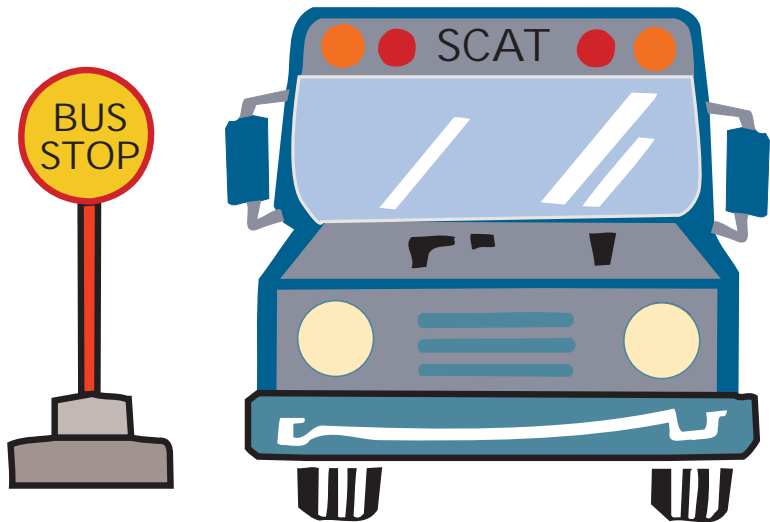


*Section 1 -*  
**VMT Reduction  
Executive Summary**



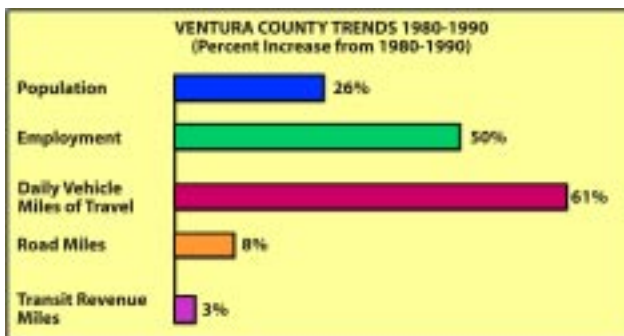


# VMT Reduction Executive Summary

The VCOG Urban Form/Vehicle Miles Traveled (VMT) Reduction Program will assist decision-makers in defining the concept, identifying the factors affecting VMT reduction, and propose strategies and implementation measures that seek to address the issue. The program will also discuss the linkages between land use and transportation, and related factors such as traffic congestion, air quality, energy conservation and the conversion of open space/ farmland to urban uses.

## BACKGROUND

### POPULATION & VEHICLE USE TRENDS



Source: Ventura County Congestion Management Program.

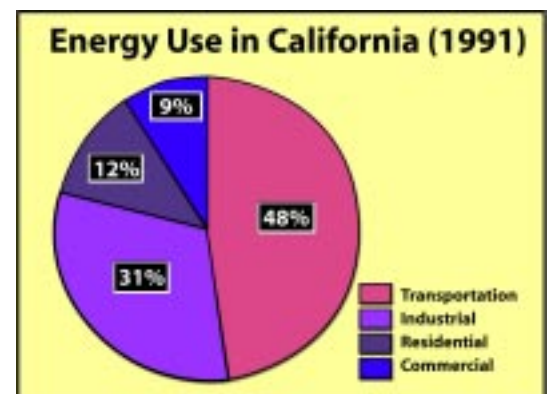
Ventura County’s population is projected to increase from about 669,000 in 1990 to more than 870,000 people by the year 2010.<sup>1</sup>

VMT in Ventura County has steadily increased over the years at a faster rate than the region’s population growth (the County’s population grew by 26% from 1980 to 1990 while the daily VMT increased by 61% during the same period.)<sup>2</sup>

California and Ventura County residents are driving more, making longer trips and driving alone more frequently. Vehicle occupancy has decreased almost 20% since 1977 and if current trends continue, one-half of all vehicle trips will occur under congested conditions by the year 2010.<sup>3</sup>

## ENERGY USAGE

Driving in congested traffic conditions makes cars less efficient and results in more pollution. Transportation is responsible for 48% of California’s total energy consumption, and personal vehicles account for over half of all transportation energy use. Since 1973, transportation is California’s only energy use sector in which consumption continues to grow.<sup>4</sup>

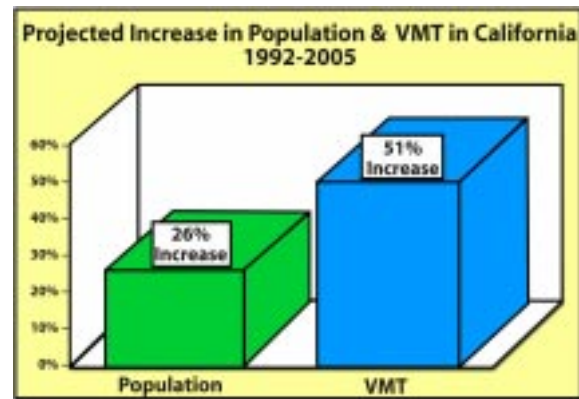


Source: Energy Aware Planning Guide, California Energy Commission

## AIR QUALITY

The amount of ozone in Ventura County’s air exceeds the State and National health standards frequently enough for the County to be classified as a “severe non-attainment area” for ozone. Motor vehicles are the major source of air pollution in the County. Although today’s new cars are cleaner and stringent

control measures have reduced industrial pollution, the County and the State still fail to meet air quality standards. Technical advances have been offset by increased vehicle travel over the last 20 years, as total VMT in California increased twice as fast as the rate of population growth.<sup>5</sup>



Source: *The Land Use-Air Quality Linkage*, California Air Resources Board

## REDUCING VEHICLE TRIPS

Reducing the number of vehicle trips is the most significant way of conserving energy and lowering air emissions because large amounts of pollutants are emitted each time a cold engine is started and when the vehicle is turned off. Home to work trips comprise 20% to 30% of all personal vehicle trips, and they are especially significant because they tend to be longer trips, and they also occur during peak times of traffic congestion.

## PURPOSE OF STUDY (GOALS)

- To identify strategies and implementation measures that will reduce VMT, vehicle trips (VT) and vehicle trip length.
- To identify strategies for improving transportation system efficiency, community vitality, economic viability and air quality through alternative land use and infrastructure planning.
- To generate land use, transportation and legislative measures that provide the opportunity for each person living within a geographic area to also work and obtain services in the area.
- To provide local government jurisdictions (incorporated cities, VCTC, APCD, etc.), with a suggested framework for evaluating the effectiveness of alternative VMT reduction strategies.
- To provide the VCOG Governing Board with alternative “levels of commitment” to the VMT Reduction Program.

## DISCUSSION

Current general plans and implementation ordinances that influence urban form and transportation systems in Ventura County were, in many cases, prepared at a time when reducing VMT was not a fundamental concern and explicit purpose of these plans. Because some existing urban development policies and ordinances may not be consistent or compatible with the goal of reducing trips, they may inadvertently contribute to public, institutional and governmental costs. These costs include increased transportation system congestion (including a deterioration of the levels of service [LOS]), increased air pollution, reduced worker productivity and the inefficient use of non-renewable energy resources.

## WHAT THE PROGRAM WILL AND WILL NOT ACCOMPLISH

Although the program is intended to accomplish numerous goals, there are some limitations on the project due to funding, time constraints and other considerations.

### **The program will achieve the following work objectives:**

1. Provides VCOG's subregional input to the SCAG Regional Comprehensive Plan (RCP).
2. Fulfills VCOG's contractual obligations to SCAG by completing the "Urban Form/VMT Reduction Program" (Task #5), of the VCOG/ SCAG 1994/95 Work Program.
3. Serves as a source of background and technical information on urban form/VMT reduction issues to VCOG and the subregion's member jurisdictions.
4. Although the study's primary audience will be VCOG, local decision-makers and public officials, it could also be of interest to other groups, such as agricultural advocates, lending institutions, the building industry and major employers.
5. The program will function as an information, resource and planning document. The final work products presented to VCOG are recommendations.
6. Presents alternative strategies and implementation measures for consideration by VCOG and the subregion's member jurisdictions.
7. Provides an information base for formulating and evaluating the effectiveness of alternative strategies and measures by:
  - a. Serving as a guide for the potential amendment of the existing Guidelines for Orderly Development, general plans, zoning ordinances, etc., and providing the basis for the review of other plans and ordinances.
  - b. Establishing "effectiveness criteria" which will enable decision-makers to evaluate the merits/shortcomings of future urban development requests, based on urban form and traffic generation considerations.

### **The program will not do the following:**

8. Although the Program encourages and recommends follow-up actions, it does not require any jurisdiction to adopt any of the recommended principles/strategies and implementation measures or to utilize the study's criteria in the review and evaluation of existing city/county plans and programs.
9. Although the program will identify planning concepts and case studies, it does not include draft ordinances, specific plan amendments or design guidelines that could serve as models for modifications to plans and ordinances.

## EXTERNAL FACTORS

As noted above, the program's primary purpose is to reduce VMT, VT and vehicle trip length through the implementation of land use and transporta-

tion planning measures. Although this purpose has merit, several political, economic and social factors may affect a jurisdiction's ability or willingness to effectively implement these measures.

- 1. Fiscal and exclusionary Zoning** – “Fiscal zoning” seeks to zone land predominantly for high-revenue generating and low-services demanding land uses. Over the long term, fiscal zoning will result in a jobs/housing imbalance within the community which further increases VMT.
- 2. Residential growth control ordinances (initiatives)<sup>6</sup>** – These ordinances may place moratoria or restrictions on land use permits thus halting or capping new housing construction.
- 3. Reluctant Lending institutions** – Lending institutions may be reluctant to loan money on innovative urban development projects that feature the integration of job and service producing land uses and residential land use.
- 4. Worker earnings/housing cost mismatches** – Mismatches may result when lower salaried clerical and service workers are unable to afford higher priced housing that is located near employment generators.
- 5. Multiple wage-earner households** – These households may wish to live in a location between their respective workplaces.
- 6. Job turnover** – Turnover is more likely in today's economy and individuals that switch jobs may have to commute longer distances if they elect to remain in their present housing.
- 7. Workers will assign a high value to living near their worksites<sup>7</sup>** – The program assumes that close proximity of jobsite/residence is generally valued by most persons. However, other factors could be more highly valued.

The above jobs/housing factors are discussed more thoroughly under *Jobs/Housing Balance Analysis (Section 3, pages 1 and 2)*.

## VMT REDUCTION

This document sets forth background information, general options and a compilation of planning concepts. The program also presents planning principles, strategies and implementation measures in a format that will allow a jurisdiction the greatest degree of flexibility in achieving long range planning goals and program objectives.

The three components presented below are intended to set the stage for more specific follow-up actions by individual jurisdictions.

- 1. General Principles (e.g., VCOG Planning Principles)**
- 2. Conceptual Strategies**
- 3. Conceptual Implementation Measures**

The “Principles” discussion includes an abbreviated listing of suggested “VCOG Principles of Planning” and the “Strategies” and “Implementation Measures” discussions have been summarized (Note: Principles, Strategies and Implementation Measures are described in more detail in Sections 4, 5 and 6 of this document).

## VCOG PRINCIPLES OF PLANNING

The Principles consist of “Regional” and “Community” oriented principles. The Principles were derived from several sources including the “Ahwahnee Principles”, Ventura County APCD and VCTC reports and the 1992 Agricultural Land Trust Advisory Committee’s (ALTAC) report–back to the Board of Supervisors. The Principles are described in greater detail in Section 4 (*VMT Reduction Principles of Planning*).

### **Regional Principles (examples)**

1. More compact urban forms would be achieved by minimizing “step–out” development.
2. The conversion of agricultural/open space lands to urban land uses should be minimized and more open space/agricultural buffers should be created between cities.
3. Non–renewable energy resources should be utilized more efficiently.
4. The levels of service (LOS) should be improved on County transportation corridors and at key interchanges and intersections.

### **Community Principles (examples)**

5. Compact urban forms should be emphasized thus promoting a greater sense of “community”.
6. Compact urban forms should be encouraged that feature pedestrian–friendly, “human scale” urban development patterns.
7. A community should contain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within its boundaries.
8. Community size should be designed so that housing, jobs, daily needs and other activities are within easy walking distance of each other.
9. The community should have a center focus that combines commercial, civic, cultural and recreational uses.

## PROGRAM STRATEGIES

Program Strategies (Land Use, Transportation and Legislative), represent a more generalized level of commitment to alternative VMT Reduction scenarios (the Strategies are described in greater detail under “Strategies” [Section 5]). Subsequent to endorsing the strategies, a jurisdiction may elect to pursue a more detailed set of actions (see *Implementation Measures*).

- 1. Urban Form/Land Use Strategies** will encourage more pedestrian–friendly, cohesive and human–scale development within transportation centers and corridors. Strategy options could include balanced development, pedestrian oriented development (POD), transit oriented development (TOD), mixed–use development, housing diversity, higher density development, infill development, neighborhood centers and shops/services at worksites
- 2. Transportation Strategies** will improve air quality, utilize non–renewable energy resources more efficiently by reducing the dependency on single–occupant vehicles, encourage the use of non–motorized modes of transportation and promote greater efficiencies in the movement of

people and goods. Strategy options could include road system design (e.g., connected streets/pathways), parking management, parking pricing and non-motorized forms of transportation (e.g., bicycle travel).

**3. Legislative Strategies** could include, but not be limited to the following options: reexamine existing residential growth management ordinances/policies, implement VMT Reduction related State enabling legislation (e.g., Transit Village Development Planning Act), examine the current income tax/sales tax structure, develop enterprise zones, enact air quality offset credits and pursue market-based strategies.

## IMPLEMENTATION MEASURES

Implementation Measures consist of specific action programs that are designed to carry out the intent of the Program Strategies (Land Use and Transportation). Although potential Legislative Measures have been summarized below (3), this Report has not developed implementation programs based on the Strategies. Because many of the Legislative Strategies would require implementation by other levels of government (e.g., State Legislature), it was felt that VCOG, and member jurisdictions, could endorse, or reject, some or all of the Legislative Strategies. Jurisdictions that conceptually endorsed one, or more to the Legislative Strategies, could then develop follow-up programs (Implementation Measures), based on the general strategies. The Land Use and Transportation measures are described in greater detail under “Implementation Measures” (Section 6).

**1. Urban Form/Land Use Measures** such as balanced development, pedestrian oriented development (POD), transit oriented development (TOD), mixed-use development, jobs/housing diversity, higher density/intensity development, infill development, neighborhood centers, and shops/services at worksites and transit centers.

**2. Transportation Measures** could include measures such as connected streets and bikepaths that provide more direct and safe routes, parking demand policies and programs (e.g., parking management and parking pricing) and improvements to non-motorized forms of transportation such as bicycle travel.

**3. Legislative Measures** could include, but not be limited to, the review of existing residential growth management ordinances, examining the feasibility of enacting enterprise zones that could offer incentives to businesses willing to locate in areas with low jobs-to-housing ratios, pursuing possible revenues or grants from the State if “balanced development objectives” are met, enacting air quality offset credits for businesses that locate in “jobs-poor” areas and basing motor vehicle registration fees on annual mileage driven or the amount of vehicle produced pollution.

## VMT REDUCTION WORK TASKS/ PRODUCTS

The Planning Division has prepared individual reports (sections) consisting of this Executive Summary, Variables Affecting VMT Reduction, Jobs/Housing Balance Analysis, VCOG Principles of Planning, VMT Reduction Strategies and

VMT Reduction Implementation Measures. These work products are in response to the following work tasks:

**Work Tasks**

1. Define major program issues and identify opportunities and constraints to the implementation of VMT reduction strategies.
2. Establish a methodology, standards and criteria that provide the basis for identifying and evaluating alternative VMT reduction strategies.
3. Identify alternative VMT reduction scenarios and strategies consistent with the program’s stated goals.
4. Identify alternative VMT reduction implementation measures that are consistent with the above strategies.
5. Evaluate the effectiveness of the alternatives in achieving VMT reduction.

**Work Products**

1. Variables affecting VMT/VT and data needs.
2. Inventory of alternative VMT reduction principles/strategies and implementation measures.
3. Analysis of the measures in terms of their:
  - a. Effectiveness in reducing VMT
  - b. Political acceptability
  - c. Implementation constraints/opportunities
  - d. Need for monitoring to test ongoing effectiveness
4. Guidelines to assist jurisdictions in evaluating future land use and transportation measures in terms of their potential impact on vehicle miles traveled, vehicle trip length and vehicle trip generation.
5. Final recommendations on VMT reduction strategies and implementation measures. Suggestions for integrating VMT reduction measures into existing land use and transportation plans, ordinances and other implementation programs.

**SOURCES**

1. VCOG, 1993, p. 1.a.7
2. Ventura County Transportation Commission (VCTC), 1993, p. 1-1
3. Local Government Commission, 1992, pp. 7 & 8
4. California Energy Commission (CEC), Hanson, 1993, Section IV, Part C
5. California Air Resources Board, 1994, p. 1
6. Residential growth control ordinances/initiatives in Ventura County are partially linked to air quality considerations.
7. Additional research and analysis of this issue should be undertaken as part of Phase II (Implementation of program). Further study could include a countywide survey of resident/motorists preferences on living near their worksites.

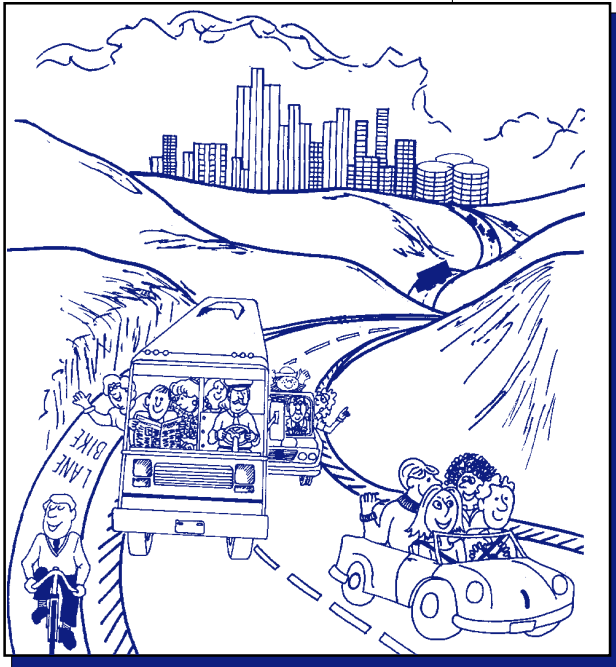
***Section 2 -***

**Variables Affecting Vehicle  
Miles Traveled (VMT) and  
Vehicle Trips (VT)**





## Variables Affecting Vehicle Miles Traveled (VMT) & Vehicle Trips (VT)



### 1986 TRAVEL BEHAVIOR SURVEY

Most of the background information, data and case study examples in this section have been derived from the San Diego Association of Government's (SANDAG) July 1991 study entitled, "*The Relationship Between Jobs/Housing Balance and Travel Patterns in the San Diego Region.*"

The study was initiated because there was inconclusive evidence regarding the benefits of pursuing jobs/housing balance and increasing transportation corridor densities within the SANDAG region. Consequently, eight variables (issues) were selected for further study, including jobs/housing balance. The 1991 study was based on SANDAG's 1986 Travel Behavior Survey, and the 1991 San Diego General Market Survey, which analyze the relationship between jobs/housing balance and commute trip length.

These surveys considered only *commute trip length* and did not measure non-commute trips that access retail services, government functions, professional/personal services and recreation/entertainment.

The 1986 Travel Behavior Survey was based on interviews with 2,700 households. These households accounted for almost 5,000 daily vehicle commute trips. The Survey defined commute trips as "trips between home and work and trips by college students between home and school". Commute trip length represented the dependent variable being explained in the analysis. The eight independent variables examined in the survey included:

1. **Jobs/Housing Balance** – Communities with excess housing, "balanced" development or excess jobs.
2. **Housing Type** – Single family or multiple family development.
3. **Workers per Household** – One, two or more.
4. **Gender** – Male, female.
5. **Persons per Household** – One, two/three or four or more.
6. **Household Income** – Less than \$20,000 (K), \$20K–\$39.9K, \$40K–\$74.9K or \$75K+.
7. **Age** – 10-19 years, 20-39 years, 40-59 years or 60+ years.
8. **Industry of Worker** – Agriculture/mining, manufacturing, transportation, retail/services, government or military.

The *Average Commute Trip Length* is shown in the following table.

<b>Average Commute Trip Length in Miles by Selected Variables, 1986 (San Diego Region)</b>			
<b>VARIABLES/ CATEGORIES</b>	<b>TRIP LENGTH (MILES)</b>	<b>VARIABLES/ CATEGORIES</b>	<b>TRIP LENGTH (MILES)</b>
<b>Jobs/Housing Balance</b>		<b>Household Income</b>	
More in balance	8.9	Less than \$20K	10.8
Excess jobs	10.0	\$20K–\$39.9K	10.4
Excess housing	12.8	\$40K–\$74.9K	11.0
		\$75K +	11.3
<b>Housing Type</b>		<b>Age</b>	
Single–family	11.4	10–19 years	9.5
Multiple family	9.5	20–39 years	10.8
<b>Workers per Household</b>		40–59 years	
One	10.9	60+ years	11.0
Two or more	10.7		8.8
<b>Gender</b>		<b>Industry of Worker</b>	
Male	11.6	Agricul., Mining	14.6
Female	9.5	Manufacturing	12.5
		Transportation	11.0
		Retail & Svcs.	9.8
<b>Persons per Household</b>		Government	
One	9.2	Military	10.1
Two, three	10.7		11.9
Four or more	11.3		

## ANALYSIS

The study shows a positive correlation (i.e., shortest commute trip), between areas “more in balance” and for persons in retail, services and government jobs. Trips from areas with excess housing are longer by about 4 miles or 45% over commute trips from areas more in balance. Longer commute trips occurred for persons living in single–family houses, for larger households and for trips where the driver is a male. Commute trip length also varied by age and industry of the worker with teenagers and those over 60 making the shortest trips relative to persons aged 20 to 59 years. Agricultural, mining and construction workers have the longest commutes followed by manufacturing workers and those in the military. Finally, trip length is only partially related to the number of workers per household and household income.

## REGRESSION ANALYSIS

A regression analysis was also completed to assess the linkage between the jobs/housing balance variable and commute trip length taking into account the other seven variables. The analysis studied 16 of the variables/categories (see page 5), and compared them to 7 “control” categories.<sup>1</sup> These categories functioned as a “benchmark” against which the other 16 variables/categories’ effectiveness in determining commute trip length was compared (see table on next page).

<b>VARIABLES (CATEGORIES)</b>	<b>ABILITY TO PREDICT TRIP LENGTH ("1" BEST — "16" NEGLIGIBLE)</b>
<b>Jobs/Housing Balance</b>	
(More in Balance)	1
(Excess Jobs)	2
<b>Industry/Worker</b>	
(Retail/Services)	3
(Agriculture/Mining)	5
(Government)	7
(Manufacturing)	12
(Transportation/Wholesale)	15
<b>Housing Type</b> (Single-Family)	4
<b>Gender</b> (Male)	6
<b>Household Income</b>	
(Less than \$20K)	13
(\$20K – \$39.9K)	8
(\$40K – \$74.9K)	14
<b>Age</b>	9
<b>Persons/Household</b>	
(One)	10
(Two, three)	16
<b>Workers/Household</b> (One)	11

The above table also shows the relationship between the commute trip length of the 16 variables/categories (i.e., reduced or increased trip lengths), compared to the "average commute trip".

## FINDINGS

Jobs/Housing Balance ("More in Balance" and "Excess Jobs"), is the best predictor of commute trip length of any variable. The third and fifth best predictors of trip length are "Retail/Services" and "Agriculture/Mining," with the former reducing trip length and the latter increasing it. Government workers also commute shorter distances and longer commute trips are made from single-family houses and by males.

Of the remaining variables, only age and workers/household are related to commute trip length. However, these variables are less important than jobs/housing balance, industry, housing type and gender. Manufacturing, transportation/wholesale, household income and persons/household have no effect on commute distance.

The analysis also shows that the greatest impact on reducing commute trip length is linked to those persons residing in "balanced communities" regardless of the other factors shown in the above table. However, although Jobs/Housing Balance is the best predictor of commute trip length, this finding is only valid in relation to the seven other variables noted on page 2-4.

## 1991 SAN DIEGO GENERAL MARKET SURVEY

The Market Survey was based on telephone interviews with 1,020 San Diego County adults during 1991. The purpose of the survey was to measure attitudes

on community issues relative to growth and to provide information for dealing effectively with those issues.

Three of the questions asked the interviewees were:

1. If you could commute less than one-half hour, would you be willing to move to a different house?
2. Why did you choose this neighborhood to live in?
3. What are the reasons you are considering moving? (for people indicating they were likely to move)

44% of the respondents answered “yes” to Question #1. The willingness to relocate was greater for females than males and declined significantly with increases in age, income and length of residence in area. The lowest level of willingness to relocate was found for persons 55 years and older.

20% of the respondents indicated that “neighborhood look” was the most important variable under “choosing a neighborhood to live in.” “Convenience to job” and “housing affordability” were the second and third most important variables.

## CONCLUSIONS

**SANDAG’s 1986 and 1991 surveys conclude that the jobs/housing balance variable is the best predictor of commute trip length of the eight variables analyzed.** The 1991 public opinion survey also shows that being closer to work is important to a significant number of people in the San Diego region. Over 40% of the long distance commuters (30+ minutes), are willing to move in order to reduce their commute time. Convenience to job was the second most popular reason for selecting a new neighborhood and this variable ranked among the top five reasons for people who are considering a move.

“Starting a new job,” or job transfer, was the most frequent answer (16%) for persons responding to the “considering moving” variable. Finding a “larger house” (12%) and “lower expenses” (11%) were the second and third most frequent responses to the considering moving variable.

Although SANDAG’s variables and commute trip analysis may not necessarily be entirely comparable to Ventura County (e.g., San Diego County’s settlement patterns are different), the two surveys provide credibility to the hypothesis that the proximity of jobs and housing can reduce commute trip length. Persons living in more balanced communities drive the shortest distances to work regardless of their income, gender, age, housing unit type, industry of worker, household size and workers per household.

## SOURCES

1. **Control Strategies: Excess Houses** (Jobs/Housing Balance), **Military** (Industry/Worker), **Multiple-Family** (Housing Type), **Female** (Gender), **\$75K+** (Household Income), **Two or More** (Workers/Household) and **Four or More** (Persons/Household).

***Section 4 -***  
**VMT Reduction**  
**Principles of Planning**





# VMT Reduction Principles of Planning

This Section sets forth Principles of Planning in a format that will allow VCOG and member jurisdictions flexibility in achieving long range planning goals and program objectives related to VMT reduction.

The Principles of Planning listed below consist of “Regional” and “Community” oriented principles (they were summarized in the Executive Summary [Section 1]). The principles were derived from several sources including, but not limited to:

1. The “Ahwahnee Principles” (described in greater detail under Implementation Measures [Section 6 – Background]);
2. California Energy Commission (CEC) reports;
3. Ventura County Air Pollution Control District (APCD) reports;
4. Ventura County Transportation Commission (VCTC) reports;
5. Ventura County Local Agency Formation Commission (LAFCO) reports; and
6. The 1992 Ventura County Agricultural Land Trust Advisory Committee’s (ALTAC) report–back to the Board of Supervisors.

## REGIONAL PRINCIPLES

1. More compact urban forms would be achieved by minimizing “step–out” development.
2. Urban services/infrastructure should be provided in an efficient and cost effective manner.
3. The conversion of agriculture/open space lands to urban land uses should be minimized and more open space/agricultural buffers should be created between cities.
4. Regions should be bounded by and provide a continuous system of greenbelt/wildlife corridors to be determined by natural conditions.
5. Regional institutions and services (government, stadiums, museums, etc.) should be located in the urban core.
6. A reduction in air emissions (e.g., CO, NOX, ROG) should be achieved.
7. Non–renewable energy resources should be utilized more efficiently.
8. The regional land use planning process should be integrated within a larger transportation network built around transit rather than freeways.
9. Comprehensive program participation should be achieved by County jurisdictions so as to reduce VMT both countywide and locally.

## COMMUNITY PRINCIPLES

10. Traffic congestion should be reduced on transportation corridors and surface streets.
11. The levels of service (LOS) should be improved on County transportation corridors and at key interchanges and intersections.
12. Compact urban forms should be emphasized thus promoting a greater sense of “community”.
13. Compact urban forms should be encouraged that feature pedestrian-friendly, “human scale” urban development patterns.
14. Improve the match between housing costs/worker earnings.
15. The efficient movement of people and goods should be improved.
16. Existing and planned transportation corridors and streets should be utilized in a more efficient and cost-effective manner.
17. A community should contain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within its boundaries.
18. As many activities as possible should be located within easy walking distance of transit stops.
19. Community size should be designed so that housing, jobs, daily needs and other activities are within easy walking distance of each other.
20. The location and character of the community should provide a range of job types for the community’s residents.
21. The location and character of the community should be consistent with a larger transit network.
22. The community should have a center focus that combines commercial, civic, cultural and recreational uses.
23. Public spaces should be designed to encourage the attention and presence of people at all hours of the day and night.
24. Streets, pedestrian paths and bike paths should contribute to a system of fully-connected and interesting routes to all destinations.

***Section 7 -***

**Vehicle Miles Traveled  
Reduction • Appendix**



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# VMT/VT Reduction Work Program

## DISCUSSION OF ISSUE

Geographic areas with imbalances between job generating and services providing land uses (i.e., commercial and industrial), and housing opportunities (i.e., residential land use), experience a deterioration of traffic conditions and increases in the number and length of work and non-work related trips. This increase in vehicle miles traveled (VMT) and vehicle trips (VT) results in a deterioration of the Levels of Service (LOS) of roads, air quality degradation, excessive energy consumption and the inefficient movement of people and goods. Ideally, bringing people's jobs, services and residences closer together would significantly address these problems.

## PROGRAM PURPOSE

The VMT Reduction Program will identify strategies for the VCOG subregion that will achieve the following goals:

**Goal 1:** To achieve vehicle miles traveled (VMT) reduction through appropriate land use, transportation and legislative measures wherein equal housing, employment and service related opportunities exist within an identified geographic area (i.e., each person living within an area would also have the opportunity to work and obtain services in the area).

**Goal 2:** To assist local government organizations and jurisdictions (e.g., VCTC, APCD, incorporated cities, etc.) in defining the VMT reduction issue and identifying alternative measures that carry out the intent of Goal #1 through amendments to general plans, the Guidelines for Orderly Development, the Air Quality Management Plan (AQMP), the Congestion Management Plan (CMP), etc.

## TASK I. DEFINE ISSUES/ IDENTIFY OPPORTUNITIES & CONSTRAINTS

- A. Establish program's goals and objectives.
- B. Identify general issues, opportunities, constraints, etc. affecting VMT reduction.
- C. Prepare detailed scope-of-work outline for review by VCOG, SCAG and County staff.
  1. Staff review document and recommend changes.
  2. Incorporate changes into final VCOG/SCAG subregional work program.
- D. Identify variables that affect VMT and VT.
  1. Identify and discuss variables and factors that affect trip generation and trip length. Variables include, but are not limited to, the following:
    - a. Jobs/Housing balance

- b. Industry type (i.e., agriculture, services, manufacturing, etc.)
- c. Housing type (i.e., single family, multiple family)
- d. Gender
- e. Age
- f. Household and worker income
- g. Workers per household
- h. Persons per household
- i. Other

2. Analyze the variables — incorporate findings into interim report.

E. Determine data needs such as establishing jobs/housing balance geographic area boundaries for 1990 and 2010.

1. Establish data needs, standards and criteria:

- a. Data needs (e.g., existing and projected VCOG population, dwelling unit, employment statistics, housing costs).
- b. Data sources (e.g., adopted VCOG projections).
- c. Threshold measures that will determine jobs/housing balance (e.g., 1.22 jobs/dwelling unit).
- d. Other

2. Identify alternative geographic areas - options include, but are not limited to:

- a. Northwest Los Angeles County and Ventura County
- b. Countywide
- c. East County/West County (divided by Conejo Grade)
- d. Regional Statistical Areas
- e. Commute-sheds
- f. Growth Areas/Non-Growth Areas
- g. Spheres of Influence
- h. Corporate city limit boundaries

3. Select geographic area(s)

- a. Solicit input from VCOG, SCAG and County staff/Incorporate comments.
- b. Establish selection criteria
- c. Select jobs/housing geographic area boundaries.

F. Identify “jobs-rich”, “housing-rich” and “balanced” geographic areas for 1990 and 2010.

1. Review data sources for appropriate information.

2. Incorporate findings into tables and interim report.

G. Provide VCOG Governing Board with update/solicit comments.

2 months (Estimated Completion Date - December 1994).

**TIME FRAME**

**WORK PRODUCT**

Scoping and Issue Papers Setting Parameters for Tasks II and III.

**TASK II- ESTABLISH  
ALTERNATIVE VMT  
REDUCTION STRATEGIES/  
SCENARIOS**

A. Identify alternative strategies used by other jurisdictions to achieve VMT reduction.

1. Research literature/conduct interviews and discussions.

2. Establish format and identify categories of strategies for jurisdictions to achieve VMT reduction that could include, but are not limited to the following options:
  - a. Land Use
  - b. Transportation
  - c. Regional Access Objectives/Standards
  - d. Legislative
  - e. Other
- B. Solicit review/comments from VCOG, SCAG and County staff on alternative strategies.
- C. Incorporate comments in draft strategies.
- D. Finalize strategies and incorporate into interim report.
- E. Provide VCOG Governing Board with update/solicit comments.

**TIME FRAME**

1 month (Estimated Completion Date - January 1995)

**WORK PRODUCT**

Issue Paper Identifying Strategies.

**TASK III - ESTABLISH  
DRAFT ALTERNATIVE  
IMPLEMENTATION MEASURES**

- A. Review literature and conduct discussions with staff from other agencies (e.g., VCTC, APCD, SCAG, etc.).
- B. Prepare alternative draft implementation measures based on strategies identified in Task II (further analysis and discussion will be provided, and implementation measures could expand upon, but are not limited to, the following issue areas):
  1. Land Use
  2. Transportation
  3. Regional Access Objectives/Standards for Work and Non-Work related trips
  4. Legislative
  5. Other

**TIME FRAME**

3 months (Estimated Completion Date - April 1995).

**WORK PRODUCT**

Issue paper identifying alternative implementation measures for achieving VMT reduction.

**TASK IV - FINALIZE STAFF  
RECOMMENDATIONS**

- A. Apply standards, criteria and other program measures, identified in Task I.E. to draft policies and programs.
- B. Analyze issues relating to:
  1. Effectiveness of alternative(s).
  2. Political acceptability.

- 3. Degree of difficulty in implementing alternative(s).
- 4. Need for monitoring to test ongoing effectiveness.
- C. Prepare draft recommendation(s).
- D. Submit draft recommendations to VCOG, SCAG and County staff for coordination/comment — incorporate comments as appropriate.
- E. Prepare final recommendations.
- F. Identify areas of further study and follow-up implementation programs (See Phase 2 below).

**TIME FRAME**

2 months (Estimated Completion Date - June 1995)

**WORK PRODUCT**

Recommended Strategy and Policy Document.

**TASK V - SUBMITTAL OF PROGRAM**

- A. Obtain VCOG Governing Board's permission to release draft program to Board of Supervisors and cities for review and comment.
- B. Present final recommendations to VCOG Governing Board for submittal to SCAG.
- C. Present recommended program to SCAG.

**TIME FRAME**

1 month (Estimated Completion Date - July 1995)

**WORK PRODUCT**

Adopted Program.

***(The following represents a Phase 2 element of the Work Program [See Task IV-F above]. It is optional and will not be funded by VCOG/SCAG after Phase 1)***

***Implementation of Program (PHASE 2)***

*I. Notify county agencies, cities, etc. of adoption of program.*

- A. Provide inventory of implementation measures included in program.
- B. Identify plans, documents, etc. that should be amended.
- C. Provide county agencies and cities with model GPA's, zoning ordinance amendments, etc. which would be consistent with VMT Reduction program.

*II. Monitoring program*

- A. Develop subregional "evaluation model (e.g., monitoring system), to evaluate effectiveness and fiscal implications of VMT Reduction implementation measures.
- B. Amend implementation measures over time, as needed, based upon findings/output from evaluation model.