

CHAPTER TEN

AIR QUALITY AND TRANSPORTATION MANAGEMENT

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CHAPTER TEN: AIR QUALITY AND TRANSPORTATION MANAGEMENT

10.1 INTRODUCTION

This chapter on air quality compliance and transportation demand management identifies policies and implementation measures to be incorporated into the community's building systems, construction practices and transportation management programs. The San Joaquin Valley Air Basin is classified as a non-attainment area for ozone. The 1993 California Clean Air Act required the San Joaquin Valley Air Pollution Control District (SJVAPCD) to develop an Air Quality Attainment Plan.

In addition to being subject to the control and approval of the County, issues of air quality and transportation management at Mountain House are subject to the regulatory control of SJVAPCD and San Joaquin Council of Governments (SJCOG)'s County Congestion Management Plan, as well as State and Federal requirements. The County Congestion Management Plan was adopted in November 1991, and the Air Quality Attainment Plan (AQAP) was adopted in January 1992. The policies and implementation measures contained in this chapter have been derived from these plans.

To avoid repetition, this chapter provides cross-references to other sections of the Master Plan that address issues affecting air quality. In particular, additional information is found in Chapter Three: Land Use Chapter Eight: Energy and Telecommunications, and Chapter Nine: Transportation and Circulation.

10.2 OVERALL ISSUES AND CROSS-REFERENCES

The primary issue affecting air quality is the impacts of transportation, especially single occupant vehicles utilized for commuting, school trips, shopping, and other daily requirements. This section presents overall issues which are addressed in more detail throughout this chapter. Table 10.1: Cross-References for Air Quality Issues, presents cross-references to provisions contained in other chapters.

Objective: To reduce air quality impacts associated with development of residential, employment, and other land uses at Mountain House.

Objective: To reduce the normally expected number of automobile trips.

Policies:

- a) Telecommuting shall be promoted in order to reduce automobile trips.
- b) Alternative transportation modes including walking, bicycling, transit, or cleaner fuels vehicles shall be supported.
- c) Vehicle miles traveled shall be reduced through community design to reduce internal trips lengths and create a jobs/housing balance to reduce external trips.
- d) Air pollution from non-automobile sources shall be reduced.

Implementation:

- a) References. Table 10.1 provides references to this and other chapters of the Master Plan that provide further implementation measures for achieving the above policies.

Table 10.1: Cross-References for Air Quality Issues	
The following is a list of provisions contained within the Master Plan which enhance air quality mitigation by reducing the use and trip lengths of single occupancy vehicles, encouraging alternative transportation modes, orienting community design to reduce vehicular traffic, and implementing a TDM program. The list also includes other air quality mitigations contained in the Master Plan that are not related to transportation.	
TDM Measures	Master Plan References
Commuter Rail Services	See Chapter Nine
Immediate Highway Access	See Chapter Nine
Regional (HOV) Facilities	See Chapter Nine
Jobs/Housing Balance	See Chapter Three
Telecommuting/Satellite Business Centers	See Chapter Eight
Land Use and Circulation Design	See Chapters Three, Four and Nine
Bicycle/Pedestrian Trails	See Chapters Seven and Nine
Location of Schools/ Neighborhood Center/ Employment/Parks	See Chapters Three, Five and Seven
Child Care	See Chapter Five
Transit Center/Intermodal Facility	See Section 10.3: Transportation Demand Management, and Chapter Nine
Park and Ride Lots	See Chapter Nine
Transit Service	See Section 10.3: Transportation Demand Management, and Chapter Nine
Maximum Level of Parking	See Chapter Nine
Parking Spaces for Carpools/ Compact/Cleaner Fuel Vehicles	See Chapter Nine and Section 10.4: Cleaner Fuels
Traffic Signal Synchronization	See Chapter Nine
Bicycle Lockers/Racks	See Chapter Nine
Showers and Lockers	See Chapter Nine
Passenger Loading Areas	See Chapter Nine
Community Transportation Management Association	See Section 10.3: Transportation Demand Management, and Chapter Nine
Transportation Coordinator	See Section 10.3
Personalized Matching Assistance (PMA)	See Section 10.3
On-Site Sale of Transit Passes/Tickets	See Section 10.3
Vanpool Program	See Section 10.3

Table 10.1 continued on next page.

Table 10.1, (Continued): Cross-References for Air Quality Issues	
The following is a list of provisions contained within the Master Plan which enhance air quality mitigation by reducing the use and trip lengths of single occupancy vehicles, encouraging alternative transportation modes, orienting community design to reduce vehicular traffic, and implementing a TDM program. The list also includes other air quality mitigations contained in the Master Plan that are not related to transportation.	
TDM Measures	Master Plan References
Five Year Update	See Section 10.3
Transit/Rideshare Information	See Section 10.3
Special Promotions	See Section 10.3
Tree Planting	See Chapters Four and Nine
Cleaner Fuels Shuttle	See Section 10.4: Cleaner Fuels
Cleaner Fuel Vehicles	See Section 10.4
CNG Fueling Station	See Section 10.4
Pre-Construction	See Section 10.5: Construction Program for Air Quality
During Construction	See Section 10.5
General Fugitive Dust	See Section 10.5
Ozone Precursors	See Section 10.5
Natural Gas Lines/Electrical Outlets	See Section 10.5
Water Heaters	See Section 10.6: Houses and Buildings
Fireplaces	See Section 10.6

10.3 TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) refers to transportation planning strategies aimed at reducing vehicular travel demand and reducing congestion. The TDM program for the Mountain House community is intended to promote the use of alternatives to the single-occupant vehicle (SOV) for peak hour trips taken within the project and elsewhere in the County, and thereby lessen congestion and improve air quality.

10.3.1 TDM Measures

Objective: To reduce the use of the single-occupant vehicle (SOV) for travel within and to and from the Mountain House community through implementation of specific trip reduction measures.

Policies:

- a) The following TDM measures shall be used to reduce automobile trips: bus and rail transit, bicycling and walking, ridesharing, and public information and education.
- b) Strategies for TDM implementation and monitoring shall comply with the San Joaquin County Congestion Management Plan. Implementation measures shall comply with the SJVAPCD Air Quality Attainment Plan.

Implementation:

- a) TDM Program and Transit Plan. A TDM Program and Transit Plan shall be prepared that will reduce the use of single-occupant vehicles.
- b) TDM Plan Requirements. The TDM plan shall lay out provisions for implementation and administration of the TDM program, including the appropriate timing for a TDM coordinator, requirements for a monitoring program, and incentives for the use of cleaner fuels. The TDM plan shall establish permanent funding mechanisms for trip-reducing programs at both the employer end and the home end and shall include provisions for trip reduction monitoring.
- c) Monitoring. The TDM Program and Transit Plan shall include a monitoring program that will function in coordination with the overall Mountain House Monitoring Program.
- d) Free Transit Service. Free transit service shall be provided to new residents of the Mountain House community for the first three months of occupancy.

10.4 CLEANER FUELS

Objective: To reduce emissions from public, fleet or private vehicles through the use of cleaner fuel vehicles.

Policies:

- a) The community shall develop and promote the use of natural gas, the cleanest of the fossil fuels.
- b) Programs to encourage the use of cleaner fuel vehicles shall be developed.

Implementation:

- a) Preferential Parking. Parking facilities throughout the community shall provide preferential parking for cleaner fuel vehicles and all school and transit vehicles as established in the TDM Program.
- b) Cleaner Fuel Vehicles. Individuals and business shall be encouraged to consider alternative fuel vehicles for personal and fleet use. Specific measures are as follows:
 - All Mountain House MHCSD owned service and maintenance vehicles and all school and transit vehicles should be cleaner fuel vehicles (i.e., CNG, methanol, or electric).
 - Long term infrastructure requirements for supporting increased numbers of alternative fuel vehicles shall be determined.
 - Golf courses will be required to utilize electric rather than gasoline powered golf carts.

10.5 CONSTRUCTION PROGRAM FOR AIR QUALITY

Construction activities are a significant contributor to air quality impacts. These impacts are directly related to dust generation, construction traffic, and equipment discharges of fumes.

Objective: To mitigate air quality impacts due to construction activities.

Policies:

- a) Generation of dust and emissions shall be controlled during the pre-construction and construction phases.
- b) Emissions from operating equipment shall be controlled.
- c) Construction equipment and traffic shall be considered in air quality control.

Implementation:

- a) Regulations for Construction. Construction practices shall comply with the provisions of the SJVAPCD.

10.6 HOUSES AND BUILDINGS

Objective: To reduce air emissions from Mountain House.

Policy:

- a) The following emissions shall be targeted for reduction:
 - Emissions resulting from routine usage of gasoline appliances such as lawn maintenance equipment and barbecues.
 - NOx emissions resulting from water heaters.
 - Emissions resulting from fireplace usage.

Implementation:

- a) Conditions of Approval. The following shall be required as conditions of Tentative Map approval:
 - Natural gas lines outlets shall be provided to backyards to encourage usage of natural gas barbecues.
 - 220 volt electrical outlets for recharging electric automobiles shall be provided in each garage. Electrical outlets shall be located on the outside of single family homes to accommodate electric lawn maintenance equipment and electric barbecues.
 - Low nitrogen oxide (NOx) emitting and/or high efficiency water heaters shall be required for all dwelling units.
 - Each single family residence shall have no more than one fireplace. If fireplaces are designed to be natural gas heating appliances of a zero clearance design, there is no limitation on the number of fireplaces per unit.

