CEQA process and incentive growth and development within the identified Transit Opportunity Areas, the County can develop a specific plan for one (or multiple) of the Transit Opportunity Sites. The development of a specific plan will allow the County to re-evaluate the land use mixes and densities within these areas, ensure that they are consistent with SANDAG's transit targets, and implement specific policies for these areas to ensure the future development adhere to infill/TOD styles including minimum FAR and parking requirements. A specific plan can also re-evaluate the transportation network within the area and ensure that it provides the multi-modal connectivity that is needed to connect the future transit services to the surrounding land uses as well as maintain consistency with what is envisioned within SANDAG's proposed Mobility Hub network.

The accompanying EIR with any specific planning effort will allow for the VMT related impacts associated with the increase in develop to be disclosed and approved by the Board. The EIR can also tie the plans mitigation strategies to the development of SANDAG's Mobility Hub network as well as the planned expansion of the transit network potentially providing a nexus for future development within these areas pay their fair share towards the implementation of these improvements and services. Future development within these areas will also be able to tier off the findings of the specific plan EIR and would be eligible for 15182 development.

Transit Development Specific Plan Examples

The following provides examples of three separate, recently completed, specific plans that focused on increasing land use densities around existing or proposed transit stations. Each plan also recommend enhancements to the multi-modal infrastructure around the transit station to better connect the land uses to the transit services.

Similar efforts have recently been completed by the City of San Diego with both the Morena Corridor¹³ and Balboa Station¹⁴ specific plans at future stations along the Mid-Coast Trolley Line. The specific plans increased land use densities within the study area, identified enhancements to the internal multi-modal network to provide better connectivity to the planned transit stations, and established policies and guidelines to ensure TOD style development would occur. The specific plans also included a subsequent CEQA effort which provides environmental clearance for planned development within the study areas. The Balboa Station Specific Plan was funded through a California Strategic Growth Council Sustainable Communities Planning Grant.

¹¹ As noted in Section 15064.3(1)(a):

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.

TPAs are only designated when associated with existing transit facilities. Therefore, land development near planned or future transit services and/or facilities can not be assumed to have a less than significant impact until the transit is implemented.

¹² As outlined in the *California Air Pollution Control Officers Association (CAPCOA) Qualifying Greenhouse Gas Mitigation Measures* study identifies a maximum feasible VMT mitigation of 15% for projects within suburban areas. Most locations within the County, even within suburban areas, tend to generate VMT at or above the regional mean. As such, it would be infeasible to mitigate their impacts to 15% below the regional mean through VMT reducing mitigation.

¹³ Morena Corridor: <https://www.sandiego.gov/planning/community/specificplans/morena-corridor>

¹⁴ Balboa Station: <https://www.sandiego.gov/planning/community/specificplans/balboa-station>



Another example is the City of El Cajon Transit District Specific Plan (TDSP)¹⁵. Similar to the two City of San Diego examples, TDSP incentivized infill/TOD style development around the El Cajon Transit Center through increased land use densities and the development of a strong multi-modal network connecting the transit center and the adjacent land uses. The Program EIR for the TDSP allows for development within the study area to be streamlined through the 15182 process. Develop of the TDSP and its EIR was funded through a SANDAG grant, similar to what us proposed in the 2021 Regional Plan. Since its adoption, the City of El Cajon has been awarded multiple Highway Safety Improvement Program (HSIP) grants to fund the multi-modal capital improvements that were included in the TDSP.

Focused General Plan Update

In-lieu of developing specific plan(s) for the Transit Opportunity Sites (as outlined above), the County can combine the planning and CEQA efforts for the Transit Opportunity Sites into a focused General Plan update. Including these efforts into a focused General Plan update will allow the County to synchronize and consolidate the development of the transit opportunity areas with other parallel planning such as the Climate Action Plan (CAP), infill opportunity areas, and smart growth planning. Additionally, including the Transit Opportunity Sites directly into the General Plan will still allow the development within these areas to be streamlined through the 15183 process.

Finally, incorporating the planning and CEQA process for the Transit Opportunity Sites into a focused General Plan update will allow for their associated mitigation and facility needs to be integrated seamlessly into the County's development impact fee and mitigation monitoring programs. They can also rely on other features and/or components of the focused General Plan update to allow for self-mitigation or partial mitigation based on the implementation of other planning efforts.

Developing Transit Overlay Zones

A final option for the County to implement the Transit Opportunity Sites, is to amend the zoning code to incorporate a transit overlay zone. The transit overlay zones can be implemented within the Transit Opportunity Sites to encourage infill/TOD style developments. The overlays can allow for increases in land use density, set a minimum floor to area ratios, and reduce parking standards around potential station areas. As noted in Section 1.3, these are key features for developments located within TPAs to reduce or eliminate VMT related impacts and is encouraged by SB-743. The overlays can also allow for a mix of uses to provide more employment and commercial service options for residents within the area, resulting a greater potential for internal trip capture and mode shift, resulting decreased levels of VMT generation.

To implement the transit overlay zones the County will most likely need to conduct a programmatic EIR to document and disclose the impacts associated with the increased densities within the overlay zones, similar to what was required for the Agricultural Promotion Program¹⁶. Development within the Transit Opportunity Sites would be able to tier off this EIR to help streamline the CEQA process; however, since the EIR will be programmatic in nature, a project level CEQA analysis for individual projects within the Transit Opportunity Sites will still most likely be required.

Items to Consider when Choosing a Process

Each implementation option outlined above has its own set of pros and cons. Therefore, the following items should be considered in determining whether it is best to incorporate the planning and CEQA efforts for the Transit Opportunity Sites into or into specific plan(s), a focused General Plan update, or the development of transit overlay zones:

¹⁵ TDSP: <https://www.elcajon.gov/your-government/departments/community-development/planning/transit-district-specific-plan>

¹⁶ APP: <https://www.sandiegocounty.gov/pds/advance/agriculturepromotion.html>



- Is the 15182 or 15183 process the more preferable for the implementation of future development within these areas?
- Which options presents the best opportunity for grant funding (section 2.3)?
- Would the timing align with the development and publishing of the 2025 Regional Plan?
- Which is the best option to integrate these changes into the 2025 SCS?



Attachment 1
Area Type Definition



As used in this Report, location settings are defined as follows:

Urban: A project located within the central city and may be characterized by multi-family housing, located near office and retail. Downtown Oakland and the Nob Hill neighborhood in San Francisco are examples of the typical urban area represented in this category. The urban maximum reduction is derived from the average of the percentage difference in per capita VMT versus the California statewide average (assumed analogous to an ITE baseline) for the following locations:

Location	Percent Reduction from Statewide VMT/Capita
Central Berkeley	-48%
San Francisco	-49%
Pacific Heights (SF)	-79%
North Beach (SF)	-82%
Mission District (SF)	-75%
Nob Hill (SF)	-63%
Downtown Oakland	-61%

The average reflects a range of 48% less VMT/capita (Central Berkeley) to 82% less VMT/capita (North Beach, San Francisco) compared to the statewide average. The urban locations listed above have the following characteristics:

- o Location relative to the regional core: these locations are within the CBD or less than five miles from the CBD (downtown Oakland and downtown San Francisco).
- o Ratio or relationship between jobs and housing: jobs-rich (jobs/housing ratio greater than 1.5)
- o Density character
 - typical building heights in stories: six stories or (much) higher
 - typical street pattern: grid
 - typical setbacks: minimal
 - parking supply: constrained on and off street
 - parking prices: high to the highest in the region
- o Transit availability: high quality rail service and/or comprehensive bus service at 10 minute headways or less in peak hours

Compact infill: A project located on an existing site within the central city or inner-ring suburb with high-frequency transit service. Examples may be community redevelopment areas, reusing abandoned sites, intensification of land use at established transit stations, or converting underutilized or older industrial buildings. Albany and the Fairfax area of Los Angeles are examples of typical compact infill area as used here. The compact infill maximum reduction is derived from the average of the percentage difference in per capita VMT versus the California statewide average for the following locations:

Location	Percent Reduction from Statewide VMT/Capita
Franklin Park, Hollywood	-22%
Albany	-25%
Fairfax Area, Los Angeles	-29%
Hayward	-42%

The average reflects a range of 22% less VMT/capita (Franklin Park, Hollywood) to 42% less VMT/capita (Hayward) compared to the statewide average. The compact infill locations listed above have the following characteristics:

- o Location relative to the regional core: these locations are typically 5 to 15 miles outside a regional CBD
- o Ratio or relationship between jobs and housing: balanced (jobs/housing ratio ranging from 0.9 to 1.2)
- o Density character
 - typical building heights in stories: two to four stories
 - typical street pattern: grid
 - typical setbacks: 0 to 20 feet
 - parking supply: constrained
 - parking prices: low to moderate
- o Transit availability: rail service within two miles, or bus service at 15 minute peak headways or less



Understanding and Using the Fact Sheets



As used in this Report, additional location settings are defined as follows:

Suburban Center: A project typically involving a cluster of multi-use development within dispersed, low-density, automobile dependent land use patterns (a suburb). The center may be an historic downtown of a smaller community that has become surrounded by its region's suburban growth pattern in the latter half of the 20th Century. The suburban center serves the population of the suburb with office, retail and housing which is denser than the surrounding suburb. The suburban center maximum reduction is derived from the average of the percentage difference in per capita VMT versus the California statewide average for the following locations:

Location	Percent Reduction from Statewide VMT/Capita
Sebastopol	0%
San Rafael (Downtown)	-10%
San Mateo	-17%

The average reflects a range of 0% less VMT/capita (Sebastopol) to 17% less VMT/capita (San Mateo) compared to the statewide average. The suburban center locations listed above have the following characteristics:

- Location relative to the regional core: these locations are typically 20 miles or more from a regional CBD
- Ratio or relationship between jobs and housing: balanced
- Density character
 - typical building heights in stories: two stories
 - typical street pattern: grid
 - typical setbacks: 0 to 20 feet
 - parking supply: somewhat constrained on street; typically ample off-street
 - parking prices: low (if priced at all)
- Transit availability: bus service at 20-30 minute headways and/or a commuter rail station

While all three locations in this category reflect a suburban "downtown," San Mateo is served by regional rail (Caltrain) and the other locations are served by bus transit only. Sebastopol is located more than 50 miles from downtown San Francisco, the nearest urban center. San Rafael and San Mateo are located 20 miles from downtown San Francisco.

Suburban: A project characterized by dispersed, low-density, single-use, automobile dependent land use patterns, usually outside of the central city (a suburb). Suburbs typically have the following characteristics:

- Location relative to the regional core: these locations are typically 20 miles or more from a regional CBD
- Ratio or relationship between jobs and housing: jobs poor
- Density character
 - typical building heights in stories: one to two stories
 - typical street pattern: curvilinear (cul-de-sac based)
 - typical setbacks: parking is generally placed between the street and office or retail buildings; large-lot residential is common
 - parking supply: ample, largely surface lot-based
 - parking prices: none
- Transit availability: limited bus service, with peak headways 30 minutes or more

The maximum reduction provided for this category assumes that regardless of the measures implemented, the project's distance from transit, density, design, and lack of mixed use destinations will keep the effect of any strategies to a minimum.



Attachment 2
2021 Regional Plan - Table A.14



Table A.14: Mobility Hubs and Flexible Fleets

Mobility Hubs and Flexible Fleets				
Project ID	Year Built	Category	Project Name	Description
MH1	2025	Mobility Hubs	Mobility Hub Amenities	Mobility Hub amenities including secure micromobility parking and e-charging, interactive travel kiosks, electric vehicle charging infrastructure, passenger loading zones, parcel delivery lockers, and carshare parking
MH2	2035	Mobility Hubs	Mobility Hub Amenities	Mobility Hub amenities including secure micromobility parking and e-charging, interactive travel kiosks, electric vehicle charging infrastructure, passenger loading zones, parcel delivery lockers, and carshare parking
MH3	2050	Mobility Hubs	Mobility Hub Amenities	Mobility Hub amenities including secure micromobility parking and e-charging, interactive travel kiosks, electric vehicle charging infrastructure, passenger loading zones, parcel delivery lockers, and carshare parking
MHLA2	2035	Mobility Hubs	Other Mobility Hub Land Acquisition	Land acquisition for additional future Mobility Hub anchor stations
CCS11	2035	Mobility Hubs	Complete Streets Improvements	Complete streets improvements within Mobility Hubs such as pedestrian, micromobility, and other traffic calming treatments that complement the Adopted Regional Bike Network
CCS12	2050	Mobility Hubs	Complete Streets Improvements	Complete streets improvements within Mobility Hubs such as pedestrian, micromobility, and other traffic calming treatments that complement the Adopted Regional Bike Network
FF1	2025	Flexible Fleets	Flexible Fleets Operations	Operations for Flexible Fleet services including micromobility, ridehail/carshare, rideshare microtransit, and last mile delivery
FF2	2035	Flexible Fleets	Flexible Fleets Operations	Operations for Flexible Fleet services including micromobility, ridehail/carshare, rideshare microtransit, and last mile delivery
FF3	2050	Flexible Fleets	Flexible Fleets Operations	Operations for Flexible Fleet services including micromobility, ridehail/carshare, rideshare microtransit, and last mile delivery
				Cost (\$2020) Millions



Attachment 2
2021 Regional Plan - Table A.17

Table A.17: Supporting Policies and Programs (\$2020) Millions

Supporting Policies and Programs (\$2020) Millions				
	2025	2035	2050	Total
Land Use and Regional Growth				
Planning and Capital Mobility Hub/Smart Growth/Vehicle Miles Traveled Reduction Grants	\$75	\$262	\$500	\$837
Member Agency Resources to enhance development review/processes/update policies	\$25	\$100	\$208	\$333
Housing				
Affordable Housing Grant Program	\$730	\$1,400	\$500	\$2,630
Climate Action Planning				
CAP Monitoring Program	\$4	\$20	\$12	\$37
CAP Implementation Grants	\$20	\$100	\$150	\$270
Regional Carbon Reduction Program Management	\$6	\$150	\$150	\$306
Climate Adaptation and Resilience				
Climate Adaptation and Resilience Program	\$8	\$75	\$75	\$158
Nature-based Climate Solutions	\$40	\$325	\$200	\$565
Resilient Capital Grants and Innovative Solutions	\$20	\$215	\$100	\$335
Electric Vehicles				
Incentives for Zero-Emission Vehicles	\$52	\$552	—	\$604
EV Charging Stations	\$45	\$133	\$91	\$270
Hydrogen Fueling Stations	—	\$100	\$150	\$250
Zero-Emission Buses and Infrastructure	\$75	\$250	\$332	\$657
Goods Movement Vehicles and Infrastructure	\$25	\$100	\$104	\$229
Parking and Curb Management				
Member agency resource/coordination	\$8	\$100	\$40	\$148



Supporting Policies and Programs (\$2020) Millions

	2025	2035	2050	Total
Transportation Demand Management				
GO by BIKE	\$0.2	\$0.5	\$1	\$1
TDM Innovation and Shared Streets Grants	\$1	\$50	\$4	\$55
E-bike incentive	\$5	\$15	\$15	\$35
Program Administration	\$19	\$59	\$89	\$167
Commuter Services and Bike Program	\$18	\$35	\$56	\$109
Rideshare Incentive Program	\$1	\$1	\$2	\$4
Marketing, Outreach, and Education	\$11	\$23	\$35	\$69
TDM Ordinance	\$8	\$40	\$60	\$108
Vision Zero				
Member agency project resource/coordination	\$6	\$25	\$15	\$46
Community Based Education	\$4	\$25	\$25	\$54
Capital and Planning grants	\$25	\$150	\$150	\$325

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**Attachment E – VMT Mitigation
Program Memorandum**



MEMORANDUM

To: Jacob Armstrong and Damon Davis; County of San Diego
From: Stephen Cook, TE, Intersecting Metrics
Date: November 15, 2021
Regarding: County of San Diego - Programmatic VMT Mitigation Options

The purpose of this memo is to evaluate potential programmatic vehicle miles traveled (VMT) mitigation options for the unincorporated portions of San Diego County (County).

1.0 Background

1.1 SB-743

On September 27, 2013, Governor Edmund G. Brown, Jr. signed SB-743 into law, starting a process that is expected to fundamentally change the way transportation impact analysis is conducted under CEQA. Within the State's CEQA Guidelines, these changes included elimination of auto delay, level of service (LOS), and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts.

On December 2018, the Resources Agency certified and adopted the CEQA Guidelines update package, which included the California Natural Resources Agency Guidelines for the Implementation of the California Environmental Quality Act. As part of this package the CEQA Guidelines were updated to include the new impact standards and criteria for transportation related impacts, as 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.

1.2 OPR Technical Advisory

As a result, the California Governor's Office of Planning and Research (OPR) updated and released the *Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory)*¹ in December 2018. The Technical Advisory provides guidance and recommendations on how jurisdictions can update their transportation guidelines to be consistent with SB-743 and the updated CEQA guidelines. The Technical Advisory also provides substantial evidence for a series of recommended VMT based significance thresholds, in which jurisdictions can adopt, or project applicants can use in cases where jurisdictional specific standards are not provided.

The recommended VMT impact thresholds provided within OPR's Technical Advisory are as follows:

- *Residential Projects:* Projects that generate a VMT per capita at or below 85% of the regional mean have a less than significant impact.

¹ OPR Technical Advisory: https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf



- *Commercial Office Project*: Projects that generate a VMT per employee at or below 85% of the regional mean have a less than significant impact.
- *Commercial Retail*: Projects that would result in no net increase in VMT within the region have a less than significant impact.
- *Transportation Projects* – Projects that do not induce additional vehicular travel have a less than significant impact.

The County does not currently have adopted VMT significance thresholds. Therefore, private applicants currently utilize the standards, thresholds, and methodologies outlined in OPR's Technical Advisory for guidance in identifying VMT related impacts within the unincorporated county.

2.0 Mitigating VMT Related Impacts

VMT reduction and mitigation can be accomplished with the implementation of multi-modal infrastructure (such as bicycle, pedestrian, and transit facilities) which provides users more options and connections between the various modes of travel. However, multi-modal infrastructure is most effective when implemented as a system, with limited gaps, and within areas with a high density of land uses, creating a higher propensity for users to be able to complete their trip only while utilizing the available multi-modal facilities. Therefore, VMT based mitigation is typically best dealt with programmatically through comprehensive and systemwide changes and improvements in lieu of spot treatments. Programmatic mitigation measures, such as a VMT Based Fee Programs or VMT Mitigation Banks tend to be the most effective in mitigating VMT based impacts, as compared to transportation demand management (TDM) plans / ordinances or individual spot treatments directly implemented by new development.

2.1 VMT Reduction Elasticity

Research has found that the effectiveness of VMT related mitigation can be limited based on the location setting in which the infrastructure and/or programs are being implemented (Urban, Suburban, or Rural)². *The California Air Pollution Control Officers Association (CAPCOA) published the Quantifying Greenhouse Gas Mitigation Measures - A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures in August 2010 (CAPCOA GHG Handbook)* identifies the following limits to VMT reduction measures, by location type³:

Urban: VMT reducing measures within urban areas (Examples: Downtown, Bankers Hill and Hillcrest neighborhoods of the City of San Diego) can achieve a maximum reduction of 75%, while non-urban areas with compact infill land uses, similar to that which is found in urban areas, can achieve a maximum VMT reduction of 35% (Examples: El Cajon Boulevard Corridor, University Avenue Corridor, within the City of San Diego).

Suburban: VMT reducing measures within typical suburban areas can achieve a maximum reduction of 15% (20% within Suburban Centre areas, such as Downtown La Mesa, Downtown El Cajon, and the Towne Center areas of Santee).

Rural: No maximum VMT reduction is identified within rural areas; however, there are very few VMT reducing measures outlined in the CAPCOA GHG Handbook that apply within rural areas. As such, this naturally limits the VMT reductions that can be achieved within rural areas, such as the majority of areas within the unincorporated portions of the County, not located within the Village Areas.

² See Pages 59 & 60 of the CAPCOA GHG Handbook for detailed definitions of the location settings.
<http://www.aqmd.gov/docs/default-source/ceqa/handbook/capcoa-quantifying-greenhouse-gas-mitigation-measures.pdf>

³ Location types are defined within the CAPCOA GHG Handbook on Pages 59 & 60. These pages are provided in **Attachment 1**.



As noted above, VMT within suburban areas can only be reduced by a maximum of 15% through mitigation. As outlined in OPR's Technical Advisory, land use developments that generate a VMT per capita/VMT per employee above 85% of the regional mean are considered to have a significant VMT related impact. This presents a significant issue for new developments within suburban and rural areas, as they typically generate a VMT per capita/VMT per employee at or above the regional mean. Thus, new development within these areas would need to reduce their VMT generation by 15% or more to alleviate their impacts to a less than significant level. Therefore, the majority of land use developments within these areas are not able to feasibly mitigate their VMT related impacts based on localized improvements alone.

2.2 Programmatic VMT Mitigation Options

VMT Mitigation Programs develop 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.

Relying on new development to provide on-site or localized mitigation can result in a dis-jointed multi-modal network with large gaps. Localized mitigation also does not take advantage of areas with larger populations where there is a higher propensity for existing travels to use the multi-modal infrastructure implemented through the program in-lieu of personal automobile travel. As such, VMT Mitigation Programs allow for developers to take credit for VMT that is reduced from existing land uses, thus, reducing the net VMT of the jurisdiction, or the region as a whole. Thus, reducing the existing VMT allows for VMT reduction credits to be taken from a much larger pool of land uses instead of being limited to the VMT in which a specific project, or its directly surrounding area, generates. The following are different examples of programmatic VMT mitigation models that can be implemented:

VMT Based Fee Program - Developments are assessed a fee based on the severity of their VMT related impact. The fee will be based on new development's fair share cost to implement off-site VMT reducing infrastructure to offset or reduce new development's impact to less than significant. The revenue collected from the fee program can then be used to implement the multi-modal infrastructure improvements outlined in the RTP, or other CIP programs.

VMT Mitigation Banking - Developments can 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 very similar to a biological mitigation banking program. The fees collected from this program would then be used to construct additional VMT reducing infrastructure in new locations, or be used to close gaps within the existing multi-modal network, thus making the network more efficient.

VMT Exchange Program - Developments with VMT related impacts would 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 would allow 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.

Hybrid Program - VMT mitigation programs are not just limited to using a single methodology, a hybrid program, using components from the three types listed above, can also be developed.

VMT mitigation models help to provide a bridge for new development, within suburban and rural areas, to feasibly mitigate their VMT related impacts. It does this by allowing new development to invest in



multi-modal infrastructure where it is the most effective and will provide the most benefit for the highest number of people within the region. It also provides an equitable option for smaller new developments to mitigate their impacts, as it will provide them a path forward to affordable, feasible mitigation. This will allow smaller new development to continue to utilize the mitigated negative declaration CEQA process in-lieu of requiring a full environmental impact report to disclose significant and unavoidable VMT related impacts.

3.0 Peer VMT Reduction Programs

The changes to the CEQA guidelines associated with SB-743 went into effect on July 1, 2020. In response to these changes several jurisdictions throughout the state are currently in the process of developing and testing VMT mitigation programs to provide a path for new development to mitigate their VMT related impacts. However, only one jurisdiction within the region, the City of San Diego, has adopted and implemented a VMT Mitigation Program at this point.

City of San Diego Active Transportation In-Lieu Fee Program - The City of San Diego adopted their Active Transportation In-Lieu Fee Program (ATILFP)⁴, in November 2020. The ATILFP collects fees from new development that is identified to have a VMT related impact and invests that revenue into VMT reducing infrastructure (bike facilities, pedestrian facilities, transit service, and micro-mobility) in the areas of the City which have the highest densities (urban areas) and where the infrastructure will be the most effective. This allows new development located within the suburban areas of the City to mitigate their VMT related impacts via multi-modal infrastructure implemented within the most effective areas in the City. Therefore, the program results in lower costs to mitigate the impacts of new development, as well as additional investment in multi-modal infrastructure where it is the most needed and effective. The City's ATILFP imposes a fee of \$1,400 per mile of vehicular travel in which a development needs to reduce to mitigate their impact.

It should be noted that both the City of Chula Vista and the City of Encinitas are in the process of developing a VMT Mitigation Program; however, a draft fee program has not yet been released. Additionally, other agencies around the state are investigating and testing different VMT Mitigation Programs including LADOT & LA Metro, Western Riverside Council of Governments (WRCOG)⁵, Metropolitan Transportation Commission (MTC)⁶, and Contra Costa County⁴. However, these jurisdictions have not yet released a draft program to this point.

4.0 Cost to Mitigate VMT within the Unincorporated County

Based on an initial study conducted by Fehr & Peers in March 2021, it is estimated that the cost to reduce one mile of VMT within the County of San Diego would be between \$10,000 and \$19,000. The details of this analysis are provided in **Attachment 2**. Based on this analysis it would be 7 to 13 times more expensive for new development to mitigate their VMT related impacts, via a program that operates solely within the unincorporated County, than the City of San Diego's ATILFP. As noted under Section 2.1, VMT reducing infrastructure is very effective in high density urban areas. Thus, multi-modal infrastructure implemented in urban areas such as Downtown, Bankers Hill and Hillcrest will reduce a greater amount of VMT than the same infrastructure would in suburban areas such as Lakeside, Spring Valley and Fallbrook. Therefore, even though the cost to implement VMT reducing infrastructure is similar within both area types, the infrastructure located within the urban areas may be 10 times more effective at reducing VMT. As such, the cost per VMT reduced ends up being substantially lower within more urban areas.

⁴ <https://www.sandiego.gov/complete-communities>

⁵ https://issuu.com/fehrandpeers/docs/vmt_exchangeandbank

⁶ Received a Caltrans Sustainability Grant



Additionally, based on the County VMT analysis provided in Attachment 2, it is not expected that the County's transportation network has the capacity to implement a sufficient number of VMT reducing infrastructure, in VMT efficient areas, to reduce the VMT related impacts associated with new development to a less than significant level. If a VMT Mitigation Program is only focused to Key Village Core Areas or a set smart growth areas a VMT Mitigation Program may be more available and cost effective. However, additional research and study is needed to confirm this approach.

5.0 Recommendations

Based on the information provided in the previous sections the following recommendations are provided on how the County can move forward in implementing a VMT Mitigation Program.

5.1 Work With SANDAG to Develop a Regional VMT Mitigation Program

As noted in Section 4.0, mitigating VMT related impacts exclusively within the unincorporated portions of the County may be significantly more costly than other jurisdictions and may also not be fully feasible. Therefore, it is recommended that the County work with SANDAG to develop a regional VMT Mitigation Program that will help to fund the multi-modal infrastructure identified within the *San Diego Forward - The 2021 Regional Plan* and reduce VMT throughout the region as a whole. A regional VMT mitigation program will allow new development within the County to get VMT credit from regional infrastructure such as new transit lines and services as well as multi-modal infrastructure that is being implemented within highly efficient areas. Additionally, the *San Diego Forward - The 2021 Regional Plan* DEIR has identified that the implementation of the proposed Plan will result in a 14.1% reduction in the regions VMT per capita by 2050 (as compared to Year 2016 conditions). This in conjunction with other localized improvements, such as Transportation Demand Management (TDM)⁷, may be sufficient to reduce VMT related impacts within the unincorporated portions of the County to less than significant.

Additionally, if the County works with SANDAG in the development of a Regional VMT Mitigation Program, they can help to develop the process in which regional multi-modal infrastructure is prioritized and implemented. This may help to ensure that additional transit services and other regional VMT reducing infrastructure, included in the program, will be implemented within the unincorporated areas. It should also be noted that the development of a Regional VMT Mitigation Program would not preclude the County from developing and implementing its own localized VMT Mitigation Program. The two programs could work in unison and have a similar relationship as SANDAG's Regional Transportation Congestion Improvement Program (RTCIP), and the County's Transportation Impact Fee Program previously did from 2005 to 2020.

Finally, the County and SANDAG could join together to pursue a Caltrans Partnership Grant, which would provide funding for the development and implementation of the Regional VMT Mitigation Program. County and SANDAG staff have had initial discussions regarding this opportunity and have identified the 2022/2023 grant cycle as a potential timeframe to pursue this option.

5.2 Work with the City of San Diego to Develop a Joint Program

As noted in Section 3.0, the City of San Diego has already established a VMT Mitigation Program, with a fee rate of \$1,400 per reduced VMT. This is substantially lower than the projected cost of \$10,000 and \$19,000 per reduced VMT that is anticipated within the unincorporated areas. It is anticipated that the City has enough population and network capacity within its urban areas to accommodate additional VMT reducing infrastructure, beyond what it needs to accommodate its own future growth. Therefore, if a regional program with SANDAG cannot be established, it is recommended that the County work with the City of San Diego to either expand the ATILFP into the unincorporated areas, or develop a hybrid program where new development could mitigate a portion of their VMT related impacts through a localized County VMT Mitigation Program and mitigate the remaining portion of their VMT related

⁷Transportation Demand Management: Policies, infrastructure and strategies that aim to reduce travel demand, particularly single occupant vehicles, or to redistribute that demand to off-peak times.



impacts through City's ATIL Fee Program. This approach would allow new development within the unincorporated areas to fully mitigate their VMT related impacts at a more affordable rate while still helping to fund some VMT reducing infrastructure within targeted areas of the County.

Similar to the Regional VMT Mitigation Program, the County of San Diego could partner with the City of San Diego to pursue a Caltrans Sustainability Grant. The grant could assist with the funding for the development and implementation of the program. During the outreach process for the City's ATILFP, County and City staff had preliminary discussions about the potential of a joint program, or allowing new development within the County to participate in the ATILFP. The County could reignite these discussions with City staff if this option is chosen.

Finally, it should be noted that this approach will most likely require some form of CEQA documentation and review process. The City of San Diego did include the ATILFP as a mitigation measure for their *Complete Communities Housing Solutions and Mobility Choices PEIR*⁸. This allowed the City to link the benefits of the program directly to the anticipated impacts associated with new development within the City. As such, the County may need to incorporate the proposed VMT Mitigation Fee Program as a mitigation measure within a subsequent EIR effort, such as the Climate Action Plan EIR.

5.3 Develop a County Specific VMT Mitigation Program

The final option would be for the County to develop their own localized VMT Mitigation Program. As outlined in Section 4.0, the cost to fully mitigate VMT impacts solely within the unincorporated areas may not be financially feasible for most new development projects, and the County may not have the VMT reducing capacity to fully mitigate the VMT related impacts associated with all new development within the unincorporated areas. As such, under this approach the County would most likely need to conduct a subsequent CEQA effort to identify and disclose the VMT related impacts associated with new development, identify the VMT Mitigation Program as partial mitigation for the impacts, and identify that the mitigation would not be sufficient to fully mitigate all VMT related impacts, thus concluding that the VMT related impacts associated with new development would be significant and unavoidable.

The County could peruse a Caltrans Sustainable Communities Grant to assist with the funding for the development of the fee program and the subsequent EIR effort. However, since it is anticipated that the County would not be able to fully mitigate its VMT related impacts through the program, it may not be as competitive for grant funding as other efforts.

⁸https://www.sandiego.gov/sites/default/files/final_peir_for_complete_communities_housing_solutions_and_mobility_choices.pdf



Attachment 1
Area Type Definition



As used in this Report, location settings are defined as follows:

Urban: A project located within the central city and may be characterized by multi-family housing, located near office and retail. Downtown Oakland and the Nob Hill neighborhood in San Francisco are examples of the typical urban area represented in this category. The urban maximum reduction is derived from the average of the percentage difference in per capita VMT versus the California statewide average (assumed analogous to an ITE baseline) for the following locations:

Location	Percent Reduction from Statewide VMT/Capita
Central Berkeley	-48%
San Francisco	-49%
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North Beach (SF)	-82%
Mission District (SF)	-75%
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Downtown Oakland	-61%

The average reflects a range of 48% less VMT/capita (Central Berkeley) to 82% less VMT/capita (North Beach, San Francisco) compared to the statewide average. The urban locations listed above have the following characteristics:

- o Location relative to the regional core: these locations are within the CBD or less than five miles from the CBD (downtown Oakland and downtown San Francisco).
- o Ratio or relationship between jobs and housing: jobs-rich (jobs/housing ratio greater than 1.5)
- o Density character
 - typical building heights in stories: six stories or (much) higher
 - typical street pattern: grid
 - typical setbacks: minimal
 - parking supply: constrained on and off street
 - parking prices: high to the highest in the region
- o Transit availability: high quality rail service and/or comprehensive bus service at 10 minute headways or less in peak hours

Compact infill: A project located on an existing site within the central city or inner-ring suburb with high-frequency transit service. Examples may be community redevelopment areas, reusing abandoned sites, intensification of land use at established transit stations, or converting underutilized or older industrial buildings. Albany and the Fairfax area of Los Angeles are examples of typical compact infill area as used here. The compact infill maximum reduction is derived from the average of the percentage difference in per capita VMT versus the California statewide average for the following locations:

Location	Percent Reduction from Statewide VMT/Capita
Franklin Park, Hollywood	-22%
Albany	-25%
Fairfax Area, Los Angeles	-29%
Hayward	-42%

The average reflects a range of 22% less VMT/capita (Franklin Park, Hollywood) to 42% less VMT/capita (Hayward) compared to the statewide average. The compact infill locations listed above have the following characteristics:

- o Location relative to the regional core: these locations are typically 5 to 15 miles outside a regional CBD
- o Ratio or relationship between jobs and housing: balanced (jobs/housing ratio ranging from 0.9 to 1.2)
- o Density character
 - typical building heights in stories: two to four stories
 - typical street pattern: grid
 - typical setbacks: 0 to 20 feet
 - parking supply: constrained
 - parking prices: low to moderate
- o Transit availability: rail service within two miles, or bus service at 15 minute peak headways or less



Understanding and Using the Fact Sheets

As used in this Report, additional location settings are defined as follows:

Suburban Center: A project typically involving a cluster of multi-use development within dispersed, low-density, automobile dependent land use patterns (a suburb). The center may be an historic downtown of a smaller community that has become surrounded by its region's suburban growth pattern in the latter half of the 20th Century. The suburban center serves the population of the suburb with office, retail and housing which is denser than the surrounding suburb. The suburban center maximum reduction is derived from the average of the percentage difference in per capita VMT versus the California statewide average for the following locations:

Location	Percent Reduction from Statewide VMT/Capita
Sebastopol	0%
San Rafael (Downtown)	-10%
San Mateo	-17%

The average reflects a range of 0% less VMT/capita (Sebastopol) to 17% less VMT/capita (San Mateo) compared to the statewide average. The suburban center locations listed above have the following characteristics:

- Location relative to the regional core: these locations are typically 20 miles or more from a regional CBD
- Ratio or relationship between jobs and housing: balanced
- Density character
 - typical building heights in stories: two stories
 - typical street pattern: grid
 - typical setbacks: 0 to 20 feet
 - parking supply: somewhat constrained on street; typically ample off-street
 - parking prices: low (if priced at all)
- Transit availability: bus service at 20-30 minute headways and/or a commuter rail station

While all three locations in this category reflect a suburban "downtown," San Mateo is served by regional rail (Caltrain) and the other locations are served by bus transit only. Sebastopol is located more than 50 miles from downtown San Francisco, the nearest urban center. San Rafael and San Mateo are located 20 miles from downtown San Francisco.

Suburban: A project characterized by dispersed, low-density, single-use, automobile dependent land use patterns, usually outside of the central city (a suburb). Suburbs typically have the following characteristics:

- Location relative to the regional core: these locations are typically 20 miles or more from a regional CBD
- Ratio or relationship between jobs and housing: jobs poor
- Density character
 - typical building heights in stories: one to two stories
 - typical street pattern: curvilinear (cul-de-sac based)
 - typical setbacks: parking is generally placed between the street and office or retail buildings; large-lot residential is common
 - parking supply: ample, largely surface lot-based
 - parking prices: none
- Transit availability: limited bus service, with peak headways 30 minutes or more

The maximum reduction provided for this category assumes that regardless of the measures implemented, the project's distance from transit, density, design, and lack of mixed use destinations will keep the effect of any strategies to a minimum.



Attachment 2
Preliminary VMT Mitigation Cost Study

Programmatic VMT Mitigation Strategies – County Options with Qualitative Comparison

Director Briefing: 2/3/2021



FEHR & PEERS

Mitigation Program Options

Program Type	Description
VMT Fee	Impact fee program based on a VMT reduction goal
VMT Exchange	Developers select from a pre-approved list of mitigation projects/programs based on the developer's needed VMT reduction; developer then funds and implements the selected project/program
VMT Bank	Developer's buy VMT credits that are used to fund larger scale VMT reducing projects or programs. Developers buy the credits and projects/programs are implemented by others

Programmatic VMT Mitigation Questions & Options

Which type of mitigation program?

- VMT Impact Fee: Voluntary (only projects with impacts pay) or Mandatory (all project pay)
- VMT Mitigation Exchange
- VMT Mitigation Bank

Who is the coordinating entity/agency?

- County of San Diego
- Another Agency
 - SANDAG
 - City of San Diego
 - Others that establish a mitigation program (TBD)

Are there any partner agencies?

- No, County of San Diego only
- Yes, partner with other agencies (ex., MTS, NCTD, etc.)

Coordinating Agency Options

County of San Diego

- The County would be responsible for creating and administering the program – **more control for the County**
- Mitigation measures could only be used within the unincorporated County – as the County is primarily rural, mitigation measures there could be **less effective at reducing VMT**

Regional Agency

- A regional agency would create and administer the program for the County and other agencies
- The mitigation measures for projects in the County could be in other geographic areas – measures in more urban areas could be **more effective at reducing VMT**
- The County would have less control over what measures are implemented, and the measures would not likely be in the unincorporated area

Partnerships with Other Agencies - Options

County of San Diego (No Partnership)

- The County would not partner with any other agencies
- Each program could only use mitigation measures under the control/jurisdiction of the County – there would be **fewer mitigation measures available** to developers

Partnership with Other Agencies

- The County, as the coordinating agency, could establish partnerships with other agencies
- The County, as the coordinating agency, could work with other agencies to make **more mitigation measures available** (ex., transit pass subsidies with MTS)
- If the coordinating agency is a regional body, there would be more potential partner agencies

Partnerships with Other Agencies - Options

Potential Partner Agencies	Example Projects
MTS	Purchasing buses, capital improvements, fare subsidies
NCTD	Purchasing buses, capital improvements, fare subsidies
Caltrans	Contribution to unfunded bike/ped projects on the state highway network within the County
SANDAG	Flexible fleets, teleworking, commute program
City of San Diego	County developers could pay into the existing City program

VMT Mitigation Program Alternatives

Program Type?	No Program	VMT Fee (In-Lieu – Only for Projects that Have Impacts)	VMT Fee (Mandatory Applies to Everyone)	VMT Exchange			VMT Bank		
				County	County	Regional	County	County	Regional
Coordinating Agency?	County	County	County	County	County	Regional	County	County	Regional
Partner Agencies?	County Only	County Only	County Only	County Only	County Only	Partnership with SANDAG, participation in City of San Diego program	Partnership with MTS, NCTD, Caltrans	Partnership with SANDAG, participation in City of San Diego program	Partnership with SANDAG, participation in City of San Diego program
Sample Projects	Project design modifications, TDM programs	Pedestrian, bicycle, or transit infrastructure projects Could be standards based (cost to reduce 1 VMT) or plan based (VMT reduced by a specified list of projects)	Same as fee options, + county developed alternative mode incentive program (free bikes, etc.)	Same as fee & exchange county only options, + transit service improvements	Same as exchange & fee options, + transportation telecommute incentive programs	Same as exchange, fee, bank county only options, + transit pass subsidies, transit service improvements			
Likelihood to Fully Mitigate VMT	Low	Low	Low	Low	Medium	High	Low	Medium	High

VMT Mitigation Alternatives Evaluation Questions

- Which program alternatives can fully reduce all VMT associated with future growth in the County? Which alternatives have the highest and lowest VMT reduction potential?
- Which programs have the highest and lowest costs to create the program and for ongoing maintenance of the program?
- Which program alternatives would result in the highest and lowest costs fees, which could affect home prices?

VMT Mitigation Program Alternatives

Program Type?	No Program	VMT Fee (In-Lieu)	VMT Fee (Mandatory)	VMT Exchange			VMT Bank		
	County	County	County	County	County	Regional	County	County	Regional
Coordinating Agency?						Partnership with SANDAG or City of San Diego	Partnership with MTS, NCTD, Caltrans	Partnership with MTS, NCTD, Caltrans	Partnership with SANDAG or City of San Diego
Partner Agencies?	County Only	County Only	County Only	County Only	County Only	Partnership with SANDAG or City of San Diego	County Only	County Only	Partnership with SANDAG or City of San Diego
Pros	<ul style="list-style-type: none"> County control Easy to administer Low risk 	<ul style="list-style-type: none"> County control Straightforward to develop Easy to administer Low risk Could do a GP focused EIR to disclose significant and unavoidable impact and allow tiering 		<ul style="list-style-type: none"> County control Could do a GP focused EIR to disclose significant and unavoidable impact and allow tiering 	<ul style="list-style-type: none"> Medium cost to developers County control Access to more types of mitigation than if County only Could do a GP focused EIR to disclose significant and unavoidable impact and allow tiering 	<ul style="list-style-type: none"> Likely to mitigate most VMT Lower cost to developers Access to more types of mitigation than if County only Could do a GP focused EIR to disclose significant and unavoidable impact and allow tiering 	<ul style="list-style-type: none"> Medium cost to developers County control Access to more types of mitigation than if County only Could do a GP focused EIR to disclose significant and unavoidable impact and allow tiering 	<ul style="list-style-type: none"> Partnership with SANDAG or City of San Diego	<ul style="list-style-type: none"> Likely to mitigate most VMT as compared to other options Lower cost to developers Could do a GP focused EIR to disclose significant and unavoidable impact and allow tiering
Cons	<ul style="list-style-type: none"> Unlikely to fully mitigate VMT High cost to developers 	<ul style="list-style-type: none"> Unlikely to fully mitigate VMT If fully mitigated there would be a high cost and could lead to higher housing costs 		<ul style="list-style-type: none"> Unlikely to fully mitigate VMT High cost to developers (for full mitigation) 	<ul style="list-style-type: none"> Need to establish relationships with partner agencies 	<ul style="list-style-type: none"> Not under County control Mitigation measures might not benefit County 	<ul style="list-style-type: none"> Unlikely to fully mitigate VMT High cost to developers for full mitigation Annual price variation expensive to develop, maintain 	<ul style="list-style-type: none"> Annual price variation expensive to develop, maintain 	<ul style="list-style-type: none"> Not under County control Mitigation measures might not benefit County Annual price variation expensive to develop, maintain

VMT Mitigation Program Alternatives – Hypothetical

Costs General Plan (SANDAG 2050) Assumptions

Program Type?	VMT Fee (In-Lieu, i.e. only charging projects that have a SI based on the VMT that is needed to reduce)	VMT Fee (Mandatory, i.e. spreading the cost over more growth)	VMT Exchange (only charging projects that have a SI based on the VMT that is needed to reduce)			VMT Bank (only charging projects that have a SI based on the VMT that is needed to reduce)		
			County	County	Regional	County	County	Regional
Coordinating Agency?	County	County	County	County	Regional	County	County	Regional
Partner Agencies?	County Only	County Only	County Only	Partnership with MTS, NCTD, Caltrans	Partnership with SANDAG or City of San Diego	County Only	Partnership with MTS, NCTD, Caltrans	Partnership with SANDAG or City of San Diego
30 Year Program Cost (Capital Cost plus Annual Ongoing Costs)	\$460M	\$460M	\$1B	\$1.9B	\$12B	\$1.8B	\$3B	\$23B
Expected Program VMT Reduction/ % of Reduction Goal	25K VMT 4% of Goal	25K VMT 4% of Goal	85K VMT 13% of Goal	105K VMT 17% of Goal	575K 90% of Goal	185K VMT 30% of Goal	250K VMT 40% of Goal	1.3M VMT 205% of Goal
Total Cost to Reduce 1 VMT for 30 years for full mitigation*	\$19,000	\$19,000	\$11,000	\$18,000	\$22,000	\$10,000	\$12,000	\$18,000
Total Cost per VMT if only charging developers for identified programs (partial mitigation)	\$700/VMT Charged based on number of VMT that need to be reduced	\$90/VMT Charged to all projects based on residential VMT added	\$1,500/VMT Charged based on specific program selected by applicant based on VMT reduction need	\$3,000/VMT Charged based on specific program selected by applicant based on VMT reduction need	\$20,000/VMT Charged based on specific program selected by applicant based on VMT reduction need	\$3,000/VMT Charged to all projects based on residential VMT added	\$5,000/VMT Charged to all projects based on residential VMT added	See full mitigation above
*For the fee program and County lead options, there isn't enough capital improvements or programs that can get close to full mitigation; therefore, the numbers are just reported for comparison purposes.								

VMT Mitigation Program Alternatives – Hypothetical Costs

CAP Smart Growth Option (See Green Highlighted Rows)

Program Type?	VMT Fee (In-Lieu, i.e. only charging projects that have a SI based on the VMT that is needed to reduce)	VMT Fee (Mandatory, i.e. spreading the cost over more growth)	VMT Exchange (only charging projects that have a SI based on the VMT that is needed to reduce)	VMT Bank (only charging projects that have a SI based on the VMT that is needed to reduce)
Coordinating Agency?	County	County	County	County
Partner Agencies?	County Only	County Only	County Only	County Only
30 Year Program Cost (Capital Cost plus Annual Ongoing Costs)	\$460M	\$460M	\$1B	\$1.8B
Expected Program VMT Reduction/ % of Reduction Goal	25K VMT 50% of Goal	25K VMT 50% of Goal	85K VMT 170% of Goal	185K VMT 370% of Goal
Total Cost to Reduce 1 VMT for 30 years for full mitigation*	\$19,000	\$19,000	\$11,000	\$10,000
Total Cost per VMT if only charging developers for identified programs (partial mitigation)	\$9,000/VMT Charged based on number of VMT that need to be reduced	\$800/VMT Charged to all projects based on residential VMT added	See full mitigation above	See full mitigation above
*For the fee program and County lead options, there isn't enough capital improvements or programs that can get close to full mitigation; therefore, the numbers are just reported for comparison purposes.				

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VMT Mitigation Program Alternatives – Case Study Costs

Project	VMT Fee (In-Lieu, i.e. only charging projects that have a SI based on the VMT that is needed to reduce)	VMT Fee (Mandatory, i.e. spreading the cost over more growth)	VMT Exchange (only charging projects that have a SI based on the VMT that is needed to reduce)		VMT Bank (only charging projects that have a SI based on the VMT that is needed to reduce)			
Partner Agencies?	County Only	County Only	County Only	Partnership with MTS, NCTD, Caltrans	Partnership with SANDAG or City of San Diego	County Only	Partnership with MTS, NCTD, Caltrans	Partnership with SANDAG or City of San Diego
Partial Mitigation Option								
Smilax Townhomes 62 units	Unincorporated \$0 - Screened	Unincorporated \$0 - Screened	Unincorporated \$0 - Screened	Unincorporated \$0 - Screened	Unincorporated \$0 - Screened	Unincorporated \$0 - Screened	Unincorporated \$0 - Screened	Unincorporated \$0 - Screened
	Regional \$282,000	Regional \$33,840	Regional \$564,000	Regional \$1.1 million	Regional \$7.5 million	Regional \$1.1 million	Regional \$1.9 million	n/a
Summit Estates 20 SFDs	Unincorporated \$184,000	Unincorporated \$24,000	Unincorporated \$400,000	Unincorporated \$800,000	Unincorporated \$5.2 million	Unincorporated \$800,000 million	Unincorporated \$1.3 million	n/a
	Regional \$520,000	Regional \$66,000	Regional \$1.1 million	Regional \$2.2 million	Regional \$14.7 million	Regional \$2.2 million	Regional \$3.7 million	n/a
Ocean Breeze Ranch 398 SFDs	Unincorporated \$18.8 million	Unincorporated \$2.4 million	Unincorporated \$ 40 million	Unincorporated \$80 million	Unincorporated \$536 million	Unincorporated \$80 million	Unincorporated \$131 million	n/a
	Regional \$25 million	Regional \$3.2 million	Regional \$55 million	Regional \$108 million	Regional \$726 million	Regional \$108 million	Regional \$181 million	n/a
Santoyo 17 SFDs	Unincorporated \$70,000	Unincorporated \$9,000	Unincorporated \$150,000	Unincorporated \$300,000	Unincorporated \$2.2 million	Unincorporated \$300,000	Unincorporated \$500,000	n/a
	Regional \$350,000	Regional \$45,000	Regional \$750,000	Regional \$1.5 million	Regional \$10 million	Regional \$1.5 million	Regional \$2.5 million	n/a

CEQA Considerations – GP Focused EIR

Potential CEQA Clearance for Project Streamlining:

- **Steps in the Process for Providing Streamlining to Applicants** *(that are Consistent with the General Plan and utilize the programmatic VMT mitigation):*

1. Perform a General Plan focused EIR (could be for the mobility element, land use element, etc.) and analyze VMT resulting from growth in the County, this would result in a significant impact.
 - The program would be used as partial mitigation for the impact.
 - The program plus all feasible mitigation* would not mitigate the full impact.
 - The Board would certify the EIR with a statement of overriding considerations for the VMT impact.
2. A land use project with a VMT impact tiers from the certified EIR.
 - Must be consistent with the General Plan and participate in the VMT program.
 - Must also implement other feasible mitigation as identified in the focused EIR.
 - Would receive environmental coverage and use of the already disclosed significant and unavoidable impact.

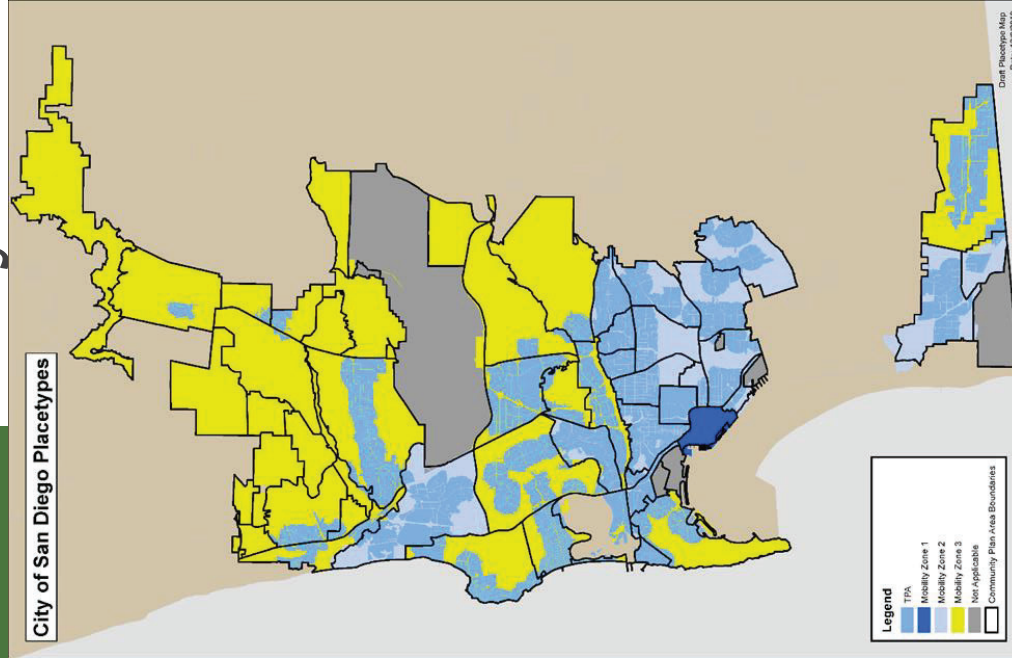
This strategy has been used by other agencies such as the City of San Diego and City of Chula Vista (in process).

*§ 21002. APPROVAL OF PROJECTS; FEASIBLE ALTERNATIVE OR MITIGATION MEASURES
....The Legislature further finds and declares that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.

Initial Conclusions

- Regional programs have the most potential for full mitigation.
- County administered programs have limited potential for full mitigation.
- If partial mitigation is acceptable, County administered programs will have the lowest cost to developers.

City of San Diego Example



Mobility Zone 4

Mobility Zone 4

VMT > 85% of the Regional Average

Development to mitigate VMT by paying the **Active Transportation In Lieu Fee**. Fee is based on active transportation infrastructure improvements in Mobility Zones 2 and 3 to reduce citywide VMT.

Mobility Zone 4

VMT > 85% of the Regional Average

Mobility Zone 3

VMT < 85% of the Regional Average

Mobility Zone 2 (TPAs)

VMT < 85% of the Regional Average

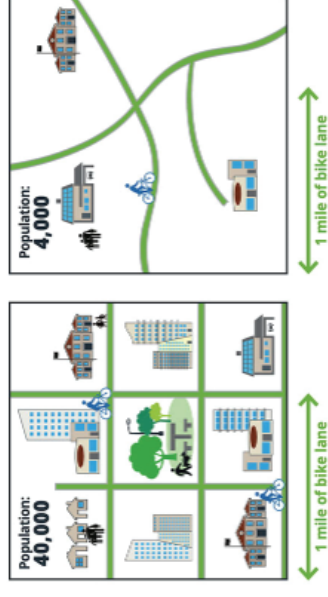
Mobility Zone 1

VMT < 85% of the Regional Average

Mobility Choices Active Transportation In Lieu Fee

- Required in Mobility Zone 4 and optional in Mobility Zones 2 and 3 in-lieu of required Active Transportation Measures
- Investing in VMT reducing infrastructure in Mobility Zone 4 yields the least amount of Citywide VMT reductions
- Instead, it is **cheaper and more efficient** to invest in VMT reducing facilities in Mobility Zones 1, 2 and 3

Each mile of bike lane or sidewalk improvement invested in Mobility Zones 1, 2 or 3 can serve many more people and destinations, which will lead to greater reductions in Citywide vehicle-miles traveled and more walkable, livable neighborhoods.



You would have to build 27 miles of bike lane in Mobility Zone 4 to get the same VMT reductions as 1 mile of bike lane in Mobility Zone 3! We want to build bike lanes where they will be used the most.



vs.

Build 27 miles in
Mobility Zone 4

Build 1 mile in
Mobility Zone 3

Questions?



**Attachment F – Affordable
Housing Memorandum**

Memorandum

Date: December 3, 2021

To: Jacob Armstrong and Damon Davis, County of San Diego

From: Katy Cole, Jon Stanton

Subject: Affordable Housing and SB 743 VMT – Screening Considerations

SD21-0407

Purpose

The Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) offers recommendations to screen affordable housing, indicating that it is presumed to have a less than significant transportation vehicle miles traveled (VMT) impact. The Technical Advisory (Page 14-15) states:

*Adding affordable housing to infill locations generally improves jobs-housing match, in turn shortening commutes and reducing VMT. Further, "... low-wage workers in particular would be more likely to choose a residential location close to their workplace, if one is available." In areas where existing jobs-housing match is closer to optimal, low income housing nevertheless generates less VMT than market-rate housing. Therefore, a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT. **Evidence supports a presumption of less than significant impact for a 100 percent affordable residential development (or the residential component of a mixed-use development) in infill locations. Lead agencies may develop their own presumption of less than significant impact for residential projects (or residential portions of mixed use projects) containing a particular amount of affordable housing, based on local circumstances and evidence.** Furthermore, a project which includes any affordable residential units may factor the effect of the affordability on VMT into the assessment of VMT generated by those units.*

The purpose of this memo is to evaluate affordable housing trip generation using available data sources and County specific data collection to understand if affordable housing in the County generates less trips than market-rate housing. If affordable housing generates less traffic than market-rate housing, then it also generates less VMT than market-rate units in the same location.

This memo determines the difference in trip rates between affordable housing units and market-rate units within the County of San Diego and offers options to consider related to screening affordable housing from VMT impact analysis.

Data Review

Recent evidence shows affordable housing developments produce fewer vehicle trips and therefore lower VMT than equivalent market-rate developments (Clifton et al., 2018). With Senate Bill (SB) 743 determining California Environmental Quality Act (CEQA) transportation impacts through VMT generation, it is important to quantify the reduction in vehicle trips and VMT of affordable housing units to reduce or eliminate their need to mitigate VMT-related impacts for CEQA. This streamlining would support the development of additional affordable housing and reduce VMT.

Our research reviews trip generation studies at existing affordable housing developments. The data is compiled from existing research and national standards and also includes trip generation counts taken at affordable housing developments within the unincorporated areas of San Diego County.

Trip Generation refers to vehicle trips starting and ending at a particular location or land use for a set duration. A trip generation rate (for housing) is the number of trips beginning or ending at a particular location for a particular time divided by the number of units in the development. For purposes of this study, we primarily reviewed typical weekday daily trip generation where available. In some cases, AM and PM peak commute hour data is also provided. All trip generation rates are shown as the number of trips (for the study time period) per housing unit.

We reviewed the following data sources to assist with understanding trip generation characteristics for affordable housing projects:

- *Caltrans Study: Affordable Housing Trip Generation Strategies and Rates* (Clifton, Et. All, September 2018) – This study was conducted for Caltrans and reviewed and summarized data collected in the Bay Area and in Los Angeles for affordable housing projects.
- *City of Los Angeles' Infill and Complete Streets: Capturing VMT Impacts & Benefits Pursuant to CEQA Study* (2017) – This study includes data collection at 42 affordable

housing sites. The affordable housing locations were 100% affordable and were grouped based on proximity to transit (Transit Priority Area [TPA] or non-TPA) and housing type (Family, senior, special needs, or permanent supportive). Counts were conducted in 2016.

- Institute of Transportation Engineers (ITE) Trip Generation Manual – The ITE Trip Generation manual is a collection of data collected throughout the United States to reflect hundreds of different land uses. The most recent edition of the Trip Generation Manual (Edition 11, September 2021) includes affordable housing as a land use category that was studied. This is the first time affordable housing data has been provided in the ITE Trip Generation Manual.

Caltrans Study: Affordable Housing Trip Generation Strategies and Rates

Clifton, et al (2018) studied trip generation rates for affordable housing developments, using three different sources of data including traditional on-site trip generation, household transportation surveys, and Caltrans Household Travel Survey (HTS) data. For the household transportation survey portion, surveys were mailed to residents of affordable housing developments, and for the Caltrans HTS data, sample data was chosen for households who would qualify for affordable housing, but not necessarily be currently living in affordable housing units. Study periods matched ITE peak AM and PM periods. **Table 1** provides a summary of the peak hour trip generation rates reviewed in the study.

Table 1: Caltrans Study: Affordable Housing Trip Generation Strategies and Rates Trip Generation Summary

Land Use Category	Trip Generation Rate Per Dwelling Unit		
	Daily Rate	AM Peak Hour Rate	PM Peak Hour Rate
Affordable Housing	Not Available*	0.53	0.40

Notes: * Daily trip generation rates were not reported in the Clifton, et al (2018) study. Typically, the daily trip generation rate is approximately 8-12% of the peak hour rate, which would result in a daily rate of 4.4 to 5 daily trips using the AM peak hour rate reported in the study.

Source: Clifton, et al, 2018

Los Angeles Study

Fehr and Peers conducted a local trip generation study in 2016 as part of the City of Los Angeles' *Infill and Complete Streets: Capturing VMT Impacts & Benefits Pursuant to CEQA* study. Fehr & Peers collected counts for 42 affordable housing sites, 23 market-rate sites, nine mixed-use sites, and one office site. The affordable housing locations were selected to fit the following criteria: 100% affordable, isolatable use (standalone developments for non mixed-use sites), countable

driveways, and successful development (economically healthy, mature development context), and permission of property owners.

For the affordable housing sites, Fehr and Peers conducted 24-hour video counts at driveways and overnight parking utilization sweeps. The 42 locations were grouped based on proximity to transit (Transit Priority Area¹ [TPA] or non-TPA) and housing type (family, senior, special needs, or permanent supportive). Family affordable housing sites are designed for households with children.

Results showed that trip generation for affordable housing developments of all types during all time periods (Daily, AM peak, PM peak) were lower than ITE trip generation rates for market-rate apartments. Affordable housing for seniors, people with special needs, and permanent supportive housing are substantially lower than both the ITE trip generation rates and family affordable housing trip generation rates. Trip generation rates for sites located inside TPAs are generally lower than sites outside TPAs.

Table 2 summarizes the trip generation for the most relevant locations and categories which are presumed to be outside of TPAs. The LA “outside TPA” category is most comparable to the unincorporated County for present conditions, as well as under the scenario that transit options are enhanced in the more urbanized unincorporated communities as envisioned under regional planning efforts. The research collected for the LA study inside TPAs represent land use dense locations such as downtown LA that are not characteristic of land use patterns in the unincorporated areas of the County.

Table 2: Los Angeles’ Affordable Housing Trip Generation Summary

Land Use Category	Trip Generation Rate Per Dwelling Unit		
	Daily Rate	AM Peak Hour Rate	PM Peak Hour Rate
All Affordable Housing Categories (Outside TPA)	2.48	0.25	0.24
All Family Housing Categories (Outside TPA)	4.15	0.55	0.43

Source: Fehr & Peers.

¹ TPAs as it relates to the LA Affordable Housing Study are areas defined by the Southern California Association of Governments (SCAG) as being within ½ mile of an existing major transit stop (a stop with either a rail station or intersection of 2 or more major bus routes with peak service frequency of 15 minutes or less). For the LA Affordable Housing Study study, a ½ mile walkshed was used in lieu of a ½ mile radius.

ITE Trip Generation Manual, 11th Edition

The 11th Edition of the ITE Trip Generation Manual provides trip generation rates for affordable housing units in addition to trip generation rates for market-rate units.

Table 3 summarizes ITE Trip Generation rates for market-rate multi-family and affordable multi-family housing. Multi-family (Low-rise) was selected for comparison since it is the most common type of multi-family units in the unincorporated area.

The ITE definition for Multi-family (Low-rise) is

“Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have two or three floors (levels).”

The ITE definition for Affordable housing is:

“Affordable housing includes all multifamily housing that is rented at below market-rate to households that include at least one employed member. Eligibility to live in affordable housing can be a function of limited household income and resident age.”

ITE provides trip generation for various land use contexts and proximity to transit definitions as follows²:

- *“Not Close to Rail Transit”/“Close to Rail Transit – A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station is ½ mile or less.*
- *Center City Core – the downtown area for a major metropolitan region at the focal point of regional light- or heavy-rail transit system.*
- *Dense Multi-Use Urban – a fully developed area (or nearly so), with diverse and interacting complementary land uses, good pedestrian connectivity, and convenient and frequent transit.*
- *General Urban/Suburban – an area associated with almost homogeneous vehicle-centered access. Nearly all person trips that enter or exit a development site are by personal passenger or commercial vehicle.*
- *Rural – agricultural or undeveloped except for scattered parcels and at very low densities.*

The “Not Close to Rail Transit” category and “General Urban/Suburban” land use is most comparable to the unincorporated County for present conditions, as well as under the scenario

² Definitions from ITE Trip Generation, 11th Edition: Desk Reference, Chapter 4, Definition of Terms.

that transit options are enhanced in the more urbanized unincorporated communities as envisioned under regional planning efforts. All trip generation rates were selected for the 'Weekday' trip period, 'General Urban/Suburban' setting/location, and 'Not Close to Rail Transit' Land use subcategory.

Table 3: ITE Trip Generation 11th Edition Affordable and Market-Rate Multi-Family Trip Generation Rates

Land Use Category	Trip Generation Rate Per Dwelling Unit		
	Daily Rate	AM Peak Hour Rate	PM Peak Hour Rate
Multi-Family (Low Rise) Not Close to Rail Transit Category 220	6.74 (22 studies)	0.40 (49 studies)	0.51 (59 studies)
Affordable Housing Category 223	4.81 (5 studies)	0.36 (6 studies)	0.46 (8 studies)

Source: ITE Trip Generation 11th Edition

As shown in Table 3, the affordable housing trip generation rate is less than the standard multi-family (low rise) rate. The affordable housing daily trip generation rate is approximately 30% lower than the market-rate multi-family (Low-rise) rate.

San Diego County Affordable Housing Data Collection

Fehr & Peers conducted a trip generation study for three existing affordable housing developments in the unincorporated areas of San Diego County.

ITE provides guidance on conducting trip generation studies in the *Trip Generation Handbook* (2017). The sites that were selected meet the criteria contained in the Trip Generation Handbook. The following considerations were taken in selecting sites for this study: there is a known number of units, the sites are isolated such that counts of the driveways accurately show trips in and out of the community, and there is not on-street parking that would be missed during the study.

Video vehicle trip counts were conducted between October 27th and 29th (Tuesday, Wednesday, and Thursday). The following sites were selected based on their makeup of affordable units, location, access to complex, and size:

1. Fallbrook View: An 80-unit, 99% affordable housing development in central Fallbrook. Features one access driveway and no on-street parking.

2. San Martin De Porres: A 116-unit, 9% affordable housing development in Spring Valley. Features one access driveway and no on-street parking.
3. Spring Villa Apartments: A 136-unit, 100% affordable housing development in Spring Valley. Features one access driveway and no on-street parking.

Attached Figure 1 shows the count locations in unincorporated San Diego County and the placement of the counting equipment. All three locations fit the description of low-rise multi-family residential developments situated in general urban/suburban contexts. **Table 4** shows average daily, AM peak, and PM peak trip generation rates for the three San Diego County locations.

Table 4: San Diego County Affordable Housing Trip Generation Study Results

Location	Trip Generation Rate Per Dwelling Unit		
	Daily Rate	AM Peak Hour Rate	PM Peak Hour Rate
Fallbrook View	5.68	0.49	0.88
San Martin De Porres	4.74	0.55	0.45
Spring Villa Apartments	3.29	0.33	0.36
Average	4.57	0.46	0.56

Source: Fehr & Peers, 2021

As shown, the studied affordable housing sites in San Diego County have lower trip generation rates than ITE market-rate low-rise apartments. The data collected in unincorporated San Diego County is also very similar to the trip generation rates from the other data sources. Also, the two locations in Spring Valley have a lower trip generation rate than the location in Fallbrook. This may be because Spring Valley is located closer to incorporated cities than Fallbrook.

Data Summary

Table 5 provides a comprehensive comparison of daily trip generation rates across the various data sources. Daily trip generation is the focus of this comparison because the VMT metrics for SB 743 purposes are reported on a daily basis.

$$\text{VMT} = \text{Daily Trips Generated} \times \text{Average Length of Vehicle Trips}$$

Therefore, when comparing a projects that have similar average trip length, the project with lower daily trips generated will result in lower VMT.

Table 5: Affordable Housing Daily Trip Generation Study Comparison

Data Source	Trip Generation Rate Per Dwelling Unit	
	Daily Rate (% Lower Than ITE Multi-Family Low-rise)	% Lower Than ITE Multi-Family Low-rise
ITE Multi-Family (Low Rise) Not Close to Rail Transit Category 220	6.74	NA
ITE Affordable Housing Category 223	4.81	-29%
Clifton et al Report	NA	NA
Los Angeles Study All Affordable Housing Categories (Outside TPA)	2.48	-63%
Los Angeles Study All Family Housing Categories (Outside TPA)	4.15	-38%
Fallbrook View	5.68	-16%
San Martin De Porres	4.74	-30%
Spring Villa Apartments	3.29	-51%
San Diego County Affordable Housing Average	4.57	-32%

Notes: The percentages represent the percent below multi-family (low rise) ITE Trip Generation Rates.

Source: Fehr & Peers, 2021

Review of the data suggests that the ITE Trip Generation rates for Affordable Housing reasonably represent the data collected for the developments in unincorporated San Diego County. Therefore, the ITE Trip Generation rates can be used to generally represent 100% affordable housing projects in the County.

Affordable Housing VMT Screening Options

The daily trip generation rates from the ITE Trip Generation Manual for market-rate multi-family (low-rise) housing and affordable housing were used to develop a ratio of affordable housing that would continue to generate less trips than a market-rate multi-family housing project. This approach was used to expand the screening beyond 100% affordable projects. As described above, the simple definition of VMT is average trip length multiplied by average number of trips. Trip generation represents the average number of trips, and this is the portion of the equation that is the focus of this memorandum and analysis.

The following assumptions and variables are used in the analysis presented herein:

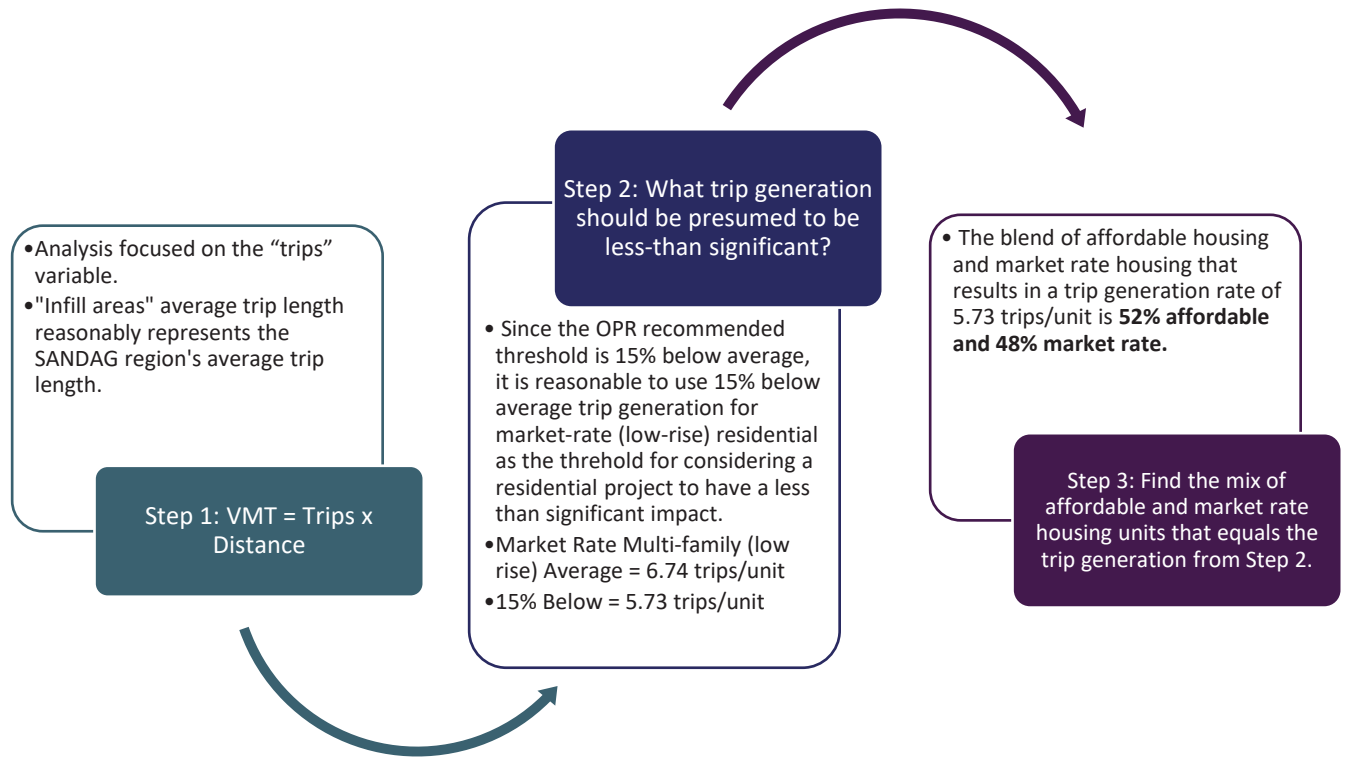
1. VMT = average trip length x average trips
2. Trip Generation represents “average trips”.
3. Average trip length is primarily based on the location of a project, such that all projects located near one another will have similar average trip lengths.
4. To “screen” a project from performing VMT analysis we are presuming that the project has a less-than-significant transportation VMT impact.
5. For residential projects to have a less than significant VMT impact, the analysis in this memorandum uses a threshold of 15 percent below the regional average VMT rate.
6. Since the focus variable is “average trips” it is important to make sure that the “average trip length” is representative of the SANDAG regional average trip length. For example, a residential project that has an average trip generation of 4 daily trips per unit and an average trip length of 5 miles would generate 20 VMT per unit. If a neighboring project has an average trip generation of 8 daily trips, but still an average trip length of 5 miles (since they are in the same location), it will generate 40 VMT per unit. Now consider a project that is in a completely different location that has an average trip length of 10 miles but still has an average daily trip generation of 4 trips per unit. The resulting VMT/unit is 40 VMT.
7. The purpose of this analysis is to demonstrate that because affordable housing generates less trips than market-rate housing it should be presumed to have lower VMT. This statement is only true if the affordable housing and market-rate housing have similar average trip lengths.
8. We determined that the “infill areas”³ have an average VMT/capita that is consistent with the average regional VMT/capita. For purposes of this analysis, we confirmed that all infill areas fall within -15% to +25% of average (which captures the two ranges that contain “average”) as displayed on the standard VMT/capita map. The VMT/Capita map shows VMT/capita in ranges of
 - More than -15% below average
 - -15% to average
 - Average to +25%
 - Greater than 25% of average.

Attached Figure 2 shows the “infill areas” overlaid on the SANDAG regional average VMT/Capita map. Since trips generated by a land use is largely based on average trip generation rates applied consistently throughout the region, the variation in VMT

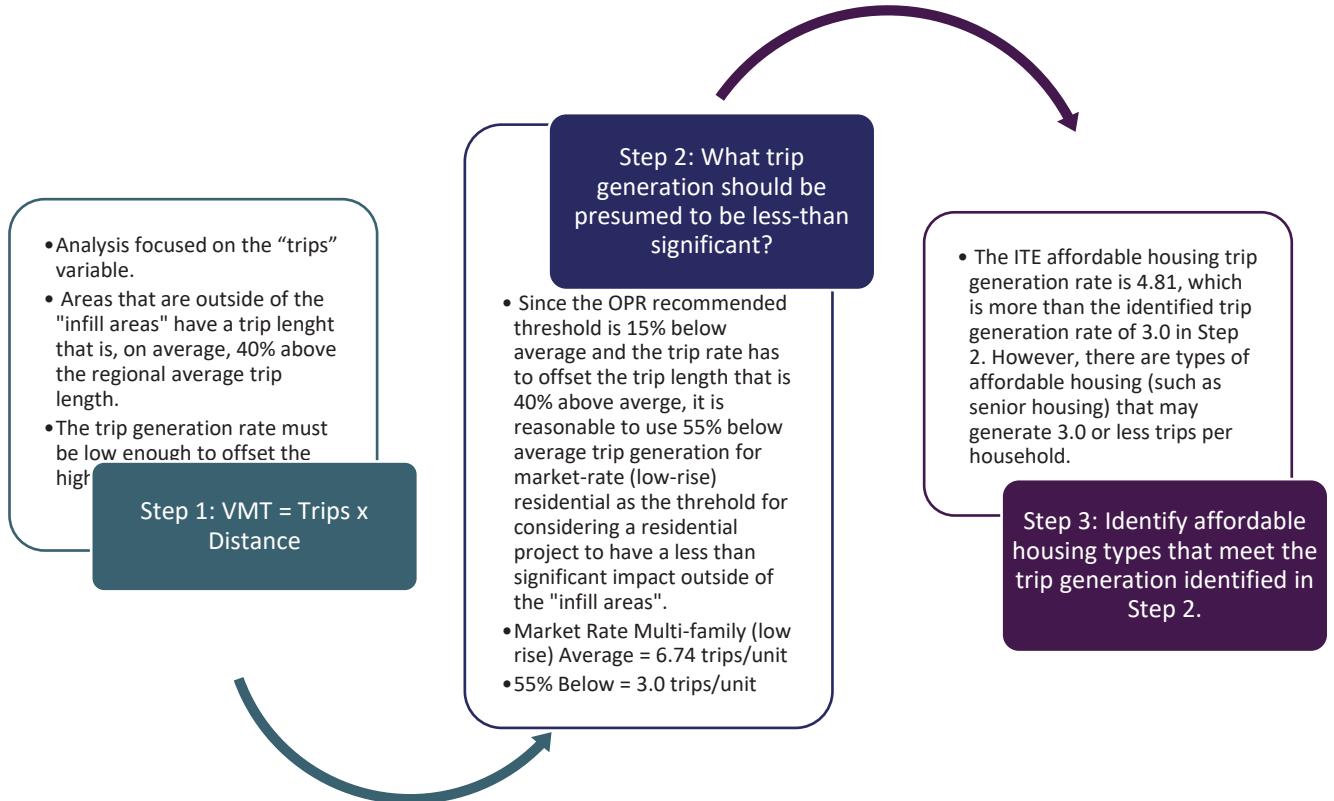
³ “Infill areas” are defined in the “Infill Areas in Unincorporated San Diego County, Fehr & Peers, October 29, 2021

- displayed on the map is due to differences in average trip length. Therefore, it is appropriate to assume that if a project is within the average VMT/capita range, it reasonably represents the average trip length within the region. Since the “infill areas” fall within the average range, residential units within these areas are expected to have trip lengths that are consistent with the regional average trip length.
9. The portion of the unincorporated county outside of the “infill areas” can be considered to have an average trip length that is greater than 25% above the regional average trip length. For purposes of the analysis, we assumed that most developable locations in the unincorporated county have trip lengths that are 40% above the regional average. This was selected to estimate the midpoint of the range of values 25%-50% above average, rounding up to 40%.

Using the variables and assumptions documented above, the following procedure was used to determine the mix of affordable housing that would result in a trip generation that could meet the threshold of 15% below average for the “infill areas” and other parts of the unincorporated county. The calculations are provided in **Attachment A**.

Procedure for “infill areas”:

Based on the analysis, a project that is located in an “infill area” that is at least 52% affordable will result in a “blended” market-rate/affordable trip generation rate that is 15% below a typical market-rate multi-family development daily trip generation.

Procedure for “other areas”:

Based on the analysis, standard affordable housing projects do not have a trip generation rate that is low enough to automatically be presumed to generate VMT at a rate considered less than significant. However, certain types of affordable housing, such as senior affordable housing do have trip generation rates that are low enough to presume less than significant VMT. An option is to allow individual projects to demonstrate that they can achieve a combined average trip length and average trips that can meet a 15% below regional average VMT.

Options for Consideration

Based on the results of this research, the following options could be considered by the Board of Supervisors:

1. Rely on the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) screening language (page 14-15) and require each affordable housing project to provide substantial evidence for why the screening applies to them. This would most commonly result in 100% affordable housing in infill locations being screened.⁴
2. Allow projects that have at least 52% affordable housing in “infill areas” to be screened based on the evidence prepared for this study. However, do not allow affordable housing to be screened outside “infill areas” (because the OPR Technical Advisory specifies “infill”). Note that trip generation rates are known to fluctuate by +/- 10% when comparing different days of the week; therefore, for simplicity and to reference a “round number”, it would be appropriate to allow projects that are at least 50% affordable in “infill areas” to be screened.
3. Allow projects that have at least 52% affordable housing in “infill areas” to be screened and affordable projects that are outside infill areas to be screened if they can demonstrate a blend of trip generation and trip length that can achieve 15% below average. As shown in this memorandum an affordable project with a trip generation rate that is 3.0 trips per unit or fewer would generally be presumed to have a less than significant VMT impact.

⁴ The OPR Technical Advisory indicates that: “Evidence supports a presumption of less than significant impact for a 100 percent affordable residential development (or the residential component of a mixed-use development) in infill locations. Lead agencies may develop their own presumption of less than significant impact for residential projects (or residential portions of mixed-use projects) containing a particular amount of affordable housing, based on local circumstances and evidence. Furthermore, a project which includes any affordable residential units may factor the effect of the affordability on VMT into the assessment of VMT generated by those units.” (Page 15)

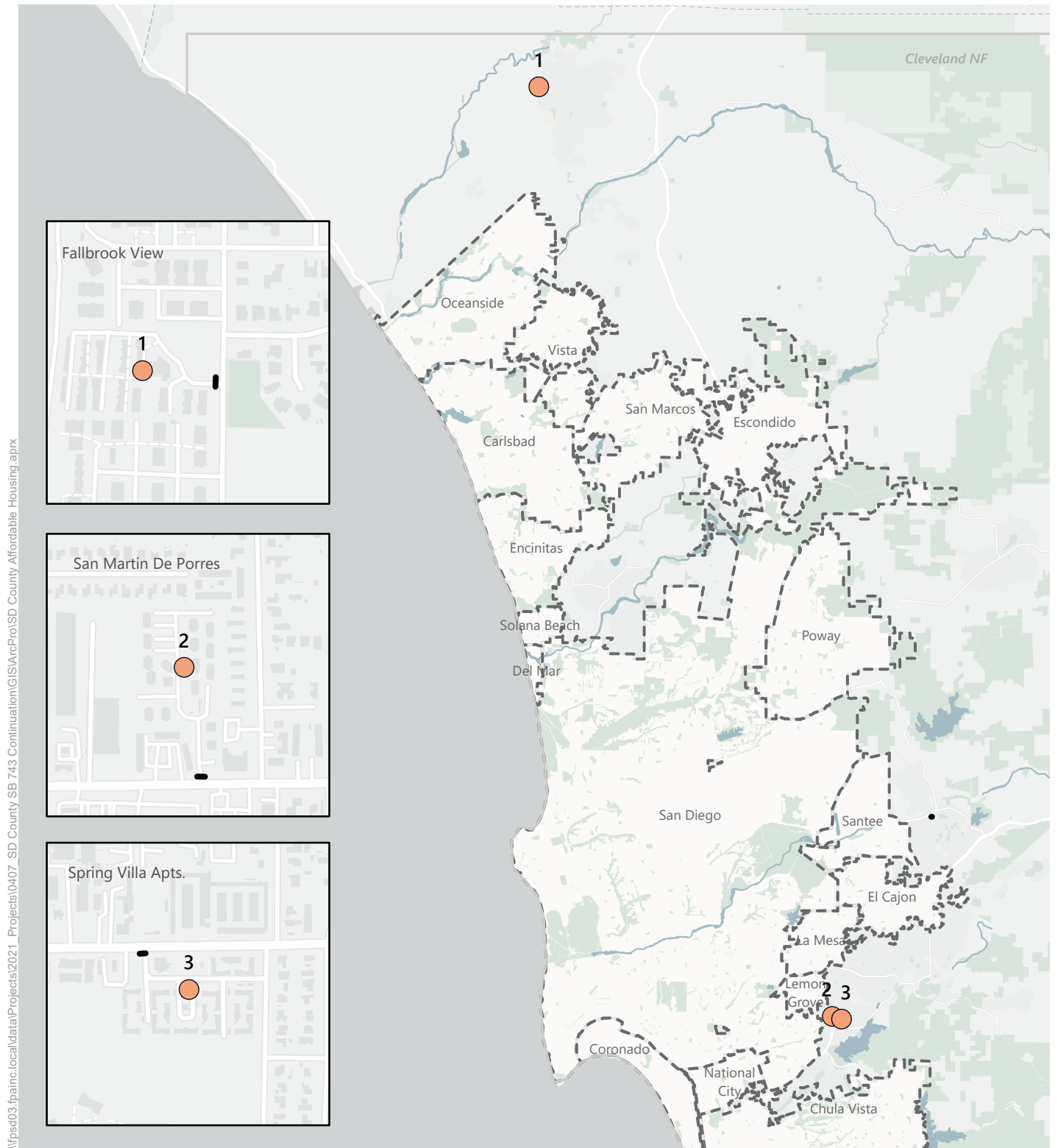
References

Clifton, K. J., Currans, K. M., Schneider, R., & Handy, S. (2018). *Affordable Housing Trip Generation Strategies and Rates* (Technical Report No. CA18-2465; p. 170). California Department of Transportation. <https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/final-reports/ca18-2465-finalreport-a11y.pdf>

Gaul, T., & Bearn, C. (2017, April 17). *Infill and Complete Streets Study* [Memorandum].

OPR Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018)

Trip Generation Manual, 11th Edition. (2021). Institute of Transportation Engineers.







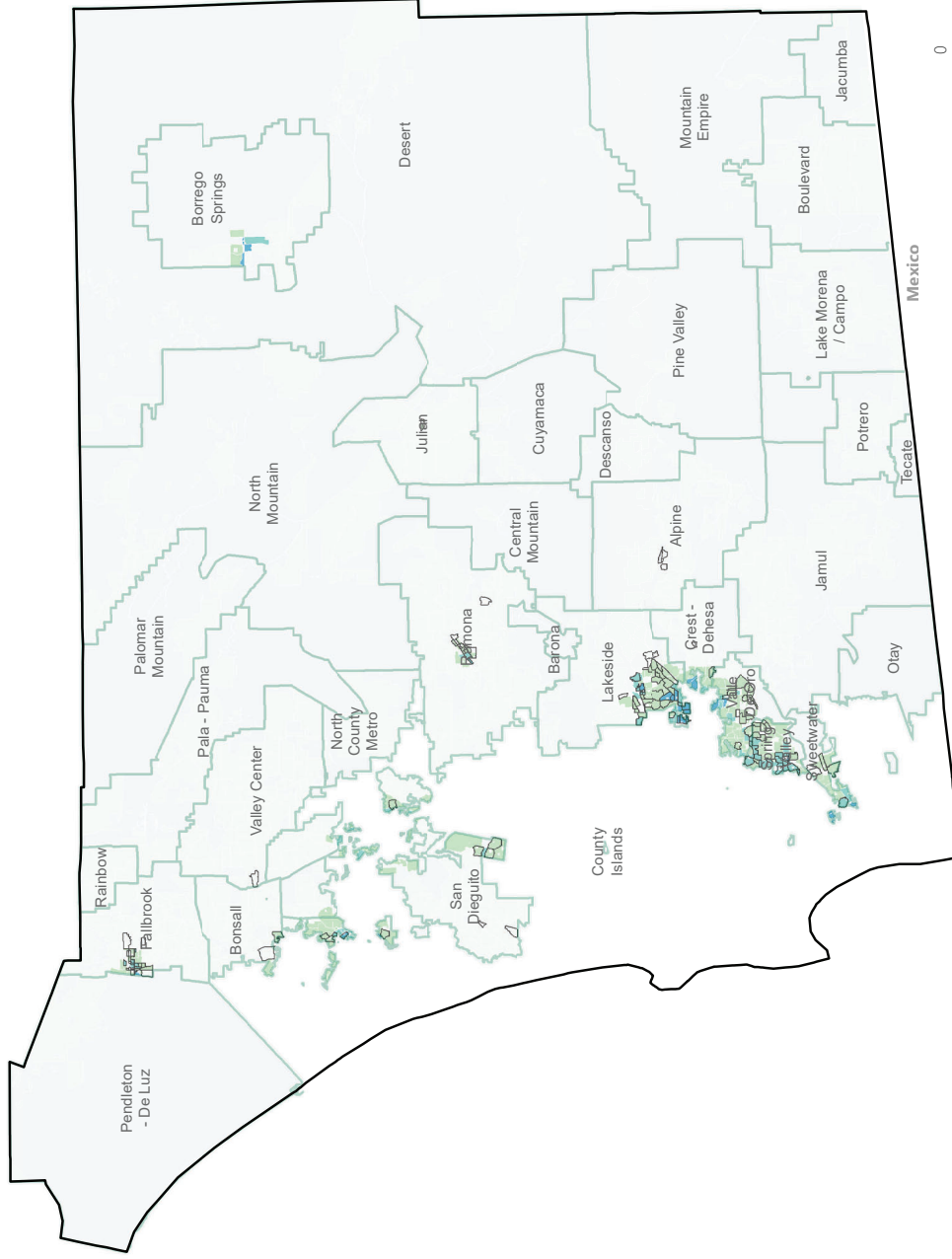
-  Study Locations
-  Count Location
-  County Boundaries
-  Cities



Figure 1: Affordable Housing Trip Generation Study Locations in San Diego County



Draft



Legend

-  SANDAG Region
-  Community Plan Area

Unincorporated County TAZs which meet "Infill Area" definition in "Infill Development in San Diego County" Technical Memorandum (Fehr & Peers, October 2021)

-  VMT Less than 85% regional average
-  VMT between 85% and 100% regional average
-  VMT between 100% and 125% regional average
-  VMT above 125% regional average

Figure 2: VMT Per Capita and Infill Opportunity Areas

*Based on the SANDAG Series 13 Base Year Model



Attachment A

Affordable Housing and SB 743 - Screening Considerations

Summary of Affordable Housing Daily Trip Generation	Daily Trip Generation Rate	% Lower Than ITE Low Rise Multi-Fam Rate
Data Source		
SANDAG Not So Brief Guide Multi-Family	6	NA
ITE Low Rise Multi-family Housing (11th Ed)	6.74	NA
ITE Affordable Housing (11th Ed)	4.81	-29%
F&P LA Affordable Housing Study for 100% Affordable Family Units	4.16	-38%
Fallbrook View (100% Affordable, 80 units, Fallbrook) A1	5.68	-16%
San Martin De Porres (9% Affordable, 116 units, Spring Valley)	4.74	-30%
Spring Villa Apts (100% Affordable, 136 units, Spring Valley)	3.29	-51%
Average of County of San Diego Trip Generation	4.57	-32%

Screening Calculations (see notes for additional details)			
Infill Area Locations (as defined in the October Infill Areas in Unincorporated San Diego County Technical Memorandum)	trip gen target (15% below average multi-family ITE trip gen rate):	5.73	Based on 6.74*(1-.15)
	100% affordable multi-fam average trip gen rate	4.81	
	Standard multi-fam average trip gen rate	6.74	
	What blend of affordable and standard equal 5.73?	47.6%	non affordable
		52.4%	affordable
Other Areas (rural, non-infill Village)	trip gen target (55% below average multi-family ITE trip gen rate to offset longer trip lengths):	3.03	Based on 6.74*(1-.55)
	100% affordable multi-fam aver	5.68	Above 3.03, typically affordable housing would not automatically be screened; however many types of affordable housing such as senior affordable housing would generate less than 3.0 daily trips.

Note 1: Based on the San Diego data collected, it confirms that the ITE national rates for suburban (not near transit) affordable housing reasonably represent affordable housing in the County. This is true in the "infill" locations.

Note 2: Since 100% affordable housing can be screened because it is presumed to generate less vehicle trips than typical multi-family housing, it seems appropriate to establish a relationship that can be used to figure out the percentage of affordable units that would still result in less VMT than market-rate. Since the starting point is the average trip generation rate for multi-family units, and we are going to focus on the number of trips aspect of the VMT equation (trips * distance), it is reasonable to set a trip generation target that is 15% below the average to be able to be consistent with the VMT threshold of 15% below average.