DRAFT
MASTER ENVIRONMENTAL IMPACT REPORT

on the

City of Turlock
DRAFT NORTHWEST TRIANGLE
SPECIFIC PLAN

SCH # 94032049

Prepared for the City of Turlock by

Ellen Greenberg, AICP
Barry Miller, AICP
The Wilson Engineering Company
Donald Ballanti, Meteorological Consultant
Illingworth & Rodkin, Acoustical Consultants

TABLE OF CONTENTS

SUMMARY 1
S.1 Proposed Project 1
S.2 Project Impacts 2
S.3 Alternatives to the Project 3
S.4 Areas of Controversy 3
S.5 Issues to Be Resolved 3

1.A. PROJECT DESCRIPTION 1

1.B. ENVIRONMENTAL SETTING 2

1.C. EIR APPROACH 2

1.D. SPECIFIC PLAN OBJECTIVES 4

1.E. SUMMARY OF MAJOR CHANGES ENVISIONED BY THE DRAFT SPECIFIC PLAN: LAND USE AND POPULATION 5

1.F. PRINCIPAL PROPOSALS RELATING TO INFRASTRUCTURE AND PUBLIC SERVICES 11

1.G. PLAN PRINCIPLES RELATING TO NATURAL RESOURCES AND PUBLIC HEALTH 18

1.H. USES OF THE EIR 18

2. COMPATIBILITY OF THE PROJECT WITH RELEVANT PLANS AND PROGRAMS 19
2.A. Turlock General Plan 19
2.B. Stanislaus County General Plan 19
2.C. Stanislaus County Agricultural Element 21
2.D. Stanislaus County Congestion Management Program 23
2.E. Air Quality Attainment Programs 25

TABLE OF CONTENTS *(Continued)*

3. ENVIRONMENTAL SETTING, IMPACT ANALYSIS, AND MITIGATION 28
3.A. Impacts Found Not to Be Significant 28
3.B. Traffic and Circulation 31
3.C. Air Quality 44
3.D. Agriculture 56
3.E. Noise 69

4 DESCRIPTION AND ANALYSIS OF ALTERNATIVES 82
4.A Approach to Alternatives 82
4.B Agricultural Protection Alternative 82
4.C Residential / Heavy Commercial Emphasis Alternative 83
4.D Combination Alternative: Agricultural Protection and Land Use Changes . 85
4.E No Project Alternative 86
4.F Comparison of Alternatives and Selection of Environmentally Preferred Alternative 86

5. IMPACT OVERVIEW 89
5.A. Significant Irreversible Environmental Changes 89
5.B. Growth Inducing Impacts of the Proposed Action 89

6. MITIGATION MONITORING AND REPORTING 91
6.A Air Quality Mitigation 91
6.B Noise Mitigation: Noise and Land Use Compatibility 92

APPENDICES
Appendix A: Definitions of Use Classification
Appendix B: Air Quality Methodology and Assumptions
Appendix C: Notice of Preparation and Initial Study
Appendix D: Response to Notice of Preparation

REPORT AUTHORS

PERSONS AND ORGANIZATIONS CONSULTED IN PREPARATION OF THE EIR

LIST OF TABLES

TABLE S-1
Summary of Impacts and Mitigation 4
TABLE S-2
Comparison of alternatives with Proposed Project 11

TABLE 1-1
Summary of Additional Development Potential Commercial Uses 7
TABLE 1-2
Residential Development and Population Growth Potential 8
TABLE 1-3
Summary of Potential Employment Additions Commercial Uses 9
TABLE 1-4
Major Roadway Improvements 13

TABLE 3-1
Roadway Segments, Existing Conditions 33
TABLE 3-2
Description of Levels of Service for Signalized Intersections 34
TABLE 3-3
Description of Levels of Service for Unsignalized Intersections 35
TABLE 3-4
Existing and Cumulative Year 2010 Pm Peak Hour Levels of Service 36
TABLE 3-5
Peak Hour Signal Warrants 41
TABLE 3-6
Federal and State Ambient Air Quality Standards 45
TABLE 3-7
Air Quality Data for Stanislaus County Monitoring Sites, 1991-1993 49
TABLE 3-8
Projected Worst Case Carbon Monoxide Concentration near Selected Intersections, in Parts per Million 52
TABLE 3-9
Project Regional Emissions Impacts in Pounds per Day 53
TABLE 3-10
Extent of Agriculture in the Northwest Triangle, 1994 56

LIST OF TABLES (*Continued*)

TABLE 3-11
Typical Annual Yields per Acre for Crops Grown in the Northwest Triangle 60
TABLE 3-12
Definitions of Acoustical Terms 70
TABLE 3-13
Typical Sound Levels Measured in the Environment and Industry 71
TABLE 3-14
Maximum Allowable Noise Exposure Transportation Noise Sources 74
TABLE 3-15
Noise Level Performance Standards for Projects Affected by or Including Non-Transportation Sources 75
TABLE 3-16
10-Minute Noise Measurements November 3, 1994 (See Figure 2) 76
TABLE 3-17
Buildout Year Noise Contour Distances For Ground Transportation Sources 79

TABLE 4-1
Comparison of Alternatives with Proposed Project 87

LIST OF FIGURES

Figures **Follows Page**

Figure 1
Turlock Regional Location 1
Figure 2
Northwest Triangle Specific Plan - Location in City 1
Figure 3
Northwest Triangle Specific Plan 5
Figure 4
Roadway Network 31
Figure 5
Existing 1994 P.M. Peak Hour Traffic Volumes 32
Figure 6
Year 2010 Average Daily Traffic 41
Figure 7
Year 2010 P.M. Peak Hour Traffic Volumes 42
Figure 8
Existing Agricultural Land Uses 57
Figure 9
Turlock Land Use Compatibility Guidelines 73
Figure 10
Noise Measurement Locations 73
Figure 11
Results of the Continuous 24-hour Noise Measurement at Location A 73
Figure 12
Results of the Continuous 24-hour Noise Measurement at Location B 73
Figure 13
Number of trains and the Maximum Noise Levels they generated
during the 24-hour Monitoring 73
Figure 14
Future Noise Contours (L_{dn}) for Major Roadways 78
Figure 15
Future Noise Contours (L_{dn}) for the Southern Pacific Railroad 78

SUMMARY

This Draft Master Environmental Impact Report (DMEIR) evaluates the probable environmental effects of the City of Turlock's Draft Northwest Triangle Specific Plan (February 1995) as required by the California Environmental Quality Act (CEQA) and the CEQA Guidelines. Readers wishing to be fully informed about the proposed project should consult a complete copy of the proposed Specific Plan, Draft for Public Review.

This is a Master Environmental Impact Report, which evaluates the anticipated environmental impacts of the proposed Specific Plan and subsequent publicly- and privately-sponsored projects which will implement the Specific Plan. The most detailed portion of this document examines areas of impacts which, in early assessments, were judged to have the potential for significant environmental effects. These areas of impact are agricultural productivity, traffic, air quality and noise. Elsewhere in the EIR a number of alternatives to the proposed project are evaluated in more general terms.

S.1 PROPOSED PROJECT

The project analyzed in this Draft Master Environmental Impact Report (DMEIR) is adoption by the City of Turlock of the Turlock Northwest Triangle Specific Plan and accompanying General Plan Amendments. The Specific Plan is a document establishing City policy and procedures relating to development and conservation of approximately 1,000 acres in the northwest portion of the City of Turlock's Planning Area, including some incorporated and some unincorporated area. The area's location in the region is shown in Figure 1, and its location in the City is shown in Figure 2. The Northwest Triangle is bounded generally by Fulkerth Road to the south, the eastern property line of parcels fronting on Golden State Avenue to the east, and the western property line of parcels fronting on Tegner Road to the west. The northern boundary is Taylor Road, as shown on Figure 2.

The Specific Plan has been prepared in conformance with State statute governing preparation of specific plans, which requires that "A specific plan shall include a text and a diagram or diagrams which specify all of the following in detail: (1) the distribution, location, and extent of the uses of land, including open space, within the area covered by the plan. (2) The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan. (3) Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where

applicable. (4) A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3)." (Government Code Section 65451).

The Specific Plan envisions substantial changes in the land use pattern of the Northwest Triangle, transforming what is in 1995 a mixed urban and agricultural area into one that is highly urbanized with agricultural activities continuing only on the west side of Highway 99. As is discussed in Section 3.D. below, over 420 acres of land in the Northwest Triangle were in agricultural use in 1994; at Specific Plan buildout just over 80 acres will remain in agricultural use. At buildout there will be over 4.5 million square feet of commercial space in the Specific Plan area, and a population of approximately 2,700 living in 1,160 housing units; just over half will be single family units (an existing apartment complex, the Oak Park apartments, has over 400 units).

S.2 PROJECT IMPACTS

Section 3 of the MEIR discusses impacts that would be created by the Draft Specific Plan, and states conclusions as to whether the impacts are significant, significant but capable of being mitigated to a less-than-significant level with specified measures, or significant and incapable of mitigation to a level of insignificance (in some such cases, mitigation measures that would reduce the magnitude of impacts are specified). Both project-level and cumulative impacts are identified.

Table S-1 summarizes the significant impacts and recommended mitigation measures identified in the MEIR. The table is organized by topic, with topics listed in the sequence in which they are addressed in Section 3. Significant impacts are identified in the areas of air quality, agriculture and noise. As indicated in the table and in the Section 3 text, while some mitigation is available, significant impacts will remain in each of these three areas even following implementation of mitigation measures. Specifically, the impacts which are incapable of mitigation to a level of insignificance are: (1) Regional impacts on long-term air quality, (2) Loss of prime agricultural land, and (3) Traffic noise increases affecting existing residences along Monte Vista Road between Golden State Boulevard and Walnut Road.

The Summary Table does not address all potential impact areas, including some that may be of particular concern to Turlock residents and decision-makers. This is because a number of impacts were evaluated during the first phase of environmental review and determined to not have the potential for significant impact, based on existing City policies imposing standard conditions of project approval, along with the analysis and principles contained in the Specific

Plan document. These impact areas are discussed briefly in MEIR Section 3 under the heading "Impacts found not to be significant." They are: earth/geology, water, vegetation and wildlife, land use, population, housing, visual impacts, and public services and utilities. For additional information about standard mitigation measures which will be used to limit impacts in these areas, readers should consult the Initial Study, which is included as Appendix C of the MEIR.

S.3 ALTERNATIVES TO THE PROJECT

As directed by the CEQA Guidelines (Section 15126(3)), the discussion of alternatives in Section 4 of the EIR focuses on "alternatives capable of either eliminating any significant Environmental effects or reducing them to a level of insignificance, even if such alternatives would be more costly or to some degree would impede the project's objectives." Four alternatives are described and evaluated in general terms in the MEIR: Agricultural Protection Alternative, Residential/Heavy Commercial Emphasis Alternative, Combination Alternative, and No Project Alternative. Section 4 includes, for each of these, a description, an assessment of effectiveness in reducing project impacts, and a description of how the alternative would influence attainment of the project objectives identified in Section 1, Project Description. Table S-2 summarizes and compares the alternatives.

The MEIR concludes that the Combination Alternative represents the environmentally superior alternative. However, this alternative is the one that most diverges from stated project objectives.

S.4 AREAS OF CONTROVERSY

The City of Turlock, as the Lead Agency, is aware of several areas of controversy related to environmental issues addressed in this EIR. Principle areas of controversy include conversion of agricultural land to urban uses and impact of urban growth on air quality.

S.5 ISSUES TO BE RESOLVED

This MEIR is to be used by the Turlock Planning Commission and City Council in their consideration of the proposed Northwest Triangle Specific Plan. Issues to be resolved include whether the Draft Specific Plan should be modified based on the information and analysis contained in this document, and which of the mitigation measures specified here will be selected in order to mitigate identified significant effects of the proposed project.

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

TRAFFIC AND CIRCULATION

IMPACT	MITIGATION	MONITORING ACTION	RESPONSIBILITY	TIMING
The proposed Specific Plan will not increase traffic volumes beyond those anticipated in the 1992 General Plan. Improvement projects in the General Plan (Section 5) and the Specific Plan (Chapter 3) will result in helping the roadway network accommodate future increases in traffic. All intersections are forecast to operate within the standards established by the General Plan. **Impacts are less than significant.**	No mitigation is required	No monitoring is required	Not applicable	Not applicable

AIR QUALITY

IMPACT	MITIGATION	MONITORING ACTION	RESPONSIBILITY	TIMING
Construction Impacts: Construction activities are of concern because they are a source of organic gas emissions and can increase dustfall, elevating local levels of airborne particulates (PM-10). Specific Plan Appendix C includes measures to minimize air quality construction impacts. **The air quality impacts of construction are less than significant.**	No mitigation is required	No monitoring is required	Not applicable	Not applicable
Impacts on Local Carbon Monoxide Concentrations: Future conditions at intersections in the project area under the cumulative development scenario will not cause exceedances of carbon dioxide standards. **The air quality impacts of the project on local carbon monoxide concentrations are less than significant.**	No mitigation is required	No monitoring is required	Not applicable	Not applicable

AIR QUALITY

IMPACT	MITIGATION	MONITORING ACTION	RESPONSIBILITY	TIMING
Regional Impacts on Long Term Air Quality: The project would have a significant impact on emission of ozone precursors. Mitigation measures will result in reduction of impacts by 10 to 15 percent, but there is no available way to reduce impacts below significance thresholds. **The project's impact on regional air quality is a significant and unavoidable cumulative impact that cannot be fully mitigated with project implementation.**	(1) Implementation and compliance with Specific Plan principles and development standards governing the location, operation, design, and intensity of land use. (2) all employment-generating uses within the Specific Plan area will be required to participate with the SJVUAPCD, SAAG, and/or SJCOG "Commute Connection," or successor(s), to establish appropriate site and project-specific trip reduction strategies. (3) Gas stations locating in the Specific Plan area will be required to make	Review and approval of development plans and construction documents.	City of Turlock and Project Applicant	Prior to approval of subdivision maps, and/or at the time of permit issuance.

AGRICULTURE				
IMPACT	**MITIGATION**	**MONITORING ACTION**	**RESPONSIBILITY**	**TIMING**
Loss of Prime Agricultural Land: The proposed Specific Plan would have a direct impact on agriculture by displacing up to 380 acres of agricultural land, almost all of which is classified as Prime farmland. **This is a significant and unavoidable cumulative impact that will not be mitigated.**	The only measure available which would reduce impacts on agriculture to a level of insignificance would be wholly inconsistent with the project objectives. Therefore, no mitigation measures are imposed by this EIR.	None required	Not applicable	Not applicable
Economic Impacts: Though the project would result in a direct loss of economic activity as a result of the conversion of active farmland, the economic value of urban activities replacing agricultural production would more than compensate for the loss. **The economic impacts of farmland conversion are less than significant.**	No mitigation is required	No monitoring is required	Not applicable	Not applicable

AGRICULTURE				
IMPACT	**MITIGATION**	**MONITORING ACTION**	**RESPONSIBILITY**	**TIMING**
Impacts to Surrounding Farmland: Impacts to farmland on the perimeter of the Specific Plan area are addressed by Principles in Specific Plan Chapter 6, which seek to support agricultural activities in areas so designated by the City and the County. **The impacts of Specific Plan adoption on surrounding farmland are less than significant.**	No mitigation is required	No monitoring is required	Not applicable	Not applicable

NOISE				
IMPACT	**MITIGATION**	**MONITORING ACTION**	**RESPONSIBILITY**	**TIMING**
Noise and Land Use Compatibility: Residential development planned along Countryside Drive, Tuolumne Road, Fulkerth Road and Tully Road would potentially be exposed to noise levels above 60 Ldn. **These are potentially significant impacts that can be mitigated to a less-than-significant level.**	(1) A combination of open-space buffer zones and/or noise barriers along roadways will be used to reduce the Ldn to 60 dBA or less. (2) All housing located within the 60 dBA Ldn contour shall be designed such that the indoor Ldn shall not exceed 45 dBA. (3) Design of all housing located within 600 feet of the railroad tracks shall be reviewed by a qualified acoustical engineer to insure that designs would result in exterior and interior noise levels in conformance with City and State guidelines.	Review and approval of development plans and construction documents.	City of Turlock and Project Applicant	(1) Prior to approval of subdivision maps, and/or at the time of permit issuance. (2) Prior to building permit issuance. (3) Prior to building permit issuance.

NOISE				
IMPACT	**MITIGATION**	**MONITORING ACTION**	**RESPONSIBILITY**	**TIMING**
Traffic Noise Increases: Noise levels along Monte Vista Avenue between Golden State Boulevard and Walnut Road are calculated to increase 4 dBA. This increase at existing residences would be substantial. **This traffic noise increase would be a significant impact that will not be mitigated.**	No acceptable mitigation is available. This impact would occur under the No Project alternative.	Not applicable	Not applicable	Not applicable
Construction Noise Impacts: During the various stages of construction, average noise levels could be as high as 75 dBA when measured 50 feet from the center of construction activity. Construction noise will be subject to the requirements of the City's noise ordinance which will limit impacts. **Construction noise impacts will be less than significant.**	No mitigation necessary	Not applicable	Not applicable	Not applicable

TABLE S-2
COMPARISON OF ALTERNATIVES WITH PROPOSED PROJECT

Project / Alternative	Changes from Proposed Project	Impacts on Noise	Impacts on Air Quality	Impacts on Agricultural Productivity	Impacts on Traffic
Proposed Project	n.a.	not significant	significant regional impacts	significant interim and long term impacts	no significant impacts
Agricultural Protection Alternative	Adds principles to retain agricultural activity during buildout period	no change	no change	reduces interim impacts; no change in long term impacts	no change
Residential / Heavy Commercial Emphasis Alternative	Revises land use pattern to reduce community commercial, increase heavy commercial and residential acreage	decreases auto-related noise, increases exposure of residences to railroad noise (not significant after mitigation)	some reduction in emissions due to reduction in auto trips; significant regional impacts remain	no change from proposed project	some reductions in trip generation

TABLE S-2
COMPARISON OF ALTERNATIVES WITH PROPOSED PROJECT

Project / Alternative	Changes from Proposed Project	Impacts on Noise	Impacts on Air Quality	Impacts on Agricultural Productivity	Impacts on Traffic
Combination Alternative	Adds principals from Agricultural Protection Alternative and map changes from Residential/Heavy Commercial Emphasis Alternative	decreases auto-related noise, increases exposure of residences to railroad noise (not significant after mitigation)	some reduction in emissions due to reduction in auto trips; significant regional impacts remain	reduces interim impacts; no change in long term impacts	some reductions in trip generation
No Project Alternative	Specific Plan would not be adopted; development would proceed consistent with General Plan	No change (assuming noise mitigation measures imposed through EIR process	no change	no change	no change

notes: all impacts described here are after mitigation outlined in Section 3.

TURLOCK REGIONAL LOCATION

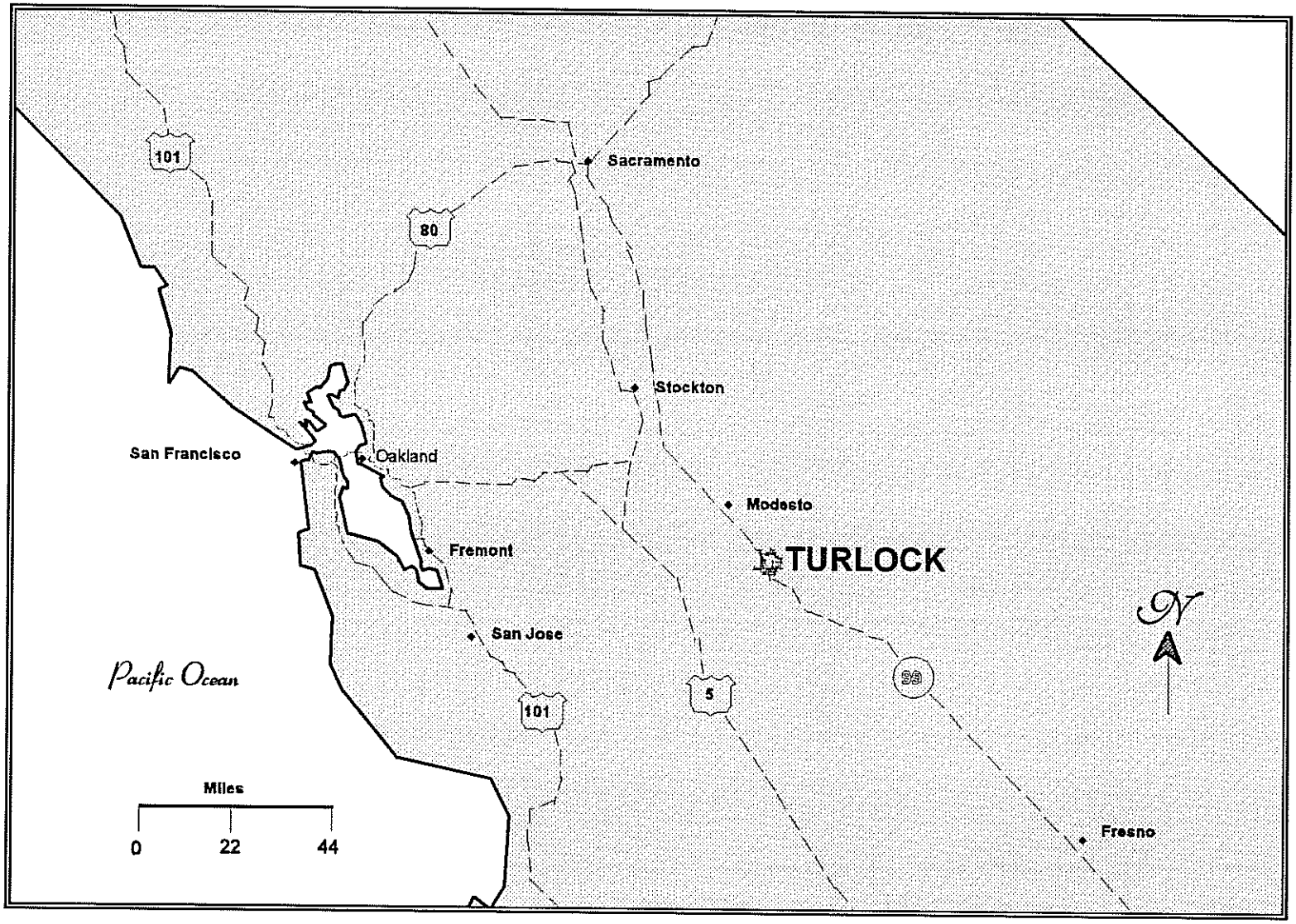


Figure 1

NORTHWEST TRIANGLE SPECIFIC PLAN - LOCATION IN CITY

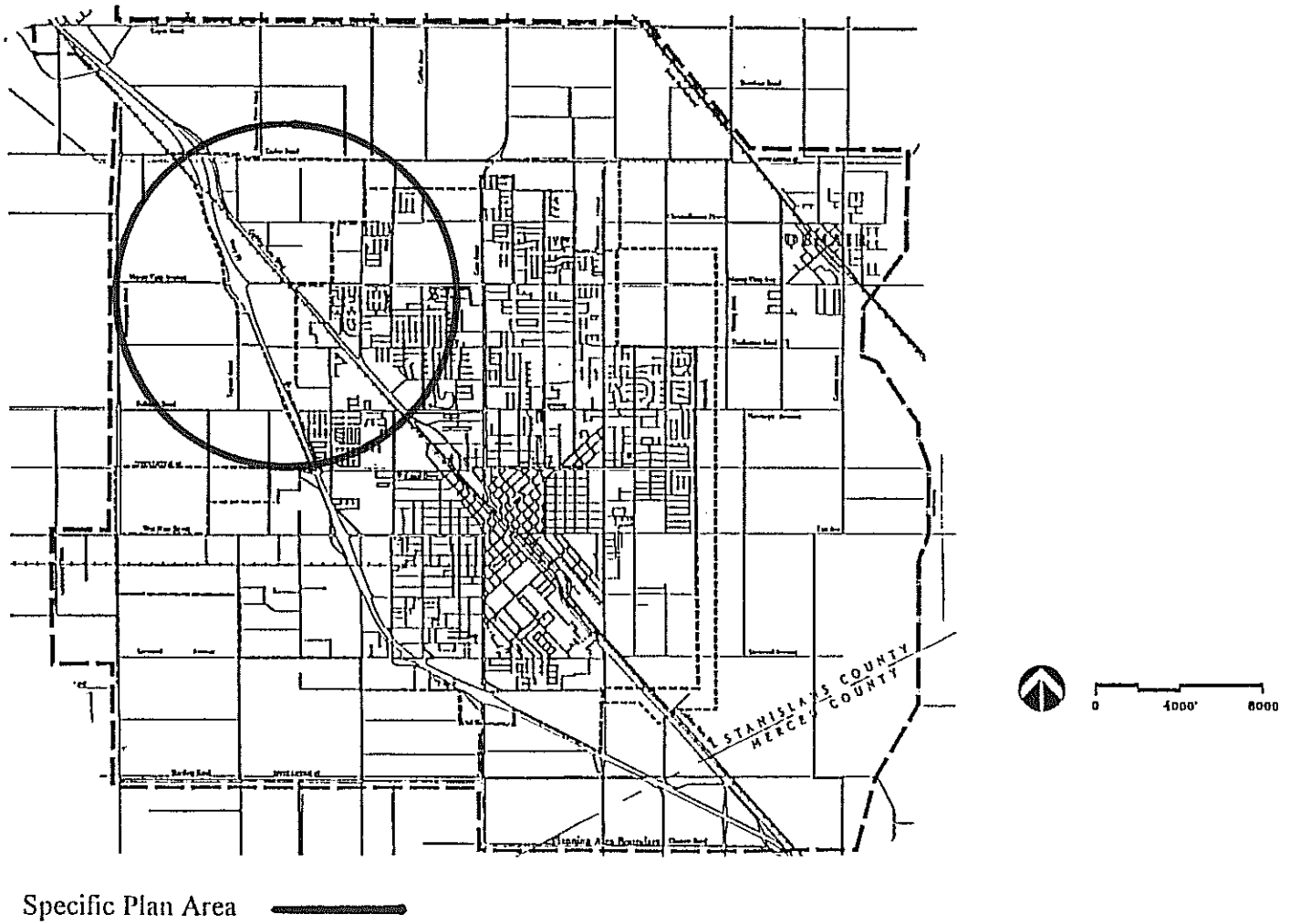


Figure 2

1.A. PROJECT DESCRIPTION

The project analyzed in this Draft Master Environmental Impact Report (DMEIR) is adoption by the City of Turlock of the Turlock Northwest Triangle Specific Plan and accompanying General Plan Amendments. The Specific Plan is a document establishing City policy and procedures relating to development and conservation of approximately 1,000 acres in the northwest portion of the City of Turlock's Planning Area, including some incorporated and some unincorporated area. The area's location in the region is shown in Figure 1, and its location in the City is shown in Figure 2. The Northwest Triangle is bounded generally by Fulkerth Road to the south, the eastern property line of parcels fronting on Golden State Avenue to the east, and the western property line of parcels fronting on Tegner Road to the west. The northern boundary is Taylor Road, as shown on Figure 2.

The Specific Plan has been prepared in conformance with State statute governing preparation of specific plans, which requires that "A specific plan shall include a text and a diagram or diagrams which specify all of the following in detail: (1) the distribution, location, and extent of the uses of land, including open space, within the area covered by the plan. (2) The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan. (3) Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable. (4) A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3)." (Government Code Section 65451).

The Specific Plan, which should be consulted by all readers wishing to have a complete understanding of the project, addresses all major issues relevant to development and conservation of the area. This MEIR analyzes the potential for significant environmental impacts to be created as a result of the project, which is defined as adoption and full implementation of the Specific Plan. Full implementation signifies not merely development as envisioned by the Plan, but development consistent with all policies regarding urban design, resource conservation, public facilities, etc. Full implementation of the Specific Plan will require actions by the City of Turlock, other public agencies, and private organizations.

The Specific Plan does not seek to regulate or anticipate the rate at which development will occur. While some projects consistent with the Plan are likely to move forward shortly after Plan adoption, others may not proceed for some time. It is reasonable to anticipate that a

period of at least 10 years will pass prior to full buildout (i.e., development of all Specific Plan properties in conformance with the Plan). Despite the long time period, the EIR analyzes the impact of the cumulative effect on conditions in the Specific Plan area at the point at which full implementation has occurred. A specific date for full implementation is not assumed for this analysis.

1.B. ENVIRONMENTAL SETTING

The Specific Plan area is quite uniform, with no significant topographic or hydrologic features. A long history of intensive agricultural cultivation has resulted in absence of native vegetation and habitat. There are no natural watercourses, though there are irrigation canals owned by the Turlock Irrigation District (TID). The area's rich soils support row crops and orchards, as is discussed below in detail in Section 3.C. An absence of native vegetation does not equate to an absence of habitat. Agricultural environments support habitat for a number of species, particularly small birds and mammals. Vineyards and row crops provide habitat for species including quail, mourning doves, opossums, rabbits, rodents, and pheasants. There is no evidence of the presence of any special status species in the Specific Plan area.

The Northwest Triangle, like most of the San Joaquin Valley, has a semi-arid or inland Mediterranean climate, with mild winters, hot dry summers and a small amount of rain which is concentrated in the period from November through February.

The urbanized portions of the planning area are developed at fairly low densities, with commercial uses generally in single story buildings. Newer development is west of Golden State Boulevard, where a mix of housing types, heavy commercial and community retail uses are found.

1.C. EIR APPROACH

The analysis in this document compares conditions that would occur following full implementation of the proposed Specific Plan with a "base case." That base case is the physical and regulatory environment existing in the Specific Plan area in 1994. Analysis of all types of impacts thus compare the future buildout condition to the current condition and the future conditions contemplated in the Turlock General Plan. Because of the nature of the information and analysis tools available for use in preparing this EIR, some portions of the impact assessment, including the sections addressing traffic and noise impacts, present a cumulative analysis. That is, the existing environmental setting is compared to conditions that will be in place with buildout of the Specific Plan area and buildout of the remainder of the City in

conformance with the Turlock General Plan.

As is discussed in Section 1.D. under "Specific Plan Objectives," a primary objective of Specific Plan adoption is to implement the City's General Plan, adopted in 1993. The General Plan was subject to environmental review, and this document relies somewhat on the Master Environmental Assessment and Draft Environmental Impact Report (State Clearinghouse No. 92022042) that analyzed the potential environmental impacts of the General Plan. The General Plan EIR has been used primarily in scoping this document, i.e. in determining what impact areas warrant examination here.

This document is a Master Environmental Impact Report (MEIR) as authorized by the 1993 amendments to the California Environmental Quality Act (CEQA) which added Chapter 4.5 to Division 13 of the Public Resources Code. Article 2 of Chapter 4.5, section 21157, establishes that "A master environmental impact report may be prepared for...A general plan, element, general plan amendment, or specific plan." Preparation and certification of a master environmental impact report is intended to streamline later environmental review by providing for limited review of subsequent projects which are consistent with the land use designation contained in the Specific Plan and described in the MEIR.

The following requirements must be met in order for the CEQA process to be streamlined: (1) the City or a responsible agency identified in the MEIR must be the lead agency for the subsequent project; (b) the lead agency must prepare an initial study on any proposed subsequent project that analyzes whether the subsequent project may cause any significant effect on the environment that was not examined in the MEIR and whether the subsequent project was described in the MEIR as being within the scope of the report. If the lead agency determines that a proposed subsequent project will have no additional significant effect on the environment that was not identified in the MEIR and that no new or additional mitigation measures or alternatives may be required, the lead agency shall make a written finding that the subsequent project is within the scope of the project covered by the master environmental impact report. If these requirements are met, no new environmental document nor findings are required. (sec. 21157.1)

An exception to these requirements applies if more than five years passes between certification of the MEIR and filing of an application for a subsequent project. In such a case, the MEIR may only be used after the City reviews it adequacy and finds that it remains current, or certifies a subsequent or supplemental EIR (Section 21157.6).

1.D. SPECIFIC PLAN OBJECTIVES

The Specific Plan has four principal objectives, described below.

Objective 1: Implementing the General Plan

The Turlock General Plan, adopted in March, 1993, establishes for the entire city land uses, circulation patterns and policies on a wide range of development and conservation issues. The General Plan recognizes the possible need for a Specific Plan in order to refine and modify General Plan policies for the Northwest Triangle (Policy 2.4-p, p. 2-18). The intent of the Specific Plan is not to re-examine the General Plan's policy direction, but rather to create a document that will add detail and implementation programs. General Plan amendments accompanying the Specific Plan are specific changes needed in order to achieve the General Plan's expressed intent. Section 1.4 of the Specific Plan describes in greater detail the relationship of the Specific Plan to the General Plan.

Objective 2: Allowing Development to Proceed without Unnecessary Delay

A primary reason for preparing the Specific Plan is to facilitate subsequent review and approval of applications for development consistent with Specific Plan policies. The technical analyses conducted as background for the Specific Plan investigated all of the factors relevant to planning for future development. By comprehensively addressing land use regulation, circulation, utilities and environmental factors, the Specific Plan and MEIR remove the need for each applicant to independently conduct such studies. Resolving in advance any potentially controversial issues related to these topics also reduces the possibility of time-consuming delays because of disagreement about project impacts.

Objective 3: Providing for Efficient Extension of Services

One aspect of achieving the two purposes listed above is to provide for efficient extension of urban services to those properties in the Plan area that are designated for urban development. As part of the work that went into preparation of this document, City departments prepared plans for extension of all necessary services. The results of their efforts are described and illustrated in Chapter 4 of the Specific Plan, and summarized below in Section 1.F.

Objective 4: Establishing Funding Mechanisms for Improvements

The Specific Plan describes public improvement costs and mechanisms for generating revenue to cover needed investments, establishing an equitable basis for property owners to all pay their share. This approach, which looks at the cumulative cost of serving properties in a unified geographic area, reduces uncertainty about the cost of development and prevents a situation where individuals who develop later than others are left "holding the bag" and are forced to pay more than their share.

1.E. SUMMARY OF MAJOR CHANGES ENVISIONED BY THE DRAFT SPECIFIC PLAN: LAND USE AND POPULATION

The Specific Plan envisions substantial changes in the land use pattern of the Northwest Triangle, transforming what is in 1995 a mixed urban and agricultural area into one that is highly urbanized with agricultural activities continuing only on the west side of Highway 99. As is discussed in Section 3.D. below, over 420 acres of land in the Northwest Triangle were in agricultural use in 1994; at Specific Plan buildout just over 80 acres will remain in agricultural use. At buildout there will be over 4.5 million square feet of commercial space in the Specific Plan area, and a population of approximately 2,700 living in 1,160 housing units; just over half will be single family units (an existing apartment complex, the Oak Park apartments, has over 400 units).

Figure 3 is the Specific Plan diagram, illustrating the future land use and circulation pattern for the area. Appendix A defines the Specific Plan land use categories, and Tables 1-1 through 1-3 quantify the development, employment and population potential represented by the land use pattern. The Specific Plan divides the Northwest Triangle into six subareas for the purpose of analysis, description and data presentation. Descriptions of the future land use patterns of each subarea are below.

Monte Vista West

The Monte Vista West subarea contains a "triangle-within-a-triangle": the area bound by Golden State Boulevard, Highway 99, and Monte Vista Drive. It also includes the property south of Monte Vista on the east side of Countryside Drive, extending south to the north edge of residential development. This subarea, which in 1995 is largely in agricultural use, is designated for Heavy Commercial uses. A wide range of employment-generating and visitor-serving uses will be permitted, including maintenance and repair businesses, building materials and services, commercial recreation, and limited industrial uses. A storm drain detention basin, approximately

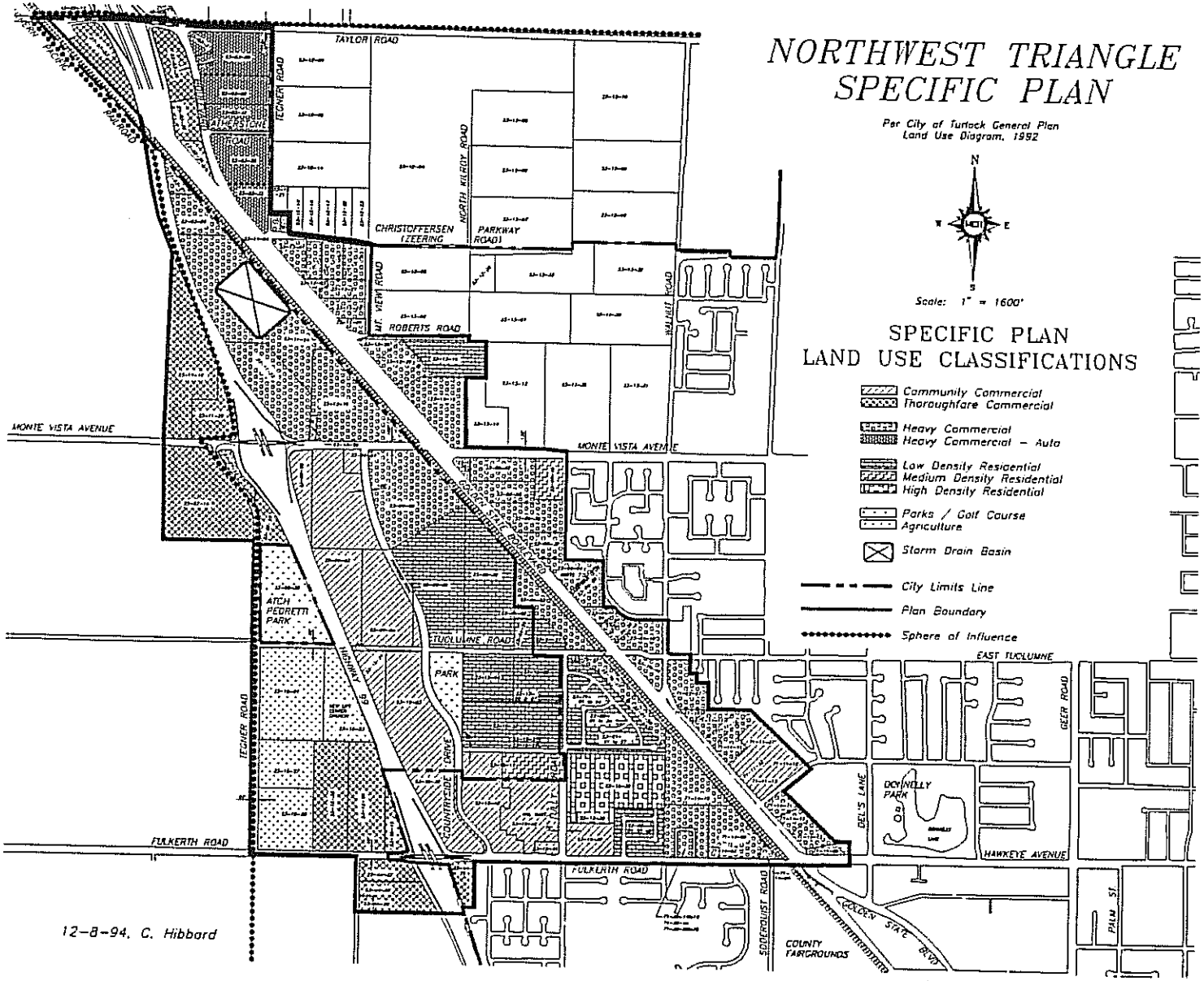

NORTHWEST TRIANGLE
SPECIFIC PLAN
Per City of Turlock General Plan
Land Use Diagram, 1992
N
W
E
S
Scale: 1" = 1600'
SPECIFIC PLAN
LAND USE CLASSIFICATIONS
Community Commercial
Thoroughfare Commercial
Heavy Commercial
Heavy Commercial - Auto
Low Density Residential
Medium Density Residential
High Density Residential
Parks / Golf Course
Agriculture
Storm Drain Basin
City Limits Line
Plan Boundary
Sphere of Influence
TAYLOR ROAD
TEGNER ROAD
WATERSTONE ROAD
CHRISTOFFERSEN PARKWAY
NORTH KILROY ROAD
MT. VIEW ROAD
ROBERTS ROAD
WALNUT ROAD
MONTE VISTA AVENUE
ATCH PEDRETTI PARK
TUOLUMNE ROAD
EAST TUOLUMNE
HIGHWAY 99
COUNTRYSIDE DRIVE
GEER ROAD
DELIS LANE
DONNELLY PARK
HAWKEYE AVENUE
FULKERTH ROAD
SOPERVISTA ROAD
GOLDEN STATE BLVD
COUNTY FAIRGROUNDS
PALM ST.
12-8-94, C. Hibbard

Figure 3

12-acres in size, will be located north of Monte Vista Avenue. South of Monte Vista, the 24-acre site designated for Heavy Commercial uses may house a multi-tenant development that provides space for a mix of businesses, or a single user.

Because the larger parcels north of Monte Vista have adjoining street frontage only on their south edge or not at all, development intensity in the triangle is subject to special limitations based on the vehicle trip generation of future uses (See Specific Plan Table 2-F).

Golden State East

The properties on the east side of Golden State Boulevard developed under the jurisdiction of Stanislaus County, and were annexed to the City in 1994. Parcel sizes are small, and uses are mixed, ranging from single family houses to car dealerships to unique semi-public uses like the Assyrian-American Civic Club. While most of the area is designated for general Heavy Commercial use, the north end is designated as the City's auto center, and the sites of the bowling alley, motel and restaurant are designated Community Commercial in order to reflect uses existing in 1995. Plan principles do not envision dramatic change in this area, but instead provide for improvement of public services and establish urban design standards that will be applied as new development occurs. The exception is the auto center along Golden State just south of Taylor, envisioned as an area developed at uniform standards where auto dealers and related businesses will be concentrated in a highly-visible and easily-accessible location. The small number of properties designated for residential use in the Golden State East subarea will be subject to the development standards established for the Tuolumne West Residential Subarea, and those in the Turlock Municipal Code.

TABLE 1-1

SUMMARY OF ADDITIONAL DEVELOPMENT POTENTIAL
COMMERCIAL USES (in thousands of square feet)

	TOTAL ACRES	HC/G	HC/AUTO	T.C.	C.C.	TOTAL CMRCL
MONTE VISTA WEST	106	742	0	0	0	742
GOLDEN STATE EAST TOTAL	194	470	678	75	116	1,339
COUNTRYSIDE COMMERCIAL TOTAL	153	0	0	110	1,262	1,372
RAILROAD TOTAL	41	430	0	0	0	430
E. OF 99 TOTAL	494	1,633	678	185	1,378	3,874
WEST OF 99 TOTAL	197	0	0	907	0	907
SPECIFIC PLAN AREA TOTAL	**691**	**1,633**	**678**	**1,092**	**1,378**	**4,782**

HC/G = Heavy Commercial (General)
HC/Auto = Heavy Commercial (Auto)
T.C. = Thoroughfare Commercial
C.C. = Community Commercial

TABLE 1-2

RESIDENTIAL DEVELOPMENT AND POPULATION GROWTH POTENTIAL

	Existing Housing Units as of May 1994				Capacity for Additional Units				Change in Housing Unit Supply			
	single family detached	single family attached	multi family	TOTAL	low density	medium density	high density	TOTAL	single family detached	single family attached	multi family	TOTAL
East of Golden State	16	3	0	19	39	55	0	94	-55	-58	0	-113
West of Golden State												
North of Tuolumne	1	0	0	1	252	0	0	252	253	0	0	253
South of Tuolumne												
East of Tully	125	48	408	581	0	0	16	16	125	48	424	597
West of Tully	4	0	0	4	168	71	0	239	172	71	0	243
TOTAL	**146**	**51**	**408**	**605**	**459**	**126**	**16**	**601**	**495**	**61**	**424**	**980**
	Approximate Population as of May 1994				**Capacity for Population Additions**				**Population at Plan Buildout***			
	single	single			(ave pop / d.u. = 2.74)				single	single		
Population	family	family	multi		low	medium	high		family	family	multi	
(based on 2.74 persons / d.u.)	detached	attached	family	TOTAL	density	density	density	TOTAL	detached	attached	family	TOTAL
East of Golden State	44	8	0	52	107	151	0	258	-151	-159	0	-310
West of Golden State												
North of Tuolumne	3	0	0	3	690	0	0	690	693	0	0	693
South of Tuolumne												
East of Tully	343	132	1,118	1,592	0	0	44	44	343	132	1,162	1,636
West of Tully	11	0	0	11	460	195	0	655	471	195	0	666
TOTAL	**400**	**140**	**1,118**	**1,658**	**1,258**	**345**	**44**	**1,647**	**1,356**	**167**	**1,162**	**2,685**

note: population figures preceeded by a (-) indicate reduction in population in the area.

TABLE 1-3

SUMMARY OF POTENTIAL EMPLOYMENT ADDITIONS

COMMERCIAL USES

(estimate based on 1.5 employees / 1,000 s.f. of commercial space)

	JOBS	COMMERCIAL SPACE (ooo's of s.f.)
MONTE VISTA WEST	1,110	742
GOLDEN STATE EAST	2,010	1,339
COUNTRYSIDE COMMERCIAL		
COMMERCIAL	2,090	1,393
RAILROAD HEAVY COMMERCIAL		
COMMERCIAL	650	430
EAST OF 99 TOTAL	**5,860**	3,904
WEST OF 99 TOTAL	1,360	907
SPECIFIC PLAN AREA TOTAL	**7,220**	1,[illegible]04

source: SAAG March 16, 1993 Memo regarding employment projections

Countryside Community Commercial

With the construction of the first phase of the Countryside Plaza shopping center (WalMart), the Countryside Community Commercial subarea began to take shape. The subarea extends from Fulkerth to Monte Vista between 99 and Countryside Drive, and is easily seen and easily accessible to freeway travellers. When fully developed, the subarea will have Turlock's largest concentration of retail space: over 1.4 million square feet. It isn't possible to anticipate just what kinds of businesses will locate in the area, especially since full development may take more than a decade. However, in 1995 we do know that the southern end of the planning area is likely to house a "power center" including a number of large warehouse-type stores. A multi-screen movie theater would also be permitted in the area. Development in the Countryside Commercial subarea will not just expand the amount of shopping in the City, it will expand the type of goods available, allowing Turlock residents to make more of their major purchases in town, and offering the potential for a significant increase in the City's sales tax revenues.

Railroad Heavy Commercial

On both sides of Tuolumne and south to Fulkerth is a string of properties with the Southern Pacific tracks at their east edge. These comprise the Railroad Heavy Commercial subarea, which is largely developed in 1995. The same mix of uses that is allowed in the Monte Vista West and Golden State East areas with the Heavy Commercial designation are allowed here. However, historic uses such as Turlock Concrete, combined with the need to co-exist peacefully with adjoining residential properties, may influence what activities settle in this area.

Tuolumne West Residential Neighborhoods

In 1995, the Royal Oaks and Fulkerth Manor subdivisions and the Oak Park Apartments form the core of the future residential neighborhood in the Northwest Triangle. The number of dwelling units will increase by about 80%, bringing enough activity to create a neighborhood big enough to have identity and vitality. (Table 1-2 provides information on housing and population in the subarea in 1994 and at Specific Plan buildout). Though most of the units added will be single family units, there will be a mix of lot sizes and building types as is described in the urban design section of the Specific Plan. A neighborhood park in the subarea will offer a design feature as well as a place to play, rest and meet.

West of 99

The themes and policies of the General Plan repeatedly stress the goal of maintaining Turlock as a freestanding city surrounded by productive agricultural land. Inclusion of land west of Highway 99 in the City's General Plan planning area and now in the Specific Plan provides a way for the City to express its policy regarding land that will not become urbanized. Agricultural activity as well as the public and semi-public activities now in place (Pedretti Park and the existing church), will continue. Stanislaus County, in its General Plan has designated for commercial use the parcels adjoining the interchanges at Monte Vista and Fulkerth on the west side of 99. In keeping with the City's policy of respecting the County's land use designations, these sites are shown on the Specific Plan designated for thoroughfare commercial uses.

Development Standards

In addition to establishing land use regulations that apply to the entire Specific Plan area, the Specific Plan contains development standards for each type of development and each subarea. These standards, included in Chapter 2 of the Plan, regulate various aspects of building and site design, including height, setbacks, required yards, landscaping etc. For each subarea the development standards are intended to reflect principles expressing a design theme or objective.

1.F. PRINCIPAL PROPOSALS RELATING TO INFRASTRUCTURE AND PUBLIC SERVICES

The Specific Plan diagram illustrates one aspect of the project: the area's future physical development pattern. Other aspects are described in text principles throughout the Specific Plan document, which address subjects ranging from architectural design to street improvements to police service. Key principles are summarized below, but the Specific Plan should be consulted for a full understanding of Plan principles.

1.F.1. TRANSPORTATION FACILITIES

The backbone of the circulation network for the Northwest Triangle is established in the General Plan Transportation Element. Most of the primary roadways in the Specific Plan area exist in 1995, but are not fully improved to the ultimate configuration identified in the General Plan. A number of roads in the Specific Plan area which will ultimately be four lane arterials or collectors are in 1995 two lanes with graded shoulders. Table 1-4 lists major roadway

improvements in the Specific Plan area. These are described in greater detail in Section 3 of the Specific Plan and Section 3.B of the DEIR.

Several of the General Plan amendments accompanying or immediately following the Specific Plan make modifications to the General Plan Transportation Element. These include the following changes:

- **Circulation Diagram.** Alteration of street classifications relative to lane widths on Countryside Drive (changing the designation from two to four lanes) and Tuolumne Road (changing the designation from four to two lanes).

- **Bikeways Diagram.** Alteration of bikeways diagram to include a bike lane on Tuolumne Road, a bikeway on Countryside Drive north of Tuolumne extending north to the nearest commercial driveway, and a pedestrian and bicycle bridge over Highway 99 as an extension of the Tuolumne bike lane.

- **Modification to Policy 5.2-I re Stanislaus County's 1990 Regional Expressway Study.** Seek to amend Stanislaus County's 1990 Regional Expressway Study to change Golden State Boulevard's expressway designation to Class C for that potion between Taylor Road and Fulkerth Road, and remove the expressway designation for the portion between Fulkerth and Linwood Avenue. Additionally, seek to change the Taylor Road designation from an expressway to major collector or arterial status, and designate Christoffersen Parkway as the Class B east-west expressway in Turlock.

1.F.2. PARKS

Atch Pedretti Park is an existing community park located in the Specific Plan area on the west side of Highway 99 just south of Monte Vista Boulevard. Specific Plan policies relating to bikeways and a new bike/pedestrian overcrossing of Highway 99 will result in improved access to Atch Pedretti from the rest of the community.

A new neighborhood park at the southeast corner of Countryside and Tuolumne is designated by the Specific Plan. The park will be approximately six acres in size and will be designed to serve both the Tuolumne West neighborhood and patrons and employees of the Countryside Community Commercial subarea.

TABLE 1-4
MAJOR ROADWAY IMPROVEMENTS

Improvement Project	Limits	Description
Widen Taylor Road	Specific Plan Area	Improve as indicated in Table 3.3-B
Widen Monte Vista Avenue	Specific Plan Area	Improve as indicated in Table 3.3-B
Reconstruct Tuolumne Road	Countryside - Golden State	Improve as indicated in Table 3.3-B
Widen Fulkerth Road	SR 99 - West Edge of Specific Plan Area	Improve as indicated in Table 3.3-B
Golden State Boulevard	Taylor - Fulkerth	Complete to ultimate width with curbs, gutters and sidewalks
Complete Tully Road	Fulkerth - Tuolumne	Complete to ultimate width with curbs, gutters and sidewalks
Complete Countryside Dr.	Fulkerth - Northerly Edge of Countryside Plaza Northerly Edge of Countryside Plaza - Monte Vista Avenue	Complete as indicated in Table 3.3-B Extend northerly as indicated in Table 3.3-B
Improve Tegner	Specific Plan Area	Complete as indicated in Table 3.3-B
Construct new connector road	Countryside Drive - Tully Road	Complete as indicated in Table 3.3-B

TABLE 1-4
MAJOR ROADWAY IMPROVEMENTS

Improvement Project	Limits	Description
Signalize Intersections	SR 99 SB ramps/ Taylor SR 99 NB ramps/ Taylor	Interconnect signals on Taylor Road
	SR 99 SB ramps/Monte Vista SR 99 NB ramps/Monte Vista	Interconnect signals on Monte Vista Avenue
	Monte Vista/ Countryside Monte Vista/ Golden State	New signal and grade crossing improvements.
	SR 99 SB ramps/Fulkerth SR 99 NB ramps/Fulkerth	Interconnect signals on Fulkerth Road, and other improvements.
	Golden State/ Tuolumne	
	Tuolumne/ Countryside	

Source: See Specific Plan Chapter 7 - Implementation

1.F.3. STORM DRAIN

Storm drain improvements in the Northwest Triangle include projects needed to convey local runoff to the master system and projects needed to complete the Citywide master system. /The improvements, as shown in Specific Plan Figure 4, include 24" - 30" local collection lines - 42" subarea collection lines, and completion of a major 60" transmission line at the southern boundary of the Plan area. An approximately 12-acre storm drain basin is to be constructed in the Monte Vista subarea. The estimated cost for construction of storm drainage facilities is approximately $5.2 million.

To avoid delaying development because storm drain facilities have not been constructed, temporary onsite storm drainage basins may be allowed until necessary components of the citywide storm drainage system are in place to serve the development.

1.F.4. SEWAGE COLLECTION

Development in the Specific Plan area will result in an additional 0.6 million gallons per day (mgd) in sewer flows. The City's 1991 Wastewater Master Plan laid the groundwork for a 4.5 mgd plant expansion that will provide sufficient capacity to serve the projected needs of the City including the Specific Plan Area.

Most of the Specific Plan area is too low to be serviced by a gravity flow system integrated with the existing system. As described in Chapter 4 of the Specific Plan, the Northwest Triangle is divided into four service subareas, three of which will require construction of lift stations. Each subarea separately integrates with the larger citywide collection system. Estimated total cost for sewer improvements is $2.8 million dollars.

1.F.5. WATER DISTRIBUTION

The City presently operates 23 wells throughout its water system, two of which are in the Northwest Triangle. Specific Plan Figure 4-2 shows three additional well sites in the area, as well as a three million gallon storage tank near the intersection of Taylor and Golden State. The tank and wells in the Specific Plan area would provide water for peak-hour use to parts of the City outside as well as within the Specific Plan area. Construction of approximately 6.3 miles of 12" water distribution line will also be necessary. Total cost of water distribution facilities in the Northwest Triangle is approximately $4.5 million.

1.F.6. PUBLIC SERVICES

Chapter 5 of the Specific Plan addresses public services, including police, fire, schools, and county services. No new capital facilities relating to these services will be located in the Northwest Triangle. However, development in the area will result in increased demand for services, and, in the case of schools, will contribute to the need for new capital facilities elsewhere in the City. Full development will require the addition of 13 police personnel (8 of whom will be sworn officers). Total additional student generation is projected at 370; 220 in grades K-6, 60 in grades 7-8 and 90 in grades 9-12.

In addition to quantifying the additional demand anticipated to be generated by development in the Northwest Triangle, the Specific Plan identifies revenue sources that will pay for capital and operating costs so that services can be provided to the Specific Plan area at the City's standard level of services without adversely affecting services provided elsewhere in the City.

1.G. PLAN PRINCIPLES RELATING TO NATURAL RESOURCES AND PUBLIC HEALTH

Chapter 6 of the Specific Plan addresses natural resources and public health. Principles are established for soil conservation, conservation of vegetation and wildlife, water resources, air quality, protection of agriculture, and discovery and remediation of hazardous materials. In addition to establishing City policy relating to natural resources in the Northwest Triangle, the Specific Plan identifies other public agencies that are involved in regulating activities or protecting resources in the Specific Plan area. These include the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD), the Central Valley Regional Water Quality Control Board and the Stanislaus County Hazardous Materials Division. These and other agencies share responsibility with the City for protecting the resources of the Specific Plan area.

1.H. USES OF THE EIR

1.H.1. Agencies that will use the EIR

The City of Turlock will use the EIR as a decision-making tool during hearings on the Draft Northwest Turlock Specific Plan. Both the City's Planning Commission and the City Council will take into account the analysis and conclusions of the EIR in making their decisions on adoption of the Specific Plan.

Other agencies, including the Stanislaus County Local Agency Formation Commission (LAFCO), Stanislaus County and CalTrans may make reference to the EIR as an informational document but, with the exception of LAFCO are not expected to use it as the primary environmental document guiding future decisions. In fact, all of the approvals listed in Section 1.H.2. with the exception of annexation are projects for which the City will be the lead agency and decision-making body.

1.H.2. Subsequent approvals for which the EIR will be used

As is explained above, this MEIR is intended to anticipate and analyze the potential environmental effects of subsequent activities defined as projects under CEQA. Each such project will be the subject of an initial study to determine whether it may cause any significant effect on the environment that was not examined in this MEIR. If no potential for additional significant effects is found, and the City as lead agency will make written findings that the project is within the scope of the MEIR, and no new environmental document or findings shall be required.

Actions Concurrent with Certification of the MEIR:

- **Actions Anticipated to Take Place Concurrent with Certification of the MEIR**

  Adoption of the Northwest Triangle Specific Plan by the City of Turlock. Adoption of the Specific Plan will put into place all of the principles contained in the document. Following Specific Plan adoption, all City actions, including action on development applications and public works projects, will be required to be consistent with the Plan.

  Adoption of a General Plan Amendment related to Circulation Diagram, Bikeways Diagram and land use on parcel 23-15-17. General plan amendments are discussed in greater detail in Section 1.4 of the Specific Plan. These amendments insure consistency between the General Plan and the Specific Plan.

- **Actions Anticipated Subsequent to Certification of the MEIR**

  Pre-zoning consistent with the Specific Plan. Properties that are unincorporated at the time of Specific Plan adoption may be pre-zoned with a zoning designation consistent with Specific Plan land uses.

Re-zoning consistent with the Specific Plan. Many of the properties in the incorporated area will require rezoning in order to establish consistency between zoning and the Specific Plan and to implement the Plan's objectives.

Annexation. The Specific Plan calls for the City to initiate a comprehensive annexation request to LAFCO. Additional environmental documentation may be necessary, but this MEIR will provide most of the needed information and analysis.

Public works projects implementing Specific Plan principles. Public works projects which will provide all necessary urban services to Specific Plan properties are detailed in Chapters 3 (transportation) and 4 (other infrastructure) of the Specific Plan.

Approval of subdivision of existing parcels. Subdivision of existing parcels will be necessary for residential development as envisioned by the Specific Plan. Some commercially-designated parcels may also be subdivided.

Project approvals. This is the single most important category of subsequent approvals that are envisioned by this MEIR. Applications for development approvals will include more detailed information about uses, site design and building features than can be anticipated based on Specific Plan principles. While in some cases environmental studies may need to be conducted to address natural resource questions arising once project specifics are known, the MEIR is intended to eliminate the need for full CEQA review of subsequent projects that are fully consistent with the Specific Plan. Projects requiring Specific Plan and/or General Plan amendments are not covered by the MEIR.

Acquisition and improvement of park. The Specific Plan calls for acquisition and development of a four-to-six-acre park at the southeast corner of Countryside and Tuolumne. Acquisition may be through landowner dedication or purchase.

Adoption of Specific Plan Overlay Zone. Adoption of the Specific Plan will necessitate amendments to the Turlock Municipal Code including adoption of a "Specific Plan Overlay Zone".

Adoption of Gateway Overlay Zone. The City's urban design goals for its important entry points may lead to adoption of a Gateway Overlay Zone that would establish special standards applicable at Highway 99 / Taylor and/or Highway 99 / Monte Vista.

2. COMPATIBILITY OF THE PROJECT WITH RELEVANT PLANS AND PROGRAMS

2.A. TURLOCK GENERAL PLAN

The Turlock General Plan was adopted in March, 1993. It consists of eight elements (Land Use, Housing, Public Facilities and Services, Transportation, Open Space and Conservation, City Design, Noise, and Safety) and an implementation program. Implementing Policy 2.4-p of the General Plan calls for the preparation of a specific plan for the Northwest Triangle.

The Northwest Triangle Specific Plan is intended to serve the function of a specific plan as defined by state law. In other words, its emphasis is on "concrete standards and development criteria to supplement those of the general plan" (General Plan Guidelines, Office of Planning and Research, p. 36). To this end, the Specific Plan provides detailed standards for a targeted area at a level of detail which is greater than appropriate for the General Plan. In overall terms, the document is consistent with and promotes the policies of the General Plan. Principles in each chapter of the Specific Plan complement the broader policies in corresponding elements of the General Plan. Amendments to the General Plan that will be adopted concurrent with adoption of the Specific Plan are described in detail in Section 1.4 of the Specific Plan.

2.B. STANISLAUS COUNTY GENERAL PLAN

The Stanislaus County General Plan was adopted in June, 1987 and was revised in April 1988. The Plan consists of six elements (Land Use, Circulation, Conservation/Open Space, Noise, Safety, and Housing). An Agricultural Element was subsequently adopted in April, 1992 (see separate discussion below).

The Plan emphasizes the protection of agricultural land and avoidance of conflicts between urban development and agricultural uses. Its basic premise is that growth should be restricted to spheres of influence around urban areas, allowing farming to continue without interference on the rest of the Valley floor. The Plan recognizes and supports the rights of cities to annex land, but emphasizes that growth should occur adjacent to cities at moderate or high densities to avoid urban sprawl. In broadest terms, the Specific Plan is consistent with the County Plan because it directs development into an area immediately adjacent to a city and proposes densities that are generally higher than the prevailing densities in other new Turlock neighborhoods.

The Land Use Element of the County Plan contains 28 policies, including several that address the conversion of farmland to urban uses and the approval of development within City spheres of influence. Policy 2 states the County's intent to protect land designated for agriculture by retaining no less than 40-acre minimum zoning in such areas. Policy 14 reiterates the commitment to avoiding agricultural-urban conflicts. Both policies are targeted to land outside city spheres of influence and are consistent with the Specific Plan.

County Land Use Policy 27 requires development in the Turlock Sphere of Influence to be consistent with a Mutual Support Agreement between the City and County. The Policy discourages General Plan Amendments (GPA) from agriculture to urban uses, but supports development of other areas in the Turlock sphere already designated for urban growth. Since the Northwest Triangle Specific Plan does not require a GPA from agriculture to urban uses, it is consistent with this policy.

The Stanislaus County General Plan Map designates the Northwest Triangle for a variety of urban uses, including Commercial, Highway Commercial, Urban Transition, and Agriculture. The Urban Transition category is intended for land which is proposed for development in city general plans but which is currently in agricultural use. Its purpose is to encourage agricultural activities until development consistent with city general plans is proposed. The Specific Plan and County Plan designate identical areas for urban uses and are consistent in their designation of the northwest corner of Tegner and Fulkerth Roads for Agriculture.

The County Circulation Element defines a road classification system and includes policies on roadway service levels, congestion, and safety. The focus is on rural roads in the unincorporated area. The Plan defers to the cities and Congestion Management Agency (CMA) on level of service and congestion issues within city spheres of influence. Consequently, the county's standard of Level of Service (LOS) "C" is superseded by the CMA and City standard of LOS "D" for arterials and collectors.

Like the Land Use Element, the County Open Space and Conservation Element focuses on farmland conservation. Policy 9 discourages the division of land which supports the premature conversion of farmland. Again, the policy is aimed at rural areas outside City spheres of influence and is consistent with the Specific Plan. The Element also addresses air quality and promotes mass transit, bikeways, and other provisions to reduce vehicle miles travelled. The Specific Plan is consistent with and helps implement these objectives.

The Noise Element includes quantifiable standards for noise in unincorporated areas. It indicates that new industrial and commercial uses should not be permitted if they will cause noise levels to exceed 60 dB L_{dn}. This policy is intended to maintain quiet in rural areas and is not presumed to apply to urban growth areas within City spheres of influence. It is possible that development in the Specific Plan area would cause noise levels to exceed 60 dB L_{dn}. The Specific Plan is consistent with the County Plan's requirement that an acoustical analysis be performed in areas where increased noise levels may be an issue.

The Safety Element contains a series of policies to reduce exposure to natural hazards and disasters. These policies are followed by implementation measures, calling for street lighting, storm drainage, and fire walls within new development areas. The Specific Plan is consistent with the policies and implementation measures in the Element.

The County Housing Element promotes the provision of affordable housing for Stanislaus County residents. Its focus is on unincorporated communities, and it defers to the cities on most affordable housing and housing supply issues. The Specific Plan implements the County Plan objective of increasing housing opportunities for a wide range of income groups. By using a Master Environmental Impact Report, the Plan also fulfills the County's goal of reducing government constraints (environmental review) to housing development.

2.C. STANISLAUS COUNTY AGRICULTURAL ELEMENT

The Agricultural Element of the Stanislaus County General Plan was adopted in April, 1992 to pursue three primary goals: strengthening the agricultural sector, preserving agricultural lands, and protecting agricultural resources. The Element notes that agriculture is the County's leading industry and that the area's economic well-being depends on its continued presence. In addition to its emphasis on farmland protection, the Element promotes agricultural industry and related businesses within urban areas and the marketing and promotion of locally-grown farm commodities.

Like the County General Plan's other Elements, the Agricultural Element focuses on unincorporated areas beyond City spheres of influence. However, its promotion of agri-business within the cities could have implications for future land use within Turlock's Northwest Triangle, particularly given the existing concentration of heavy commercial uses along Golden State Boulevard. Development of additional agricultural businesses and support services (farm equipment dealers, irrigation suppliers, etc.) on Heavy Commercial parcels would help implement the Agricultural Element.

The Agricultural Element contains a series of policies to minimize agricultural-urban conflicts. It promotes the use of "Right to Farm" ordinances, a concept endorsed by the Specific Plan. It also promotes buffers between agricultural and non-agricultural uses, a concept endorsed by the Turlock General Plan and carried through in the Specific Plan to some degree by locating residential uses away from agriculture. Policies 1.11 and 1.12 in the County Agricultural Element recommend 100 foot setbacks for development adjoining agricultural lands and 300 to 500 foot buffers between farming and incompatible uses, including housing. The Element identifies industry, parks, and golf courses as typical buffer land uses. The Northwest Triangle Plan could potentially be inconsistent if the commercial uses west of Highway 99 conflict with adjacent farm operations. However, mitigation measures are included in the Specific Plan to reduce possible agricultural conflicts.

Under the first goal of strengthening agriculture, the Agricultural Element recommends the development of an agricultural technology center somewhere in Stanislaus County. Given its proximity to the County Fairgrounds and California State University Campus, commercially designated land within the Specific Plan area could be considered among candidate sites.

Under the second goal of preserving agricultural land, the Agricultural Element includes policies on farmland conversion to urban uses (Policies 2.3 through 2.7). The Specific Plan is generally consistent with these policies in that it promotes compact growth on land contiguous with an existing city. Although it converts farmland to urban uses, most of this land is already constrained by the presence of Highway 99, the railroad and urban encroachment on the south and east. This argument is more difficult to make west of Highway 99 where there are currently few impediments to farming. However, the Specific Plan promotes phased development so that the area west of Highway 99 can remain in production as long as possible. The discussion of alternatives in Section 4 of the EIR describes and evaluates an "Agriculture Protection" alternative that would strengthen policies to protect agriculture during the Specific Plan buildout period.

The Element identifies six criteria for converting farmland to urban uses, including consistency with the County General Plan, demonstrated need for the project based on population and employment projections, the availability of other feasible sites for the project, the extent of development pressure to be created on surrounding agricultural uses, the degree of conflict created with farming on surrounding areas, and the availability of infrastructure. The Element also recommends that general plan amendments which convert farmland to urban uses evaluate indirect as well as direct consequences on agriculture, and cumulative impacts as well as project impacts.

The Specific Plan generally meets the conversion criteria in the Element and includes measures to mitigate potential indirect agricultural impacts. Since the area was already designated for urban uses in the County General Plan, it does not propose any conversion of farmland beyond what was already presumed. It might be argued that the development of parcels west of Highway 99 would be inconsistent with the Agricultural Element, since there could be potential indirect impacts on farmland west of Turlock. These impacts can be avoided, at least temporarily, if the parcels are developed only after land east of the Highway is substantially built out. When the area west of Highway 99 is developed, off-site impacts can be mitigated by buffering surrounding agricultural operations.

The third goal of the Element, protection of the natural resources that sustain agriculture, focuses on air quality, water quality, and soil conservation. The policies are targeted towards rural areas beyond City spheres of influence and are consistent with the principles in Chapter 6 of the Specific Plan.

2.D. STANISLAUS COUNTY CONGESTION MANAGEMENT PROGRAM

This transportation planning document was prepared in 1992 to satisfy the requirements of Assembly Bill 471 (enabling urban areas to qualify for State Proposition 111 funds). The Congestion Management Program (CMP) contains level of service (LOS) standards for major roadways and public transit, a trip reduction and travel demand element that promotes alternatives to single passenger auto use, a strategy for analyzing the traffic impacts of land use decisions, and a 7-year capital improvement program. The capital improvements are designed to correct deficiencies on segments of state highways and principal arterials which do not currently meet the LOS standards or which are projected to fall below these standards due to future growth.

The Plan identifies a minimum LOS of "D" on state highways and arterials within City spheres of influence. This is consistent with Turlock General Plan policy, as well as the principles in the Northwest Triangle Specific Plan. LOS D has been used as the design criteria for streets and intersections within the Specific Plan area. The CMP also includes a standard to keep urban neighborhoods transit-accessible; its target is to keep 70 percent of all dwelling units in Stanislaus County's urban areas within one-quarter mile of fixed route transit or door-to-door demand responsive transit. The residential areas within the Northwest Triangle will meet the latter criteria and may meet the former criteria when fixed route transit is established in Turlock some time in the future, as is called for in the General Plan.

The CMP defines a methodology for calculating the traffic impacts of development projects, incorporating subarea population and employment projections and a presumed future roadway network. The CMP requires local government traffic models and analyses to be consistent with this methodology. This requirement has been followed by the City of Turlock in the development of its traffic model, which in turn has been used to test the traffic impacts of the Specific Plan.

The CMP also sets a threshold for local project review by the Stanislaus County Congestion Management Agency (CMA). General plan amendments (GPA) generating 1,000 daily trips or more require CMA review. The CMP requires that a Deficiency Plan be prepared when any segment of the arterial and highway network will fall below the adopted LOS as a result of a particular project or GPA. A menu of mitigation measures (lane additions, turning lanes, signals, transportation systems management, etc.) are identified. In Turlock's Northwest Triangle, measures to maintain LOS D have already been incorporated, in the form of planned road and intersection improvements. Although a GPA is required for the Specific Plan, its net effect on traffic projections will be minor since the area was already designated for urban uses in the City and County General Plans.

The CMP includes a number of special requirements for local governments, including the adoption of a traffic analysis program to assess land use changes (mandated by Government Code 65089.3) and the adoption of a trip reduction ordinance (to comply with the Air Pollution Control District's rule). Although Turlock has yet to adopt a Trip Reduction Ordinance, the Northwest Triangle Specific Plan does include principles supporting trip reduction, like bicycle lanes, carpooling, and mixed land uses.

A Capital Improvement Program within the CMP identifies a seven-year list of projects to maintain roadway service levels and improve transit in Stanislaus County. The only project specifically mentioned in the Northwest Triangle is the widening of Monte Vista from two lanes to four lanes east of Route 99. Additional capital improvements within the Specific Plan area are planned to keep this road segment operating at LOS D or better after the area is fully developed.

2.E. AIR QUALITY ATTAINMENT PROGRAMS

2.E.1. 1991 Air Quality Plan

The Air Quality Plan was adopted in 1992 by the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD). The Plan describes the current air quality environment in the region, identifies state and federal air quality mandates, inventories all emission sources, and includes programs to control stationary source and indirect source emissions. The Plan forecasts future air quality conditions and concludes with an implementation program which identifies responsible agencies, progress report requirements, monitoring, and contingency strategies.

The regional air quality plans are based on population projections for each county in the air basin. Each regional air plan has assumed and accounts for an incremental amount of growth within Stanislaus County, and if actual population exceeds this assumed increment, additional control measures will be required to attain the ambient air quality standards.

The population and traffic effects of the proposed Specific Plan are consistent with those contained in the Stanislaus Area Association of Governments (SAAG) Draft 1993 Regional Transportation Plan and thus should be consistent with federally-mandated regional air plans. The state-mandated plan, however, is based on an explicit forecast of population and employment within Stanislaus County over the period 1990 to 2000. The population growth rates assumed in analyzing the effects of the Northwest Triangle Specific Plan are below those assumed in the 1991 Air Quality Attainment Plan, so the project appears to be consistent with regional air plans relative to assumptions about levels of future growth and activity.

The basic goal of the Plan is to bring the San Joaquin Valley Air Basin into compliance with State standards for ozone and carbon monoxide. Control measures for 46 kinds of stationary sources are included, from traditional "smokestack" emissions and oil and gas operations to less conventional sources such as charbroilers in fast food restaurants, residential and commercial water heaters, graphic art processes, printing, fireplaces, and wood burning stoves. These controls may affect some of the existing manufacturing operations in the Specific Plan area by requiring that they be retrofitted with "Best Available Control Retrofit Technology" (BACRT).

The Plan requires no net increase from stationary sources subject to Air District approval. This is unlikely to affect the mix of uses allowed in the Specific Plan area, but it would require the application of BACRT for new operations like service stations, dry cleaners, restaurants, and printers. However, these requirements will affect new businesses throughout the entire San Joaquin Valley and are not targeted towards a particular area like the Northwest Triangle. In

residential areas, new wood stoves and fireplaces will be continue to be subject to EPA restrictions.

The Air Quality Plan's greatest impacts on the Northwest Triangle pertain to mobile source emission control measures. These include enhanced participation of the Air Pollution Control District in project review under CEQA and a long menu of transportation control measures to reduce motor vehicle emissions. The Specific Plan incorporates many of these measures in its composition of land uses (Chapter 2) and its Transportation Principles (Chapter 3). The Triangle's mixing of residential and employment uses encourage shorter trip lengths, while its provisions for bicycles and pedestrians reduce dependence on automobiles. Principles in the Plan support ride sharing and flextime to reduce peak hour traffic.

Some of the other transportation control measures in the Air Quality Plan are not included in the Specific Plan and still need to be implemented at the citywide (or intercity) level. These include adoption of a Trip Reduction Ordinance, development of park and ride lots, and provision of fixed-route public transit service.

While the Plan has not been comprehensively updated since 1991, it has been supplemented during the past three years with additional plans and programs. To fulfill their obligation to State and Federal Clean Air Acts, the SJVUAPCD adopted "Rate of Progress Plans" for attainment of federal ozone standards for the periods 1993-1996 and Post-1996. The plans are required to show the region's progress towards meeting the federal ozone standard by 1999. A revised State Implementation Program (SIP) also was submitted during this period. These supplements do not change the conclusion that the Specific Plan is consistent with regional air quality programs.

2.E.2. Regulation VIII: Fine Particulate Matter (PM_{10}) Control Requirements

Regulation VIII (consisting of Rules 8010, 8020, 8030, 8040, 8060, and 8070) were adopted by the Air Pollution Control District on October 21, 1993 to reduce the amount of fugitive dust in the air through regionwide controls on construction, demolition, excavation, grading, chemical applications, road paving, handling and storage of bulk materials, and landfill disposal. The controls apply to most construction sites of one acre or larger, and to roads with average daily trips of 500 or more.

Regulation VIII requires that construction and grading in the Northwest Triangle area, as well as all areas in the San Joaquin Valley Air Basin, follow specific practices and procedures to stabilize soil, cover bulk materials, and suppress dust. The Regulation requires that roads in the Triangle area are paved and contain paved four-foot shoulders or medians. The Specific Plan is consistent with Regulation VIII; Chapter 6 includes principles to reduce PM_{10} emissions.

In 1993, the San Joaquin Valley was reclassified from a "moderate" to a "serious" non-attainment area for PM_{10}. Regulation VIII may be strengthened with additional requirements for construction and new restrictions on wood burning stoves and fireplaces. Development in the Specific Plan area will be required to comply with any future requirements as they are adopted.

3. ENVIRONMENTAL SETTING, IMPACT ANALYSIS, AND MITIGATION

3.A. IMPACTS FOUND NOT TO BE SIGNIFICANT

This section briefly inventories those impact areas and resources which are judged not to have the potential to experience significant adverse impacts as a result of the project, so are not analyzed in detail in this document. Sources of information for these judgements include the September 1992 Master Environmental Assessment and Draft Environmental Impact Report on the Turlock General Plan, the March 8, 1994 Notice of Preparation of this MEIR, and information gathered during the course of Specific Plan preparation. Also taken into consideration are the significance thresholds suggested by Appendix G of the CEQA Guidelines.

This section evaluates project-level impacts. Some of the topics listed below are discussed also in the cumulative impact analysis in Section 5.

3.A.1 Earth/Geology

There are no major geologic or seismic hazards that would either be exacerbated by development in the project area, or which would pose significant hazards to persons living or working in the project area. Specific mitigation measures related to construction projects will be imposed as part of the subdivision / construction approval process.

3.A.2 Water

Impacts on water resources are compared to the impacts of the current mix of urban and agricultural uses on water resources. Water use and use of chemicals that might affect water quality is not expected to change in already-urbanized parts of the study area as a result of adoption of the Specific Plan. In those portions of the Northwest Triangle in agricultural use in 1994 that are designated for urban uses, several changes will occur. First, application of agricultural chemicals will cease, and be replaced by use of a wide spectrum of chemicals in regular use in urban environments. Second, the decrease in irrigated area will decrease the amount of recharge of irrigation into the aquifer that supplies the City's water. Given the relatively small area over which these changes will occur (compared to the total acreage in agricultural use within the City's Planning Area), the impact on these changes is not judged to be significant.

Specific Plan principles address needs for new infrastructure for water distribution, sewage collection, and storm drainage. The Specific Plan establishes an implementation program and a mechanism for property owner participation in funding these improvements.

3.A.3 Vegetation and Wildlife

No plant or animal species or communities of special concern have been identified in the Specific Plan area. The long history of cultivation has resulted in an absence of native vegetation, and the absence of watercourses or topographic features contributes to a lack of distinctive habitat. While development consistent with Specific Plan policies will obviously result in a change in the vegetation pattern, it is not judged to be significant

3.A.4 Land Use

One of the central aspects of the Specific Plan is to facilitate land use changes. The Project Description as well as material in the Specific Plan quantify the extent of those changes. Land use changes will result in activities that will have significant environmental impacts in relation to traffic, air quality, noise and agricultural productivity. These impacts are considered in separate subsections below. Land use change *per se* does not cause adverse environmental impacts.

3.A.5 Population

Population increase will be one consequence of the project's implementation. However, like land use changes, population increase in and of itself does not create significant adverse impacts on the environment. It is the activities of area residents that cause impacts. These are discussed in subsequent sections of the EIR.

3.A.6 Housing

The Specific Plan envisions the construction of approximately 600 housing units in the Northwest Triangle as detailed in Table 1-2. These housing units are consistent with General Plan policies, which seek to satisfy regional housing needs through addition and renovation of housing units in the City. An additional consequence of Specific Plan implementation may be demolition by property owners of a small number of units (fewer than five) due to the increased development densities allowable on the east side of Golden State Boulevard.

3.A.7 Visual Impacts

Buildout of the Northwest Triangle will result in a major change in the visual environment. Urban design guidelines included in the Plan are intended to insure a high quality visual environment. While evaluation of visual impacts is subjective, there is no indication that the changes envisioned by the Specific Plan would be widely considered to constitute significant adverse impacts on the visual environment.

3.A.8 Public Services and Utilities

Public services and utilities are analyzed in chapters 4 and 5 of the Specific Plan, with implementation discussed in Chapter 7. Specific Plan buildout will result in significantly increased demand for public services and utilities. These demands can be met with implementation of funding mechanisms and capital projects described in the Plan, and no significant impacts are anticipated.

3.B. TRAFFIC AND CIRCULATION

3.B.1. EXISTING SETTING

a. Roadway Network. The roadway network providing access to and circulation through the area is shown in Figure 4. Primary roadways providing access to the area are present at some level. However, most will need to be widened or further improved as the City continues to build out in accordance with the General Plan and the Specific Plan. A number of secondary roadways which will provide circulation through the area are included in the Specific Plan and will be constructed as the area is built out.

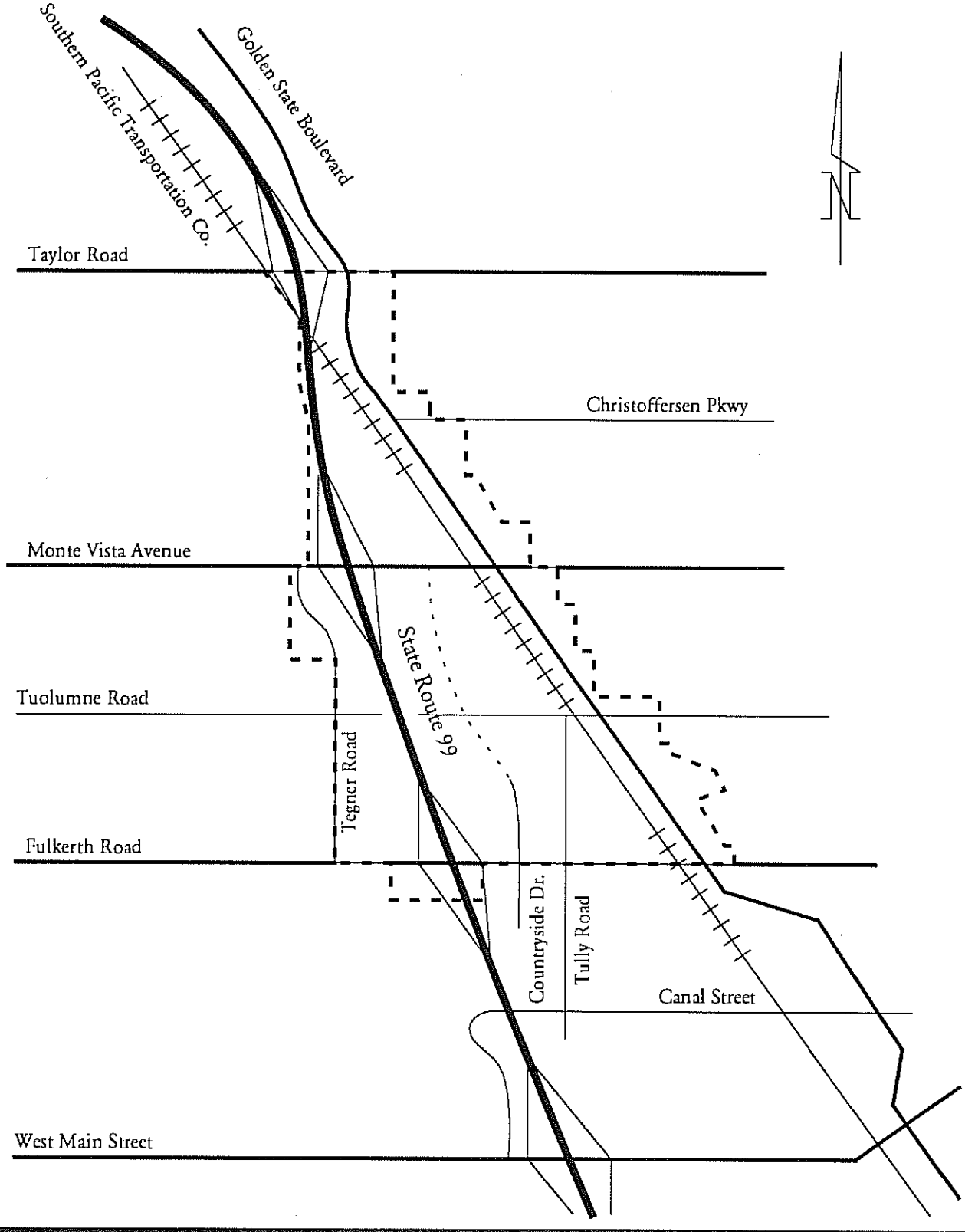
Regional Access is provided to the project area and the rest of Turlock by State Route 99 (SR 99). SR 99 is a major regional arterial which extends north and south through the central part of the San Joaquin Valley. It extends northerly through the cities of Ceres, Modesto, and Sacramento into the northern end of the State and southerly through the cities of Merced, Fresno, and Bakersfield into Southern California. SR 99 is fully improved to freeway status through Turlock with three lanes in each direction. There are grade-separated interchanges at Taylor Road, Monte Vista Avenue, Fulkerth Road, and Main Street as indicated in Figure 4. Currently, the intersections of the north and southbound SR 99 ramps with Taylor Road, Monte Vista Avenue, Fulkerth Road, and Main Street are all controlled with stop signs on the off-ramps. The interchanges at Taylor Road, Monte Vista Avenue and Fulkerth Road are the primary points of access from SR 99 to the Specific Plan area.

Local Access to, and circulation through, the project area is provided by a hierarchy of roadways. Golden State Boulevard, a major arterial serving the study area, runs diagonally in the northwest/southeast direction across the city. It is primarily a four-lane facility with the exception of a five-lane section between Fulkerth Road and Walnut Avenue.

Taylor Road is a two-lane east/west arterial extending along the northern boundary of the study area.

Monte Vista Avenue is an east/west arterial extending across the middle of the study area. It carries two lanes from Highway 99 to approximately 500 feet west of Walnut Avenue where it widens to three lanes (two lanes eastbound and one lane westbound) up to Crowell Road. From Crowell Road to the east, it becomes a four-lane arterial.

Tuolumne Road is a minor two-lane east/west arterial south of Monte Vista Avenue terminating at Golden State Boulevard.



ROADWAY NETWORK

PROJ. NO.: 93-608

THE WILSON ENGINEERING COMPANY

DATE: 12/1/93

SCALE: N.T.S.

FIGURE NO. 4

Fulkerth Road is another major east/west arterial at the southern boundary of the study area. It has an interchange with Highway 99 and is primarily a four-lane roadway with the exception of a two-lane section under the bridge of Highway 99.

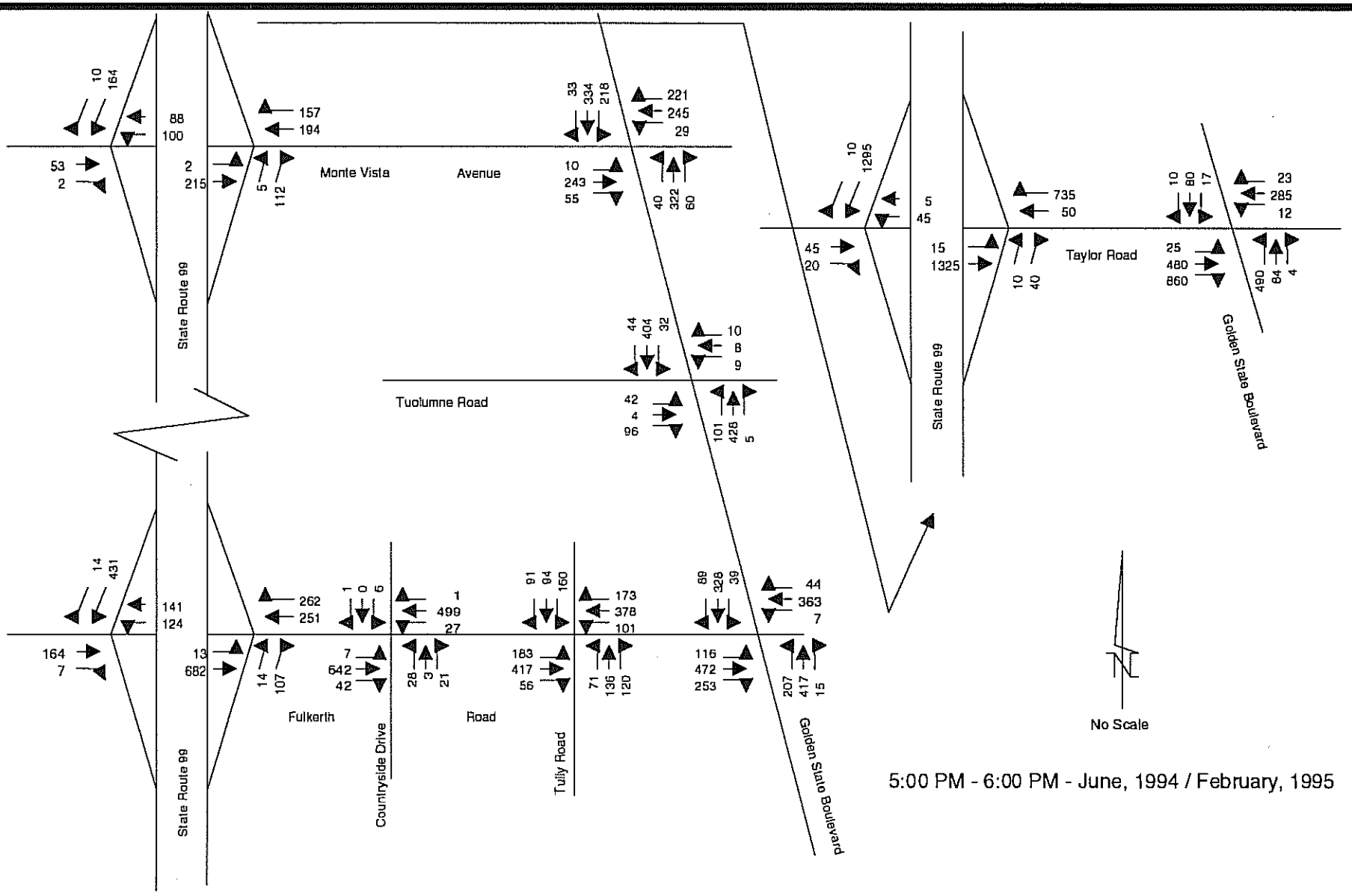
West Main Street is south of the study area. It is a major east/west arterial carrying two lanes west of Kilroy Road, four lanes from Kilroy Road to West Avenue, and two lanes east of West Avenue. It also provides an interchange with Highway 99.

Geer Road is the only major north/south arterial to the east of the study area. From Taylor Road to Monte Vista Avenue, it carries two or three lanes of traffic. South of Monte Vista Avenue, it becomes a four-lane facility.

Tegner Road, Tully Road, Walnut Avenue, and Crowell Road are minor north/south roadways serving the study area. They are all two-lane facilities.

b. Roadway Operating Characteristics Currently, most roadways within the Specific Plan area accommodate traffic volumes below capacity and operate well at most times. Typical weekday daily traffic volumes on select roadways within the Specific Plan area, together with their classification in the General Plan and approximate daily capacity, are summarized in Table 3-1. Monte Vista currently accommodates a two-way daily volume of approximately 12,000 vehicles, Golden State accommodates between 11,000 and 20,000 vehicles, Fulkerth Road accommodates between 8,000 and 12,000 vehicles per day, and Tully Road accommodates approximately 3,100 vehicles per day. SR 99 currently carries a two-way, average daily traffic (ADT) volume of approximately 54,000 vehicles between Monte Vista Avenue and Fulkerth Road (CALTRANS, 1993).

Existing roadway and intersection operations can be further characterized using a level of service (LOS) analysis. An LOS analysis describes a roadway segment or intersection's operating characteristics based upon maneuverability and delay. Level of Service ranges from LOS A, which represents the best possible conditions (free flow) to LOS F, which describes the worst case or jammed conditions. The analysis of existing conditions focused on key intersections in the Plan area which determine the overall network capacity. Existing weekday PM peak hour traffic volumes at the key intersections are shown in Figure 5. Signalized intersections were evaluated using methods described in the Interim Materials on Highway Capacity, Circular 212. Unsignalized intersections were evaluated using methodologies described in the Highway Capacity Manual. Descriptions of potential LOS for signalized intersections are summarized in Table 3-2. Standards for level of service descriptions of unsignalized intersections are summarized in Table 3-3. The results of the peak hour intersection LOS analysis of existing conditions are summarized in Table 3-4.



THE WILSON ENGINEERING COMPANY	Existing 1994/ 1995 P.M. Peak Hour Traffic Volumes	PROJ. NO.: 94-616 DATE: 2/27/95	FIGURE NO. 5

TABLE 3-1
ROADWAY SEGMENTS, EXISTING CONDITIONS

Roadway Segment	Limits	Type	Daily Two-Way Traffic Volume	Approx. Capacity	LOS
Monte Vista	Golden State - Walnut	Arterial	12,250	27,000	A
Golden State Blvd.	Walnut - Tuolumne	Express	10,900	37,000	A
	Fulkerth - 20th Century	Express	19,300	37,000	A
Fulkerth Road	Tully - Countryside	Arterial	11,500	27,000	A
	Tully - Logan	Arterial	8,000	27,000	A
Tully Road	Main - Walnut	Collector	3,110	12,000	A
SR 99	Main - Fulkerth	Freeway	54,000	120,000	B

Source: City of Turlock, 1993, 1994

TABLE 3-2
DESCRIPTION OF LEVELS OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of Service	Description	Volume/ Capacity Ratio	Stopped Delay/Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	$\leq$ 0.599	< 5.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	0.600 to 0.699	5.1 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	0.700 to 0.799	15.1 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	0.800 to 0.899	25.1 to 40.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	0.900 to 0.999	40.1 to 60.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	$\geq$ 1.000	> 60.0

Source: Transportation Research Board, 1981, 1985

TABLE 3-3
DESCRIPTION OF LEVELS OF SERVICE FOR UNSIGNALIZED INTERSECTIONS

	Two-Way Stop Control
Level of Service	**Reserve Capacity**
A	> 400 veh./hr.
B	300-399
C	299-299
D	199-199
E	0-99
F	< 0

Source: Transportation Research Board, 1985.

TABLE 3-4
EXISTING AND CUMULATIVE YEAR 2010 PM PEAK HOUR LEVELS OF SERVICE

Intersection	Existing Conditions			Cumulative Year 2010 (1)		
	R-C (2)	V/C (3)	LOS	R-C (2)	V/C (3)	LOS
Taylor/ SR 99 SB Ramps (4)		N/A		N/A	0.86	D
Eastbound Taylor	43		E			
Westbound Taylor Left Turns	(-10)		F			
Westbound Taylor Through						
Taylor/ SR 99 NB Ramps (4)		N/A		N/A	0.86	D
Northbound Off-ramp Left Turns	50		E			
Northbound Off-ramp Right Turns	681		A			
Eastbound Left Turns						
Taylor Road/ Golden State (4)	N/A	0.62	B	N/A	0.86	D
Monte Vista/ SR 99 SB Ramps		N/A		N/A	0.67	B
Southbound Off-ramp	403		A			
Westbound Left Turns	933		A			
Monte Vista/ SR 99 NB Ramps		N/A		N/A	0.68	B
Northbound Off-ramp	404		A			
Eastbound Left Turns	883		A			
Monte Vista/ Countryside	Future Intersection			N/A	0.79	C
Monte Vista/ Golden State	(5)	N/A	D	N/A	0.79	C
Tuolumne/ Countryside	Future Intersection			N/A	0.67	B

TABLE 3-4
EXISTING AND CUMULATIVE YEAR 2010 PM PEAK HOUR LEVELS OF SERVICE

Intersection	Existing Conditions			Cumulative Year 2010 (1)		
	R-C (2)	V/C (3)	LOS	R-C (2)	V/C (3)	LOS
Tuolumne/ Golden State				N/A	0.45	A
Northbound Left Turns	776	N/A	A			
Eastbound Approach	393		B			
Southbound Left Turns	833		A			
Westbound Approach	351		B			
Fulkerth/ SR 99 SB Ramps		N/A		N/A	0.78	C
Southbound Off-ramp	151		D			
Westbound Left Turns	886		A			
Fulkerth/ SR 99 NB Ramps		N/A		N/A	0.81	D
Northbound Off-ramp	280		C			
Eastbound Left Turns	905		A			
Fulkerth/ Countryside	N/A	0.27	A	N/A	0.79	C
Fulkerth/ Tully	N/A	0.64	A	N/A	0.87	D
Fulkerth/ Golden State	N/A	0.54	A	N/A	0.85	D

(1) Year 2010 conditions assumes buildout of the remainder of the city in accordance with the city's General Plan
(2) Reserve Capacity in vehicles per hour at a two-way stop controlled intersection
(3) Volume to Capacity ratio at a signalized intersection
(4) The intersections of Taylor Road with the SR 99 north and southbound ramps and Golden State Boulevard were analyzed as a whole under cumulative conditions because of their close proximity and future interconnected signalization. Cumulative traffic forecasts at this location assume completion of Christoffersen Parkway.
(5) This intersection is currently controlled with all-way stop signs

Table 3-1 shows that all the roadway segments listed currently accommodate daily traffic volumes considerably below capacity. The segments of Monte Vista Avenue, Golden State Boulevard, Fulkerth Road, Tully Road, and SR 99 listed in Table 3-1 all experience daily traffic volumes below capacity and operate at LOS A/B.

A total of twelve study intersections were evaluated with regard to levels of operation during the weekday PM peak hour. They are:

1. Highway 99 Southbound On-/Off-Ramps and Taylor Road (unsignalized)
2. Highway 99 Northbound On-/Off-Ramps and Taylor Road (unsignalized)
3. Taylor Road and Golden State Boulevard (signalized)
4. Highway 99 Southbound On-/Off-Ramps and Monte Vista Avenue (unsignalized)
5. Highway 99 Northbound On-/Off-Ramps and Monte Vista Avenue (unsignalized)
6. Monte Vista Avenue and Golden State Boulevard (unsignalized)
7. Golden State Boulevard and Tuolumne Road (unsignalized)
8. Highway 99 Southbound On-/Off-Ramps and Fulkerth Road (unsignalized)
9. Highway 99 Northbound On-/Off-Ramps and Fulkerth Road (unsignalized)
10. Fulkerth Road and Countryside Drive (signalized)
11. Fulkerth Road and Tully Road (signalized)
12. Fulkerth Road and Golden State Boulevard (signalized).

Table 3-4 indicates that all of the study intersections are currently operating at LOS D or better during peak periods except the intersections of Taylor Road with the Highway 99 north and southbound ramps. Minor stop sign controlled approaches at both ramp junctures operate at an LOS E/F because of the high volume of traffic oriented from the southbound off-ramp to southbound Golden State Boulevard. Analysis based upon LOS calculation methodologies included in the 1985 Highway Capacity Manual would conclude that the four-way stop intersection at Monte Vista Avenue and Golden State Boulevard is operating at a high LOS C. However, because of the interference of the railroad tracks and the awkward and inferior intersection channelizations, this intersection is actually operating at a high LOS D.

Because of the storage area along the median opening on Golden State Boulevard at Tuolumne Road, left-turning vehicles from both approaches of Tuolumne Road complete turns in two stages. This greatly enhances the level of operation for left turns from the minor street. Without the median storage area, the left turns from Tuolumne Road would operate at LOS D. However, with the median storage area, the operation of the left turns from Tuolumne Road is at LOS C.

SR 99 is currently improved to six lane freeway status in the Plan area. Using 1993 daily traffic volumes published by Caltrans and the assumptions of a 10 percent peak-hour factor with a 60/40 directional split, the estimated peak-hour volume in the peak direction on Highway 99 in the vicinity of the Plan area is 3,250. This peak-hour volume is approximately 50 percent of the one-way capacity (i.e., 6,000 vehicles per hour) of a six-lane freeway indicating that Highway 99 currently operates at acceptable standards in the project vicinity. The County's Congestion Management Program indicates this section of freeway currently operates at an LOS B during peak hour conditions.

c. Signal Warrant Analysis (Peak Hour). The eight unsignalized intersections were evaluated with regard to peak hour signal warrants to determine whether existing traffic volumes are sufficient to warrant the installation of signal controls. The results of the evaluation are summarized in Table 3-5, which indicates that the only unsignalized intersection that currently meets the "Peak-Hour Signal Warrant" is Monte Vista Avenue and Golden State Boulevard. This four-way stop-controlled intersection is currently operating at LOS D with delays experienced by vehicles at all four approaches. Because of the location of the railroad tracks and the poor existing intersection layout, signal control at this intersection will require redesign of the entire intersection.

d. Transit, Bicycle, and Pedestrian Facilities. The City of Turlock is currently served by a dial-a-ride demand-responsive transit system. It provides door-to-door service on demand from 7:00 AM to 6:00 PM on weekdays and from 9:00 AM to 4:00 PM on Saturdays. No service is provided on Sundays.

3.B.2. CRITERIA FOR DETERMINING SIGNIFICANCE OF IMPACTS

In accordance with County Congestion Management Program and City of Turlock guidelines, adverse impacts of the Northwest Triangle Specific Plan to the circulation system are determined to be significant if the project will:

a. Cause an increase in traffic which will reduce levels of service (LOS) on the system of roads designated in the County's Congestion Management Plan to below an LOS D (Stanislaus County Congestion Management Program).

b. Cause an increase in traffic which will reduce future LOS for roadways forecast in the City's Circulation Element to operate at an LOS D to below an LOS D (these roads are Monte Vista Avenue, Fulkerth Road, and Golden State Boulevard) (Turlock General Plan Circulation Element 1992).

c. Cause an increase in traffic which will reduce levels of service (LOS) to below LOS C on Specific Plan area roads other than Monte Vista Avenue, Fulkerth Road, and Golden State Boulevard (Turlock Circulation Element 1992).

3.B.3. IMPACTS

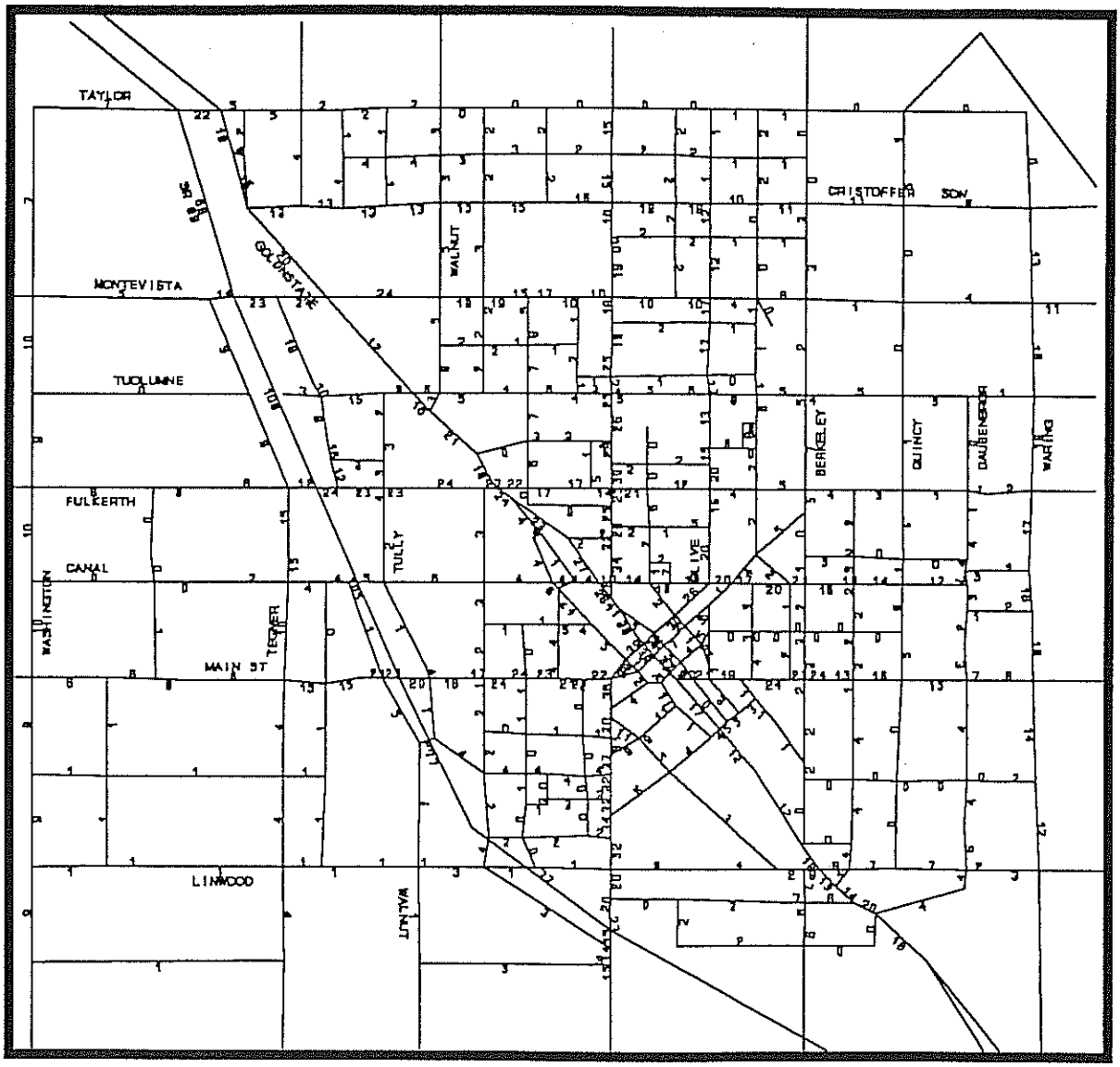
a. Overview of Impacts. The proposed Specific Plan does not alter General Plan land uses in a way that allows intensification of development or trip generation increases above that assumed in the General Plan. The project would result in a level of trip generation that is consistent with the trip generation assumptions made in analysis of the City's 1992 General Plan. By further refining required improvements, identifying funding responsibilities, and creating a basis for areawide financing, the project will facilitate construction of improvements needed to allow the roadway network to accommodate future increases in traffic associated with development in the Specific Plan area and in the City as a whole. The Specific Plan includes a series of roadway improvements designed to help the roadway network accommodate future increases in traffic volumes.

Continued buildout of the city in accordance with the General Plan is forecast to result in a significant increase in traffic volumes on the local roadway network. Future traffic related impacts of buildout were evaluated as part of the recent General Plan update (City of Turlock, 1992). The General Plan update and accompanying EIR included a comprehensive traffic modelling effort using the Stanislaus Area Association of Governments (SAAG) traffic model (Dowling Associates, 1992). Traffic forecasts were developed using the model for a Horizon Year of 2010, consistent with the General Plan. The model estimated average daily, two-way traffic volumes on the local roadway network. Forecasts of future Year 2010 traffic volumes on the roadway network within Turlock are summarized in Figure 6. For the purposes of this EIR, the average daily traffic volumes forecast during the General Plan analysis have been converted to peak hour intersection analysis to better analyze road improvement needs.

TABLE 3-5
PEAK HOUR SIGNAL WARRANTS

Intersection	Are Signals Warranted ? (1)	
	Existing Conditions	Cumulative Conditions
Highway 99 SB On-/Off-Ramps and Taylor Road	No	Yes
Highway 99 NB On-/Off-Ramps and Taylor Road	No	Yes
Highway 99 SB On-/Off-Ramps and Monte Vista Avenue	No	Yes
Highway 99 NB On-/Off-Ramps and Monte Vista Avenue	No	Yes
Monte Vista Avenue and Golden Gate Boulevard	Yes	Yes
Golden State Boulevard and Tuolumne Road	No	Yes
Highway 99 SB On-/Off-Ramps and Fulkerth Road	No	Yes
Highway 99 NB On-/Off-Ramps and Fulkerth Road	No	Yes

(1) CALTRANS Warrant 11



Source: Dowling Associates, 1992

Year 2010 Average Daily Traffic (In Thousands)	PROJ. NO.: 93-608	
THE WILSON ENGINEERING COMPANY	DATE: 12/1/93	FIGURE NO. 6
	SCALE: N.T.S.	

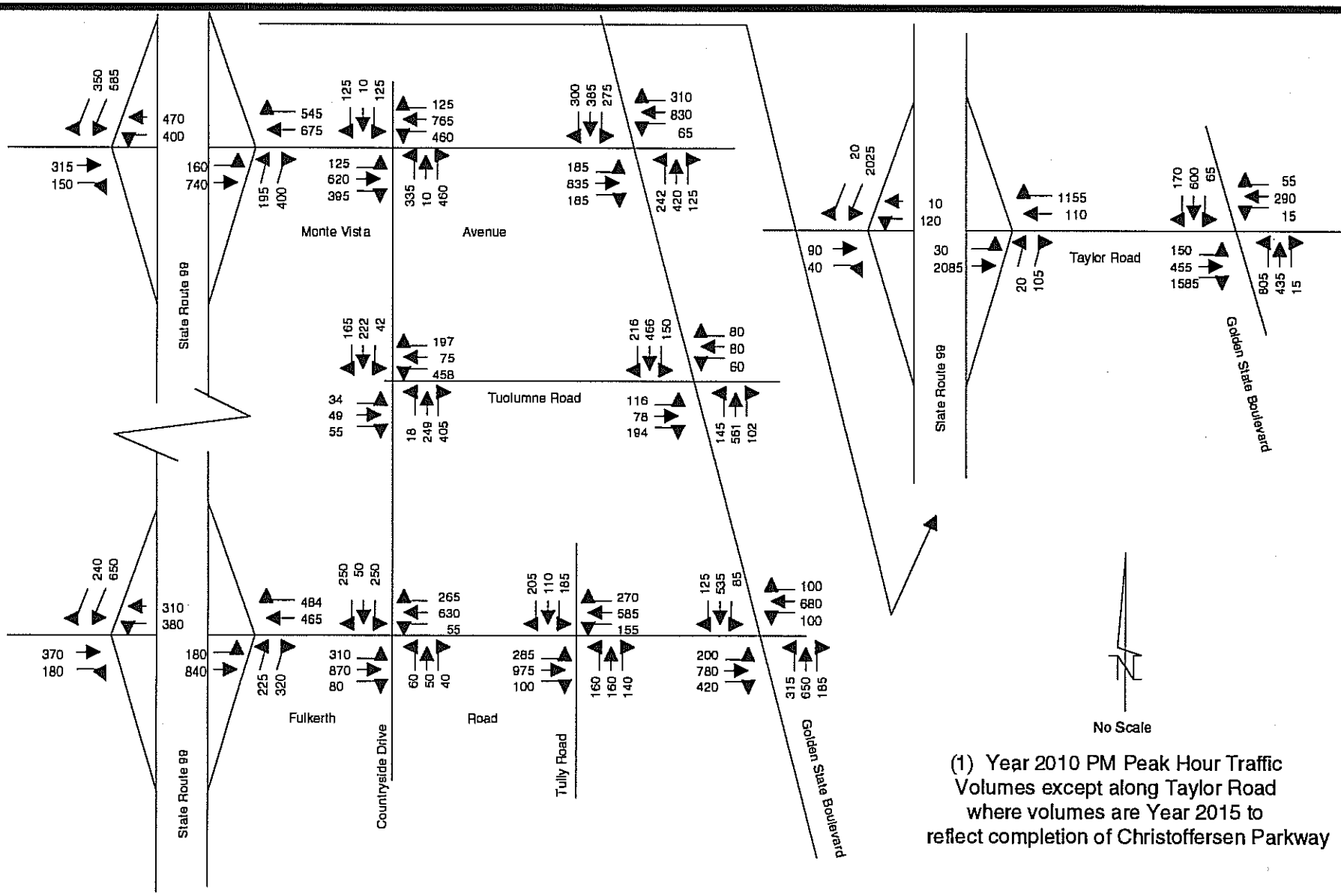
b. Roadway Improvements included in the Specific Plan. The proposed Specific Plan includes a number of roadway improvements consistent with the Circulation Element of the City's General Plan. The improvements are summarized in Table 1-4 in the Project Description. Proposed improvements include completion of Fulkerth Road and Monte Vista Avenue as four lane arterials, Countryside Drive as a four lane collector and Tuolumne Road as a two lane collector with the ability to be re-striped with four lanes in the future if needed. It also includes signalization of the intersections of Taylor Road with the SR 99 ramp junctures, signalization of the intersections of Monte Vista Avenue with the SR 99 ramp junctures, Countryside Drive, and Golden State Boulevard; signalization of the intersections of Tuolumne Road with Countryside Drive and Golden State Boulevard; and signalization of the intersections of Fulkerth Road with the SR 99 ramp junctures. The Plan also includes guidelines with regard to roadway design standards in terms of right of way widths, sidewalks, bike lanes, and access restrictions.

c. Roadway Operating Characteristics. As stated above, the Specific Plan, as currently proposed, will not increase traffic volumes on the surrounding roadway network beyond those anticipated in the 1992 General Plan. The Specific Plan includes a series of roadway improvement measures designed to allow the roadway network to accommodate future traffic demand as the City is built out in accordance with the General Plan. Roadway improvements in the Specific Plan will have a beneficial impact of helping the roadway network accommodate future increases in traffic associated with the General Plan.

The following discussion describes traffic volumes associated with future growth in accordance with the Specific Plan and the General Plan. It evaluates the ability of the future roadway network included in the Specific Plan to accommodate cumulative Year 2010 traffic volumes using a PM peak hour LOS analysis in order to refine future roadway and intersection needs. It identifies any areas of potential traffic congestion and describes traffic related improvements included in the Specific Plan which are designed to minimize future congestion levels.

Estimates of future Year 2010 traffic PM peak hour traffic volumes at the previously identified twelve key intersections in the project area were developed using the modelled traffic volumes shown in Figure 7. The cumulative PM peak hour traffic volumes at the key intersections assume peak hour volumes are 9.18 percent of daily volumes based upon existing counts throughout the Plan area. The analysis assumes future traffic volumes associated with buildout of the City as well as roadway improvements included in the Specific Plan. The results of the LOS analysis for cumulative Year 2010 PM peak hour conditions are summarized in Table 3-4.

Review of Table 3-4 indicates that all intersections evaluated in the Plan area are forecast to operate at LOS D or better during PM peak hour or worst case conditions. Because the analysis is based on the cumulative condition analyzed in the General Plan, these intersection evaluations



(1) Year 2010 PM Peak Hour Traffic Volumes except along Taylor Road where volumes are Year 2015 to reflect completion of Christoffersen Parkway

THE WILSON ENGINEERING COMPANY	Year 2010 PM Peak Hour Traffic Volumes (1)	PROJ. NO.: 94-616 DATE: 2/27/95	FIGURE NO. 7

actually describe a level of traffic significantly higher than the volumes that would be generated by development in the Specific Plan only. The absence of violation of standards even when the cumulative condition is analyzed provides a clear indication that project level traffic, when forecast to use the improved road network described in the Specific Plan and the General Plan, will not create any significant adverse impacts on road operations.

The intersections of Taylor Road with the north and southbound SR 99 ramps and Golden State Boulevard, are all forecast to operate at LOS D. The intersections of Monte Vista Avenue with the SR 99 north and southbound ramps are forecast to operate at LOS B. The intersections of Monte Vista Avenue with Countryside Drive (future) and Golden State are forecast to operate at LOS C. The intersections of Tuolumne with Countryside Drive (future) and Golden State are forecast to operate at LOS B and LOS A respectively. The intersection of Fulkerth Road with the north and southbound SR 99 ramps, Countryside Drive, Tully Road, and Golden State Boulevard, are all forecast to operate at LOS C/D during weekday evening peak hour or worst case conditions.

SR 99 is forecast to operate at an LOS C between West Main Street and Taylor Road in the Year 2005 (SAAG, 1994)

3.B.4. MITIGATION

No significant impacts are identified, therefore no mitigation measures are warranted.

3.C. AIR QUALITY

3.C.1. ENVIRONMENTAL SETTING

a. Air Basin Characteristics. The climate of the project area is typical of inland valleys in California, with hot dry summers and cool, mild winters. Daytime temperatures in the summer often exceed 100 degrees, with lows in the 60's. In winter, daytime temperatures are usually in the 50's, with lows around 35 degrees. Radiation fog is common in the winter, and may persist for days. Winds are predominantly up-valley (from the north) in all seasons, but more so in the summer and spring months. Winds in the fall and winter are generally lighter and more variable in direction (CARB, 1974).

The pollution potential of the San Joaquin Valley is very high. Surrounding elevated terrain in conjunction with temperature inversions frequently restrict lateral and vertical dilution of pollutants. Abundant sunshine and warm temperatures in summer are ideal conditions for the formation of photochemical oxidant, and the Valley is a frequent scene of photochemical pollution.

b. Air Quality Standards and Pollutant Characteristics. The Environmental Protection Agency has set national ambient air quality standards for pollutants determined to be injurious to public health or welfare. There are both primary and secondary ambient air quality standards. Primary standards are designed to protect public health, with a margin of safety. Secondary standards are designed to protect public welfare, in addition to health, and are therefore more stringent than primary standards.

States may adopt more stringent standards than those required by the federal government. The State of California has established health-based ambient air quality standards which are more stringent than the federal standards.

Federal and state standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulates (PM-10) and lead. California has also set standards for pollutants not covered by national standards (sulfates, hydrogen sulfide, vinyl chloride, visibility reducing particles). The state and federal primary standards for major pollutants are shown in Table 3-6.

c. Health Effects of Pollutants. The primary air quality problems in Stanislaus County are ozone and suspended particulates (PM-10). Carbon monoxide is a problem only in the Modesto-Ceres urbanized area. The following is a discussion of the health effects of these important pollutants.

TABLE 3-6
FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour	0.12 PPM	0.09 PPM
Carbon Monoxide	8-Hour 1-Hour	9.0 PPM 35.0 PPM	9.0 PPM 20.0 PPM
Nitrogen Dioxide	Annual 1-Hour	0.05 PPM --	-- 0.25 PPM
Sulfur Dioxide	Annual 24-Hour 1-Hour	0.03 PPM 0.14 PPM --	-- 0.25 PPM 0.05 PPM
PM-10	Annual 24-Hour	50 ug/m^3 150 ug/m^3	30 ug/m^3 50 ug/m^3
Lead	30-Day Avg. Month Avg.	-- 1.5 ug/m^3	1.5 ug/m^3 --

Notes: PPM = Parts per Million
ug/m^3 = Micrograms per Cubic Meter

1. Ozone

Ozone is produced by chemical reactions, involving nitrogen oxides (NOx) and reactive organic gases (ROG), that are triggered by sunlight. Nitrogen oxides are created during combustion of fuels, while reactive organic gases are emitted during combustion and evaporation of organic solvents. Since ozone is not directly emitted to the atmosphere, but is formed as a result of photochemical reactions, it is considered a secondary pollutant. In the San Joaquin Valley Air Basin, ozone is a seasonal problem, occurring roughly from April through October.

Ozone is a strong irritant that attacks the respiratory system, leading to the damage of lung tissue. Asthma, bronchitis and other respiratory ailments as well as cardiovascular diseases are aggravated by exposure to ozone. A healthy person exposed to high concentrations may become nauseated or dizzy, may develop headache or cough, or may experience a burning sensation in the chest.

Research has shown that exposure to ozone damages the alveoli (the individual air sacs in the lung where the exchange of oxygen and carbon dioxide between the air and blood takes place). Research has shown that ozone also damages vegetation.

2. PM-10

PM-10 is small suspended particulate matter, 10 microns or less in diameter, which can enter the lungs. The major component of PM-10 are dust particles, nitrates, and sulfates. PM-10 is directly emitted to the atmosphere as a by-product of fuel combustion, wind erosion of soil and unpaved roads. Small particles are also created in the atmosphere through chemical reactions.

Particles greater than 10 microns in diameter can cause irritation in the nose, throat, and bronchial tubes. Natural mechanisms remove much of these particles, but particles less than 10 microns in diameter are able to pass through the body's natural defenses and the mucous membranes of the upper respiratory tract and enter into the lungs. The particles can damage the alveoli, tiny air sacs responsible for gas exchange in the lungs. The particles may also carry carcinogens and other toxic compounds, which adhere to the particle surfaces and can enter the lungs.

3. Carbon Monoxide

Carbon monoxide is a local pollutant in that high concentrations are found only very near the source. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volumes.

Carbon monoxide's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, carbon monoxide reduces the amount of oxygen in the blood, causing heart difficulties in people with chronic diseases, reduced lung capacity and impaired mental abilities.

Carbon monoxide is a wintertime problem in the San Joaquin Valley. This is partly due to the fact that automobiles create more carbon monoxide in colder weather, and partly due to the very stable atmospheric conditions that exist on cold winter evenings when winds are calm. Concentrations typically are highest during stagnant air periods within the period November through January.

d. Regional Air Quality Planning. The U.S. Clean Air Act Amendments of 1977 required that each state identify areas within its borders that do not meet federal primary standards as nonattainment areas. The federal Clean Air Act required the preparation of an attainment plan showing how the federal standards were to be met by 1987. Stanislaus County was one of many nonattainment areas in California that failed to meet the federal ambient air quality standards by 1987.

The federal Clean Air Act Amendments of 1990 require that new nonattainment plans be prepared and submitted to the U. S. Environmental Protection Agency. The San Joaquin Valley Unified Air Pollution Control District has recently adopted federal nonattainment plans for PM-10, carbon monoxide and ozone.(SJVUAPCD 1991, 1992a, 1994)

Prior to 1988 there was no timetable for attainment of the state air quality standards. The California Clean Air Act, enacted in 1988, requires local air pollution control districts to prepare air quality attainment plans for ozone and carbon monoxide. Generally, these plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods. The Act also grants air districts explicit statutory authority to adopt indirect source regulations and transportation control measures, including measures to encourage or require the use of ridesharing, flexible work hours, or other measures which reduce the number or length of vehicle trips.

Under the California Clean Air Act, Stanislaus County is considered nonattainment for ozone and suspended particulate (PM-10). The Modesto-Ceres Urbanized area is considered a nonattainment area for carbon monoxide. The County is either attainment or unclassified for other pollutants.

The 1991 Air Quality Attainment Plan for the San Joaquin Valley Air Basin identifies 11 Transportation Control Measures (TCM's) as "reasonably available" in the San Joaquin Valley Air Basin (SJVUAPCD, 1992b). The following TCM's are included in the Plan:

Traffic Flow Improvements
Public Transit
Passenger Rail Support/Facilities
Rideshare Program
Suburban Park and Ride Lots
Bicycling Program
Trip Reduction Programs
Telecommunications
Alternative Work Schedules

The Plan also proposes an indirect source program consisting of three elements:

Enhanced District CEQA Participation
Air Quality Element for General Plans
New and Modified Indirect Source Review

The first two of these indirect source measures have been implemented, but no action has been taken on the third.

e. Current Air Quality. The San Joaquin Valley Unified Air Pollution Control District and California Air Resources Board maintain air quality monitoring sites in Stanislaus County. Data from Stanislaus County monitoring sites are shown in Table 3-7.

Air quality in Stanislaus County generally meets the state and federal ambient air quality standards except for ozone and PM-10. Also, violations of the 8-hour ambient air quality standards for carbon monoxide have been recorded, but only in downtown Modesto.

TABLE 3-7
AIR QUALITY DATA FOR STANISLAUS COUNTY MONITORING SITES, 1991-1993

Pollutant	Standard	Site	Days Above Standard in:		
			1991	1992	1993
Ozone	State 1-Hour	Turlock	22	24	15
		Modesto	23	10	13
		Crows Landing	1	--	--
		Westley	0	--	--
Ozone	Federal 1-Hour	Turlock	0	0	2
		Modesto	0	0	0
		Crows Landing	0	--	--
		Westley	0	--	--
PM-10	State 24-Hour	Modesto	24	26	16
		Crows Landing	2	--	--
		Westley	5	--	--
PM-10	Federal 24-Hour	Modesto	1	3	1
		Crows Landing	0	--	--
		Westley	0	--	--

Data from Stanislaus County monitoring sites adequately describe air quality at the project site for regional pollutants such as ozone and PM-10 data. For local pollutants such as carbon monoxide, concentrations near the project site have been estimated for existing and future conditions using an air pollutant dispersion model. The results of this analysis are described in the Impacts section below.

3.C.2. CRITERIA FOR DETERMINING SIGNIFICANCE OF IMPACTS

According to the California Environmental Quality Act (CEQA), a project will normally have a significant adverse impact on air quality if it will "violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations."

The project's potential for violating the ambient air quality standards for local pollutants or causing nuisance to neighboring properties is used in this report to determine the significance of localized air quality impacts.

For regional pollutants, violation of air quality standards cannot be used as a "threshold of significance" since the standards are exceeded in San Joaquin County. Project impacts have been judged using those thresholds of significance recommended by the San Joaquin Valley Unified Air Pollution Control District (David Stagnaro, SJVUAPCD, Telephone Conversation, 13 December 1994). These significance thresholds are 55 pounds per day for ozone precursors (ROG and NOx), and 82 pounds per day for PM-10.

3.C.3. IMPACTS

a. Construction Impacts. Development of the project area would result in periodic construction activities within the Specific Plan area until buildout occurs. No schedule exists for such construction, but it is likely that construction activities will be taking place near existing or previously built portions of the study area during the buildout period.

Construction activities are a source of organic gas emissions. Solvents in adhesives, non-waterbase paints, thinners, some insulating materials and caulking materials evaporate into the atmosphere and participate in the photochemical reaction that creates urban ozone. Asphalt used in paving is also a source of organic gases for a short time after its application.

Construction dust could affect local air quality at various times during construction of the project. The dry, windy climate of the area during the summer months combined with the fine,

silty soils of the region create a high potential for dust generation when and if underlying soils are exposed to the atmosphere.

The effects of construction activities would be increased dustfall and locally elevated levels of PM-10 downwind of construction activity. Construction dust is considered to represent a potentially significant localized and temporary impact that generally can be mitigated. Specific Plan Appendix C establishes requirements to minimize construction impacts.

b. Local Long-Term Air Quality Impacts. Locally, the pollutant of greatest interest is carbon monoxide. Concentrations of this pollutant are related to the levels of traffic and congestion along streets and at intersections.

The CALINE-4 computer simulation model was applied to five major intersections within the plan area. These were selected as having high volumes and/or congestion levels, and thus represent the expected sites of maximum carbon monoxide concentrations. The model results were used to predict the maximum 1-and 8-hour concentrations, corresponding to the 1- and 8-hour averaging times specified in the state and federal ambient air quality standards for carbon monoxide. The CALINE-4 model and the assumptions made in its use for this project are described in Appendix B.

Table 3-8 shows the results of the CALINE-4 analysis for peak 1-hour and 8-hour periods in parts per million (PPM). The analysis was carried out for existing conditions in 1994 and buildout conditions in the year 2010. The 1-hour values are to be compared to the federal 1-hour standard of 35 PPM and the state standard of 20 PPM. The 8-hour values in Table 3-8 are to be compared to the state and federal standard of 9 PPM.

Table 3-8 shows that predicted concentrations of carbon monoxide at all intersections analyzed are currently well below the state and federal standards. Concentrations at buildout in 2010 would actually be below current concentrations, despite cumulative traffic growth, due to anticipated reductions in per-mile emissions rates for vehicles resulting from state mandated emission control programs. Concentrations are predicted to remain below the state and federal standards. Therefore, project impacts on carbon monoxide concentrations are considered to be less-than-significant.

c. Regional Permanent Air Quality Impacts. Vehicle trips generated by developed land uses within the Specific Plan area would result in air pollutant emissions affecting the northern San Joaquin Valley Air Basin. Regional emissions associated with project vehicle use have been calculated using EMFAC7F emission factors and are shown in Table 3-9. The methodology used in estimating vehicular emissions is described in Appendix B.

TABLE 3-8
PROJECTED WORST CASE CARBON MONOXIDE CONCENTRATION NEAR SELECTED INTERSECTIONS, IN PARTS PER MILLION

Intersection	Averaging Time	Existing (1994)	Build Out (2010)
Fulkerth/ Countryside	1-Hour 8-Hour	6.8 4.8	6.8 4.8
Fulkerth/ Tully	1-Hour 8-Hour	9.9 6.9	6.7 4.7
Fulkerth/ Golden State	1-Hour 8-Hour	9.9 6.9	6.9 4.8
Monte Vista/ Countryside	1-Hour 8-Hour	-- --	7.2 5.0
Monte Vista/ Golden State	1-Hour 8-Hour	7.0 4.9	6.9 4.8
Most Stringent Standard	1-Hour 8-Hour	20.0 9.0	20.0 9.0

TABLE 3-9
PROJECT REGIONAL EMISSIONS IMPACTS IN POUNDS PER DAY

	ROG	NOx	PM-10
Project Emissions:			
Vehicle Emissions	299.4	449.9	220.9
Commercial Emissions	2.3	52.8	0.1
Residential Emissions	305.7	60.9	19.8
Total	607.4	563.6	240.8
Agricultural Sources Removed	16.4	35.3	43.5
Net Change	591.0	528.3	197.3
Significance Criterion	55.0	55.0	82.0

ROG = Reactive Organic Gases
NOx = Nitrogen Oxides
PM-10 = Particulate Matter, 10 microns

Daily emissions associated with proposed residential and commercial uses are also shown in Table 4. Residential uses contain a number of dispersed and intermittent sources of pollutants such as space and water heaters, household paints and solvents, fireplaces and woodstoves, lawn mowers and other equipment (BAAQMD, 1985). The primary emission source from commercial uses is the combustion of natural gas for space and water heating (SCAQMD, 1993).

Buildout of the Northwest Triangle would also eliminate some existing agricultural air pollutant sources. Agricultural activities generate pollutants through combustion of fuels by farm equipment and vehicles, pesticide application and tilling. Daily per-acre emission rates for agricultural uses were used to estimate the emissions eliminated by conversion of land to urban uses. The methods and assumptions used in developing the emission factor are described in Appendix B. The estimated agricultural emissions eliminated by Plan buildout are shown in Table 3-9.

Table 3-9 shows the net change in regional emissions that would occur with buildout of the Northwest Triangle for Reactive Organic Gases and Nitrogen Oxides (two precursors of ozone) and PM-10. The thresholds of significance are also shown. Emissions generated by the project at buildout would exceed the thresholds of significance for ozone precursors, so the project's contribution to cumulative impacts on regional air quality is considered to be significant.

3.C.4. MITIGATION

a. Mitigation Measures Proposed as Part of the Project. Specific Plan Appendix C lists mitigation measures included as part of the project. These include construction practices designed to reduce windblown dust and vehicle emissions, building design requirements to reduce emissions and policies regarding energy conservation strategies that reduce emissions.

Development standards contained in the Specific Plan place special limits on trip generation for certain land uses. These limits are designed to reduce traffic congestion, but they would also limit the impact of project-related traffic on local air quality.

The Plan contains site planning and architectural principles that encourage the use of design and site planning to encourage pedestrian and bicycle modes of travel. These include provision of pedestrian/bicycle amenities, creation of pedestrian and bicycle corridors, and placement of buildings and uses so as to make non-auto travel more attractive.

b. Mitigation Measures Not Proposed as Part of the Project. The following measures could be implemented to further reduce project impacts:

- Require that all employment-generating uses within the Plan area join a Transportation Management Association formed to develop trip reduction strategies for the Plan area.

- Require that any gas stations locating within the Plan make provisions for a future Compressed Natural Gas fueling station.

- Require garages to be designed to allow installation of outlets to provide for charging of electric cars.

3.C.5. SUMMARY OF IMPACTS

Project construction impacts have been identified as potentially significant. Implementation of construction practices contained in Specific Plan Appendix C would reduce construction impacts to a level that is less than significant. Several of the measures are required by the San Joaquin Valley Unified Air Pollution Control District's Regulation VIII which requires the use of stabilization of storage piles, the use of water or chemical dust suppressants for unpaved construction or access roads and removal of accumulated mud or dirt from public paved roads.

Project impacts on local carbon monoxide concentrations are considered to be less-than-significant so application of mitigation measures is not required.

The project would have a significant impact on emission of ozone precursors. While the mitigation measures that are part of the proposed project or recommended by this report would be able to reduce project impacts on regional air quality by 10 to 15 percent, there is currently no practical way to reduce impacts by over 90 percent to bring project impacts below the significance thresholds. Therefore, the project's impact on regional air quality is considered a significant and unavoidable cumulative impact.

3.D. AGRICULTURE

3.D.1. ENVIRONMENTAL SETTING

a. Existing Uses. In 1994, agriculture is the single largest land use in the Specific Plan area, with active operations on 426 of the area's 889 acres.[1] Table 3-10 indicates the acreage in each crop type as of August, 1994. In addition to these uses, a number of the rural residences east of Golden State are built on former orchards and continue to support productive fruit and nut trees. There are also a number of parcels which are now fallow but which formerly supported crops or pasture.

TABLE 3-10
EXTENT OF AGRICULTURE IN THE NORTHWEST TRIANGLE, 1994

Crop Type	Acreage
Almonds	138
Corn/Hay/Pasture	114
Row Crops	77
Baby's Breath	55
Dairy	22
Vineyard	20
TOTAL	426

Source: Field observations, 1994

Almonds and field crops represent the major share of crops grown in the Northwest Triangle. Of the 24 parcels in the Triangle identified as having an active agricultural use, nine were planted with almonds, five with hay or grain, and four with corn.

[1] Acreage in parcels only; excludes street and highway rights of way.

Almond orchards varying in size from 5 to about 35 acres occupy much of the land between Golden State Boulevard and Highway 99. The orchards provide a visual buffer between the freeway and existing development along Golden State Boulevard. However, their proximity to urban uses on both sides has made commercial operation more difficult. Almonds grown in the Specific Plan area represent less than 5 percent of the almond crop in the Turlock General Plan Planning Area.

Row crops are planted along Tuolomne Road, and at the southwest corner of Monte Vista and Tegner Roads. Corn is predominant in the southwest part of the area and occupies most of the acreage in the vicinity of Tegner and Fulkerth Roads. Alfalfa hay, grain, and pasture also are grown in the area, primarily west of Highway 99.

The Northwest Triangle supports one of State's largest commercial producers of Baby's Breath, occupying about 55 acres south of Monte Vista between Golden State and Highway 99. The Triangle also contains a dairy (at Monte Vista and Golden State), and a vineyard on Tuolomne Road.

Existing agricultural uses are shown in Figure 8.

b. History of Agriculture in the Area. Anecdotal reports from local farmers indicate that the Northwest Triangle has been cultivated for at least 100 years. US Department of Agriculture soil reports indicate that most of the area was irrigated and in production by 1909, primarily with row crops. The pattern appears to have stayed relatively constant through the 1960s. Aerial photos from 1964 and 1994 indicate that the pattern of farming changed during the last 30 years, with almond orchards replacing row crops in many cases. Some of these orchards have been displaced by urban development in the past 5 years, particularly in the southern part of the Plan Area along Fulkerth and Tully Roads.

c. Williamson Act Status. The California Land Conservation Act of 1965 (Williamson Act) is intended to discourage the unnecessary and premature conversion of agricultural land to urban uses. When the County and a private landowner enter into a Williamson Act Agreement on a parcel, the landowner agrees to limit its use to agriculture and compatible uses for a period of at least 10 years. In exchange, the County agrees to tax the land based on its agricultural productivity rather than its real estate market value. The agreement discourages land speculation, while the lower tax rate provides an incentive to keep the land in agriculture.

Only five of the parcels in the Specific Plan Area are under Williamson Act contracts in 1994. The parcels, 23-15-03 (33.2 Acres) and 23-06-03 (12 acres), are located along the east side of Highway 99 between Monte Vista and Fulkerth Roads, and are actively farmed. Both are

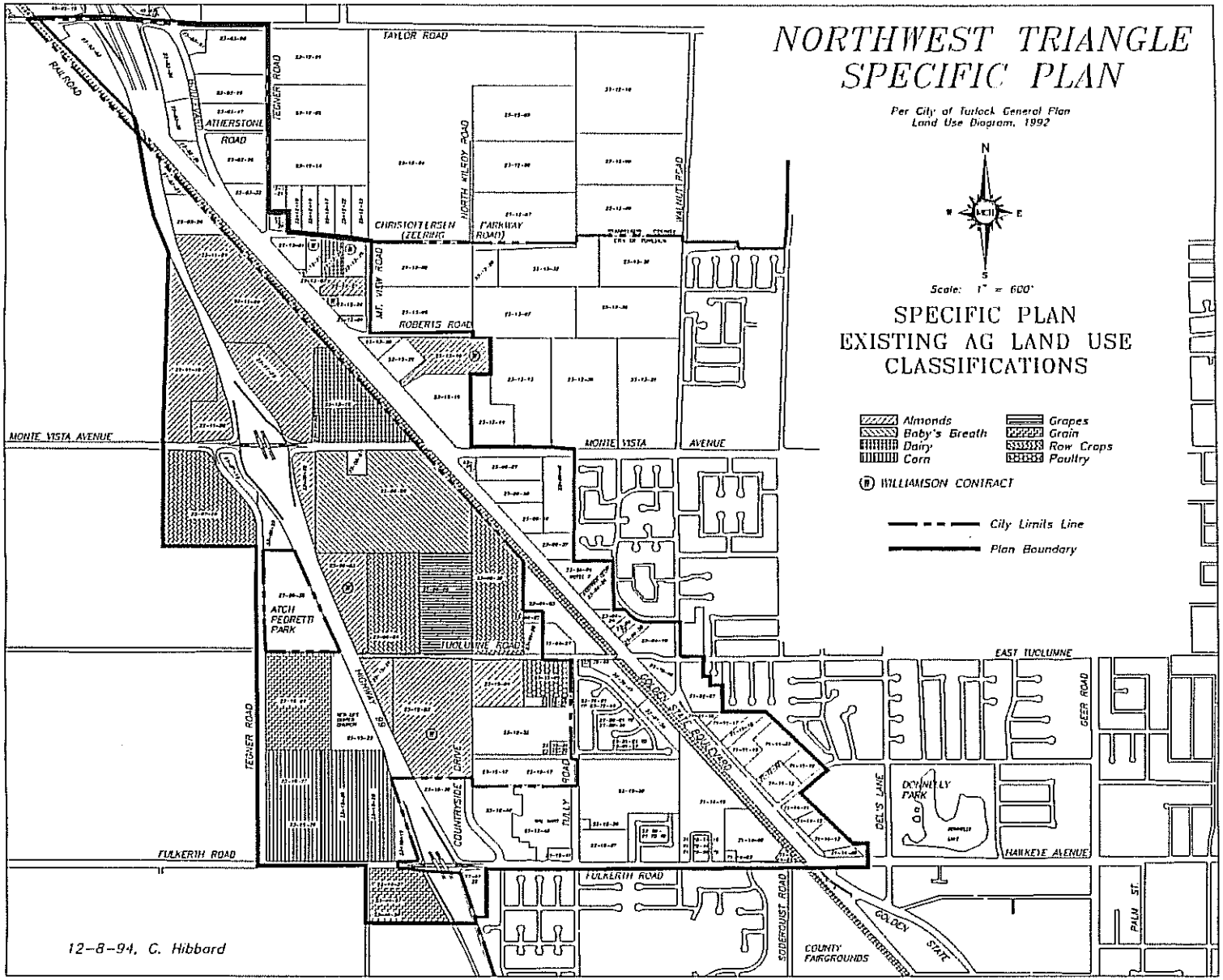

NORTHWEST TRIANGLE
SPECIFIC PLAN
Per City of Turlock General Plan
Land Use Diagram, 1992
N
W
E
S
Scale: 1" = 600'
SPECIFIC PLAN
EXISTING AG LAND USE
CLASSIFICATIONS
Almonds
Baby's Breath
Dairy
Corn
Grapes
Grain
Row Crops
Poultry
(R) WILLIAMSON CONTRACT
City Limits Line
Plan Boundary
TAYLOR ROAD
RAILROAD
ATHERSTONE ROAD
TEGNER ROAD
NORTH KILROY ROAD
WALNUT ROAD
CHRISTOFFERSEN (FEELING PARKWAY ROAD)
MT. VIEW ROAD
ROBERTS ROAD
MONTE VISTA AVENUE
ATCH PEORETTI PARK
TUOLUMNE ROAD
EAST TUOLUMNE
GEER ROAD
GOLDEN STATE BOULEVARD
HIGHWAY 99
COUNTRYSIDE DRIVE
TULLY ROAD
DEL'S LANE
DENNETTY PARK
HAWKEYE AVENUE
FULKERTH ROAD
SOUTH GOLDEN STATE BOULEVARD
PALM ST.
COUNTY FAIRGROUNDS
12-8-94, C. Hibbard

Figure 8

with almonds and are under common ownership. The contracts will expire on December 31, 1995. The owner has filed for non-renewal on both parcels.

Several parcels outside of and adjacent to the Specific Plan boundaries are under Williamson Act contract, including two parcels east of Tegner Road near Taylor Road and a parcel north of Taylor Road at Highway 99. Owners of all three of these parcels have filed for non-renewal, with two of the contracts expiring on December 31, 1995, and the third expiring on December 31, 1997. These parcels are designated for urban uses in the General Plan.

Two more parcels under contract adjoin the western boundary of the Specific Plan area west of Highway 99. Both are designated for agriculture in the General Plan and should continue to retain their Williamson Act status for at least the next 10 years.

Figure 8 indicates parcels under Williamson Act contract in and around the Specific Plan area.

d. Agricultural Infrastructure. Farm infrastructure in the Specific Plan area includes Turlock Irrigation District Lateral 3, which traverses the northern boundary along the south side of Taylor Road. When the adjacent properties are developed, the canal will be relocated or walled off in accordance with Irrigation System Administration standards, at the expense of the project developer.

Other improvements within the project area include almond hulling equipment, barns, sheds, greenhouses, dairy buildings, and other outbuildings, irrigation furrows, and wells. In most cases, farm buildings would be demolished or removed from the site at the time of development. Wells might be retained depending on their yields, water quality, and specific location.

e. Soil Conditions. The last survey of soil conditions in the Turlock area was published by the USDA Soil Conservation Service (SCS) in 1964. The survey identified seven soil types in the Specific Plan area, with about 80 percent of the acreage classified as Dinuba Sandy Loan or Delhi Loamy Sand. At the present time, about half of these soils have been developed with urban uses or roads; the remaining half support a variety of agricultural uses.

Most of the non-urbanized soils within the Northwest Triangle are classified as "Prime" based on the State Department of Conservation's Important Farmlands Inventory, and as "Class I" or "Class II" based on the SCS Land Capability System. These classifications are based on a variety of factors, such as drainage, salinity, slope, thickness, permeability, and susceptibility to erosion.

"Prime" soils encompass approximately 480 acres within the Northwest Triangle Area. Most of the Monte Vista West, Countryside Community Commercial, and West of 99 sub-areas are included and a large portion of this land is currently in active agricultural use.

"Class I" soils encompass about 70 acres within the Plan area and can be found on both sides of the Highway 99/ Monte Vista interchange and again along Monte Vista east of Golden State. These correspond to Hanford Sandy Loam, a gently sloping alluvial soil which has moderate to high fertility. "Class II" soils encompass about 400 acres, including nearly all of the Triangle north of Monte Vista and most of the land south of Monte Vista and west of the proposed Countryside Drive alignment. These soils correspond primarily to Dinuba Sandy Loam, an alluvial soil with moderate fertility. Other soils in the area are either urbanized or have lower capability ratings.

f. Agricultural Trends in the Vicinity. A wide range of crops are grown in the Turlock vicinity. Predominant among them are fruits and nuts, with almonds representing a major share. Other produce in the area includes grain, hay and field, and truck and berry crops. Truck and berry crops include artichokes, lettuce, potatoes, tomatoes, and strawberries. About a fifth of the agricultural land around the city is used as pasture. Other crops include deciduous fruits and nuts, subtropical fruits, and vineyards.

In the County as a whole, about half of the agricultural income is generated from livestock and poultry and about half is generated by crops. Milk was the top-ranking farm commodity in 1992 and 1993, with a value of nearly $292 million. Almond production followed at $191 million, with chickens ranking third at $97 million. Other leading commodities, in descending order, were walnuts, cattle, eggs, peaches, turkeys, alfalfa, grapes, tomatoes, corn, beans, and apricots (Stanislaus County Department of Agriculture, 1993).

According to a 1991 study for the State Office of Land Conservation, 11,960 acres of cropland in Stanislaus County were lost to urban conversion between 1977 and 1988. However, 13,680 acres of wildland were converted to irrigated farmland, for a net gain of more than 1,700 acres.[2] The study reported that alfalfa and irrigated crops were the predominant crops on land that was converted and the loss of orchards was minimal. By contrast, 77 percent of the new farmland created was planted in almonds, consistent with the regionwide trend of converting field crops to more lucrative (but often risky) vegetable, fruit, and nut crops.

[2] More current information from the Stanislaus County Department of Agriculture indicates that between 1992 and 1993 total fruit and nut acreage in the County had a net decline of 4,000 acres, field crop acreage (excluding rangeland) had a net decline of 11,500 acres, and vegetable crop acreage had a net increase of 1,300 acres. The total net loss in these three categories between 1992 and 1993 was 14,200 acres. It is not known how much of this acreage was lost to urban development and how much was taken out of production for other reasons.

Agriculture employed 11.1 percent of the labor force in Stanislaus County in 1990, with an estimated one-third of all jobs in the region directly or indirectly generated by agriculture. Regional employment in agriculture increased by 20 percent between 1975 and 1988. However, non-farm employment increased by 56 percent, leaving agriculture with a smaller share of the economic base. Employment levels are expected to remain fairly stable over the next few years, with agricultural industry expected to retain its strong presence.

The number of jobs provided by agriculture within the project boundaries is not known. However, given the large number of agricultural support businesses along Golden State Boulevard (farm implement dealers, irrigation supplies, etc.), it appears that a greater number of jobs in the agricultural sector are provided by these uses than by the farms themselves. The orchards are fairly labor intensive and provide seasonal employment during the harvest, although the actual number of jobs has not been documented. In general, displacement of fruit and vegetable crops has a greater adverse impact on the economy than displacement of field crops since the former are more labor intensive, produce higher yields per acre, and are linked to more secondary jobs.

g. Yields from Farms in the Area. Production yield data for individual parcels or locations is not available. However, the 1993 Report of the Stanislaus County Department of Agriculture reports total yield from a variety of crop types. This information is presented in Table 3-11. In addition to the direct income generated by crop yields, indirect or secondary income is generated through food processing, farm equipment manufacturing and sales, and other related activities. The 1992 General Plan used a multiplier of 4.9 to estimate the extent of secondary income generated by agriculture.

TABLE 3-11
TYPICAL ANNUAL YIELDS PER ACRE FOR CROPS GROWN IN THE NORTHWEST TRIANGLE

CROP TYPE	Production Yield Per Acre (tons)	Dollar Value Per Ton	Dollar Value Per Acre
Almond Meats	0.71	$3,840	$2,726
Almond Hulls	1.42	$60	$85
Grapes	9.00	$186	$1,674
Corn	28.00	$19.20	$537
Hay, Alfalfa	7.80	$106	$827
Walnuts	1.90	$1,355	$2,575
Misc. Nursery Products	--	--	$6,130

Source: 1993 Stanislaus County Agricultural Crop Report

h. Future Viability of Agricultural Uses in the Northwest Triangle. Even before construction of State Route 99, farmers in the Northwest Triangle had to contend with operational constraints. Encroachment from urban uses has existed in the area for some time, particularly along Golden State Boulevard and the Southern Pacific Railroad where commercial development and "ranchettes" have existed for many years. Many parcels in the area are too small for commercial agriculture. Average farm size in the Northwest Triangle is just 17 acres, less than half the figure reported for the Turlock area as a whole in the 1992 General Plan.

Construction of SR 99 in the 1970s divided many of the area's largest parcels and left a large wedge of farmland east of the freeway with constraints that made farming less viable. The freeway's presence makes it difficult to apply herbicide, fertilizer, and seed from the air. Such constraints have been compounded by rising irrigation and insurance costs which reduce profit margins and make farming less economical. In a June, 1994 survey conducted by the City, a majority of the responding landowners indicated that their operations were not profitable and that they would discontinue their operation upon the development of adjacent land or the loss of their current tenants.

Parcels west of Highway 99 have also been impacted by urban encroachment, although the freeway has functioned as a natural separator from the City to some extent. Pedretti Park and New Life Church, the only "urban uses" west of the freeway, are relatively compatible with surrounding farm operations and have not created conflicts. Based on current conditions, farm operations west of the freeway appear less encumbered than those to the east. Accordingly, they are planned for development in later phases of the Specific Plan development program. Three parcels in this area are designated by the Specific Plan for continued agricultural use.

Presently, agricultural operations in the Northwest Triangle generate levels of noise, odor, and dust that could be found objectionable by residents living in immediately abutting residential subdivisions. Noise is generated by tractors, harvesting equipment, spray equipment, and other farm machinery in the area. Tractors and sprayers in the area produce noise in the range of 70-80 decibels at a distance of 100 to 200 feet. Noise levels generally do not last more than a few hours at any given location and have seasonal variations.

The primary odor source in the area is the dairy on Monte Vista Road. Since the dairy is approximately 1,800 feet upwind of proposed residential neighborhoods in the Specific Plan area, occasional odor problems can be expected if the dairy is still active when these areas are developed. Dust is generated by tractors in the area, primarily on field crops grown west of Highway 99.

The future viability of agriculture in the area is also affected by restrictions on chemical spray applications. Aerial or ground applications of certain sprays are regulated by the Stanislaus County Department of Agriculture. The Department can withhold permits if it feels spraying would create a health or safety hazard in surrounding residential areas. Even for sprays which are not restricted, applications from the air become impractical for parcels that are small or hemmed in by urban uses.

As of 1994, aerial spraying is infrequent in the Specific Plan area. While each individual grower may choose how to spray, ground applications are usually more economical. According to the County Department of Agriculture and a local chemical sales company (AgPro), aerial spraying occurs less than once a year in the area. When it does occur, it is most likely to be during the spring, particularly during wet years when it is difficult to maneuver ground equipment in the orchards and fields. The aerial applications usually consist of fungicides and are sprayed by helicopter; almost all herbicide application occurs from ground tanks.

Almond orchards like those in the Specific Plan area are usually treated with chemicals several times a year using conventional orchard fan sprayers. Copper and organo-phosphates are applied during the winter and fungicides and weed sprays (Round-Up, paraquat, 2,4-D, etc.) are applied during the spring. Field crops and alfalfa may be treated with mitacides and weed sprays. Grapes similar to those in the Specific Plan area may be treated with sulfur. Nursery crops, like Baby's Breath, are usually treated with weed sprays from ground rigs with nozzles pointed down.

While ground sprays do not ordinarily impact surrounding parcels, some chemical drift is possible. As the Northwest Triangle develops, the likelihood of conflicts and complaints from urban uses will increase, making it more difficult for farmers to control weeds, fungi, and insect pests. Spray restrictions may further impair crop and orchard yields in the area.

i. Surrounding Uses. Productive agricultural uses occur to the west, north, and northeast of the Specific Plan area. Land to the south and southeast has already been urbanized. The area to the northeast is most similar to the Specific Plan area, with relatively small parcels, encroachment from urban uses, and extensive planting of almonds. This area has also been designated in the General Plan for future residential development. The area to the north includes somewhat larger parcels and is also dominated by almonds. Some of the area will be retained in agricultural use but parcels closest to Highway 99 and the Southern Pacific tracks are to be developed with Heavy Commercial uses.

The largest and most extensive agricultural area exists to the west of the Plan area boundaries, where orchards, grain and field crops, and pasture extend for several miles toward the San Joaquin River. This area is expected to remain in agricultural production for at least the next 20 years. Parcel sizes are generally larger than those in the Specific Plan area and much of the land is under Williamson Act contract. Most of the soils in this area, as well as the area to the north and northeast are classified as "Prime."

j. Consistency of the Specific Plan with City and County Agricultural Conversion Policies. The Specific Plan is consistent with both the City of Turlock General Plan and the Stanislaus County General Plan. Both Plans address the issue of agricultural land conversion and agricultural-urban conflicts, and encourage the type of compact, mixed use development accommodated by the Specific Plan in locations adjacent to existing urban areas.

Policies in Section 6.1 of the 1992 Turlock General Plan call for the protection of agriculture through a variety of measures, all of which are incorporated in the Northwest Triangle Specific Plan. These include limiting urban expansion to areas designated in the General Plan, requiring higher density residential development to avoid urban sprawl, maintaining a compact urban form, supporting the Stanislaus County Right-to-Farm Ordinance, and retaining Highway 99 as the western boundary of residential neighborhoods. The Specific Plan area is already designated for urban uses in the General Plan and is planned for development at higher densities than recent development in the City. Planned residential densities average 5.2 units per acre, which is about 20 percent greater than the typical late 1980s housing development documented in the Turlock General Plan.

The Stanislaus County General Plan policies promote compact, contiguous growth and encourage growth in areas where the viability of farming is limited (either by soil conditions or urban encroachment constraints). The County's Agriculture Element recognizes the right of cities to grow and encourages higher density development in urban areas as an alternative to sprawl and rural residential development. Although the Specific Plan would lead to conversion of 380 acres of farmland to urban use, all of this land has already been designated for development in the County General Plan and most of it has already been impacted by Highway 99 or encroaching residential development. Projects within the Specific Plan area will alleviate the pressure to urbanize farmland elsewhere in the county, and will establish a permanent buffer between new residential neighborhoods and agricultural lands.

3.D.2. CRITERIA FOR DETERMINING SIGNIFICANCE OF IMPACTS

Appendix G of the CEQA guidelines states that a significant impact should be identified if the proposed project would "convert prime agricultural land to non-agricultural use or impair the agricultural productivity of prime agricultural land."

This EIR also uses regional economic impacts as a criteria for determining significance. A significant impact will be identified if the project affects the regional economy. Impacts that are highly localized or limited to one particular sector of the agricultural economy may be considered less than significant.

3.D.3. IMPACTS

a. Loss of Prime Agricultural Land. The proposed Specific Plan would have a direct impact on agriculture by displacing up to 380 acres of agricultural land, almost all of which is classified as Prime farmland. The area represents less than one-tenth of one percent of Stanislaus County's productive agricultural land. While this amount is small compared to the total productive area in the County, the impact is considered to be significant and irreversible. The loss will permanently reduce the amount of land available for crop and orchard production in Stanislaus County.

Given the long time period expected for buildout of the Specific Plan, agriculture is likely to continue as an interim use on Specific Plan parcels for some time. Mitigation measures have been incorporated into the Specific Plan to improve the viability of agriculture prior to each parcel's development. About 58.5 acres within the boundaries would retain a Plan designation of "Agriculture" including a 12.5-acre site containing a church and 46 acres of currently active farming operations.

The almond orchards, row crops, and pasture in the Northwest Triangle represent a relatively small share of the total almonds, row crops, and pasture in the Turlock Planning Area. The dairy could potentially relocate to a site that is further away from urban uses and would not require prime agricultural soil for operation. However, the investment in infrastructure at the dairy is substantial and relocation would be expensive.

The Baby's Breath operation is unique and is only one of two sites in the Turlock area where this product is grown. Should the operator decide to relocate the operation after its displacement from the project site would require that it find another site with comparable climate, soil conditions, and water availability. Relocation would require investment in new infrastructure, namely sheds, greenhouse buildings, and irrigation equipment. Up to ten years of lead time may

be required to create an operation of comparable value and productivity to the existing operation on Monte Vista Road (pers. comm. J. Hamilton, 12/2/94). This is because the plants are not grown from seed but from transplanted specimens that cannot be immediately harvested. The survival rate of the individual plants may be less than five percent, so relocation is a costly and time-consuming process.

b. Economic Impacts. Agricultural economic impacts from the project include the direct loss of farm jobs and agricultural income from active operations in the Plan Area and the indirect loss of income and revenue from spin-off jobs. These losses to the economy would be more than balanced by the increased economic activity attributable to greater urban activity in the Northwest Triangle.

The 1992 General Plan used an average production value of $1,800 per acre for the City as whole. This value is probably close to the average values per acre in the Northwest Triangle. The absence of high-yield vegetable and fruit tree crops is probably offset by the high-yield Baby's Breath operation and dairy. Using the General Plan figure, conversion of 380 acres within the Plan boundaries would result in the loss of $684,000 annually. This is less than one tenth of one percent of Stanislaus County's gross agricultural income.

While the regional impact is relatively small, the loss of farms and orchards in the Plan Area would displace tenant farmers and eliminate some seasonal jobs in the Turlock area. Permanent job losses would result from the termination of Baby's Breath production and the closure of the dairy if these operations are not re-established on new sites.

The conversion of farms to urban uses would also result in secondary economic impacts. As mentioned earlier, the General Plan used a multiplier of 4.9 to estimate the secondary contributions of farmland to the regional economy. This equates to $3.3 million in lost income assuming full development of Specific Plan area farms.

The direct loss of farm jobs in the Specific Plan area and the indirect loss of jobs in industries relying on the area's crops would be balanced by jobs created by new development within the area. The General Plan conservatively estimated the economic productivity of urban land to be seven times greater than farmland. Consequently, the net effect of the Specific Plan on employment and income in Turlock is likely to be positive.

On a sector level, a net positive effect is likely in the agricultural sector as well as the economy as a whole. Because the Specific Plan designates large areas for "Heavy Commercial" development, new agri-business enterprises are likely to locate in the area. Employment in the agricultural sector is likely to increase as new farm-oriented businesses and support services are

established. However, the new jobs are more likely to be service-oriented than production-oriented, and there is no guarantee that displaced farmworkers or farm tenants will find work in new businesses in the Northwest Triangle.

c. Impacts to Surrounding Farmland. The following permanent impacts are possible on the perimeter of the Specific Plan area. **These impacts are potentially significant.**

- Reduced agricultural yields and profitability could result from increased air pollution, pest infestation, trespassing, vandalism, restrictions on ground spraying, and intrusion by domestic animals.

- Reduced profitability of farming could result from increased farmland costs, liability insurance, and taxes.

- Reduced feasibility of farming could occur due to complaints from new businesses subject to noise, dust, chemical drift, odors, and other impacts.

- Increased growth pressure could occur if development in the Specific Plan area proceeds at a faster pace than anticipated, or if the precedent of "leapfrogging" is set by non-contiguous development within the Specific Plan area.

Termination of Williamson Act contracts on parcels west of the Specific Plan area is not anticipated as a potential impact. The areas are beyond the City's Sphere of Influence, will receive no urban services as a result of the Plan's implementation, and are designated for agriculture in the City and County General Plans.

3.D.4. MITIGATION

a. Mitigation Measures Proposed as Part of the Project. The project-level impacts of the Specific Plan are partially mitigated by the Plan's consistency with City and County General Plans. All of the land in the Specific Plan Area was previously designated for urban development in the 1988 Stanislaus County General Plan and the 1992 Turlock General Plan. No additional areas have been proposed for conversion. The 1992 Turlock General Plan indicated a loss of 3,200 acres of prime farmland upon Plan buildout. The Specific Plan area to be converted represents about 12 percent of that total. The land uses proposed in the Specific Plan are comparable to those in the General Plan and would not have a greater impact on farmland on the perimeter of the planning area.

Chapter 6 of the Specific Plan includes principles to mitigate potential agricultural impacts. These principles reflect the following objectives:

- To retain agriculture as a viable *interim* land use within the Planning Area boundaries; and

- To retain agriculture as a viable *long-term* land use outside (west of) the Plan Area boundaries.

The first objective is addressed in the Specific Plan through the following principles:

Principle 6.6-c requires the use of Right to Farm disclosure notices for residential subdivisions that adjoin still active farms, even though such properties are planned for urban uses in the long run. The Notices would apprise residents of potential dust, noise, odor, and other impacts associated with agricultural operations.

Principle 6.6-d requires zoning within the Specific Plan area to allow farming as a use permitted by right as long as the parcel is non-contiguous with residential development on two sides.

Principle 6.6-e requires property line fencing for any residential lot in the Specific Plan area that adjoins a still active farm, even though the farm may be planned for urban uses in the long run.

The second objective is addressed in the Specific Plan through the following principles:

Principle 6.6-b retains Parcels 23-15-01, 23-15-27, and 23-15-28 in agricultural use and indicates that these parcels should not be assessed for infrastructure needed to accommodate development elsewhere in the Specific Plan area.

Principle 6.6-f requires properties on the perimeter of the Planning area to be developed in a manner which minimizes potential conflicts with adjacent agricultural uses. A 100' setback containing less sensitive uses (parking, landscaping, storage) is recommended on parcels which are not separated from agriculture by a public street. This includes parcels 23-11-18, 23-57-14, 23-15-30, and 23-44-57.

Principle 6.6-g strictly enforces domestic animal control and trespassing laws.

The Land Use Plan itself has been structured to minimize direct abutment of agriculture with future development. Only four development sites in the Specific Plan area directly abut property that is designated for Agriculture. These parcels are planned for highway-oriented commercial land uses and should not interfere with farm practices on adjacent properties. The Plan recommends the continued application of Williamson Act contracts for properties both within and adjacent to the Northwest Triangle to minimize growth-inducing impacts on these lands. The Land Use Plan also uses higher densities as a means of curbing urban sprawl and reducing further expansion of the urban area.

b. Feasible Mitigation Measures Not Proposed as Part of the Specific Plan or EIR. The only measure available which would reduce impacts on agriculture to a level of insignificance would require dramatic changes to the proposed project and would require amendment of the Turlock General Plan to eliminate this area from consideration for future development. Because such changes would be wholly inconsistent with the objectives of the Specific Plan, they are not imposed as mitigation measures by this EIR.

Changes to the proposed project which would reduce agricultural impacts are discussed in Section 4 of this EIR, in the Description and Analysis of Alternatives. An "Agricultural Protection Alternative" describes additional principles to ensure the viability of agriculture as an interim land use. However, these principles postpone significant impacts rather than eliminating them.

3.D.5. SUMMARY OF IMPACTS

The application of the mitigation measures that are included in the Specific Plan, along with the overall orientation of land uses and the proposed phasing of development, will reduce the project-level impacts to a less than significant level. However, the cumulative impacts cannot be reduced to a less than significant level.

3.E. NOISE

3.E.1. SETTING

a. Background Information on Noise. Noise is defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing. Decibels and other technical terms are defined in Table 3-12.

Most of the sounds which we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency together generate a sound. The method commonly used to quantify environmental sounds consists of evaluating all of the frequencies of a sound in accordance with a weighting that reflects the facts that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency mid-range. This is called "A" weighting, and the decibel level so measured is called the A-weighted sound level (dBA). In practice, the level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve. Typical A-levels measured in the environment and in industry are shown in Table 3-13 for different types of noise.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes noise from multiple distant sources which combine to create a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors, L_{01}, L_{10}, L_{50}, and L_{90}, are commonly used. They are the A-weighted noise levels equaled or exceeded during 1%, 10%, 50%, and 90% of a stated time period. A single number descriptor called the L_{eq} is also widely used. The L_{eq} is the average A-weighted noise level during a stated period of time.

In determining the daily level of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than the daytime levels. However, most household noise also decreases at night and exterior noise becomes very noticeable. Further, most people sleep at night and are very sensitive to noise intrusion. The descriptor L_{dn} (day/night average sound level), accounts for human sensitivity to nighttime noise levels. L_{dn} divides the 24-hour day into the daytime of 7:00 AM to 10:00 PM and the nighttime of 10:00 PM to 7:00 AM. The nighttime noise level is weighted 10 dB higher than the daytime noise level. The Community Noise Equivalent Level (CNEL) is another 24-hour average which includes both an evening and nighttime weighting.

TABLE 3-12
DEFINITIONS OF ACOUSTICAL TERMS

TERM	DEFINITIONS
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels in the night between 10:00 pm and 7:00 am.
Day/Night Noise Level, L_{dn}	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

TABLE 3-13
TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY

A-Weighted Sound Level in Decibels	At a Given Distance From Noise Source	Noise Environments	Subjective Impression
140			
130	Civil Defense Siren (100')		
120	Jet Takeoff (200')		Pain Threshold
110		Rock Music Concert	
100	Pile Driver (50')		Very Loud
	Ambulance Siren (100')		
90		Boiler Room	
	Freight Cars (50')	Printing Press Plant	
80	Pneumatic Drill (50')	In Kitchen With Garbage Disposal Running	
	Freeway (100')		
70			Moderately Loud
60	Vacuum Cleaner (10')	Data Processing Center	
		Department Store	
50	Light Traffic (100')	Private Business Office	
	Large Transformer (200')		
40			Quiet
30	Soft Whisper (5')	Quiet Bedroom	
20		Recording Studio	
10			Threshold of Hearing
0			

The effects of noise on people can be listed in three general categories:

- subjective effects of annoyance, nuisance, dissatisfaction
- interference with activities such as speech, sleep, learning
- physiological effects such as startling, hearing loss

The levels associated with environmental noise, in almost every case, produce effects only in the first two categories. Workers in industrial plants can experience noise in the last category. Unfortunately, there is as yet no completely satisfactory way to measure the subjective effects of noise, or of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance, and habituation to noise over differing individual past experiences with noise.

Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of the existing environment to which one has adapted: the so-called "ambient" environmental noise. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be to its hearers.

With regard to increases in A-weighted noise level, knowledge of the following relationships will be helpful in understanding this analysis.

- Except in carefully controlled laboratory experiments, a change of 1 dB cannot be perceived.
- Outside of the laboratory, a 3 dB change is considered a just-perceivable difference.
- A change in level of at least 5 dB is required before any noticeable change in community response would be expected.
- A 10 dB change is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse change in community response.

b. Regulatory Background

i. State of California

There are no state laws directly applicable in the assessment of noise associated with new projects. The California Environmental Quality Act (CEQA) includes qualitative guidelines for determining the significance of adverse environmental noise impacts. According to CEQA, a project will normally have a significant effect on the environment if it will "(a) conflict with adopted environmental plans and goals of the community where it is located; or ... (p) increase substantially the noise levels for adjoining areas." (CEQA Guidelines, Appendix G).

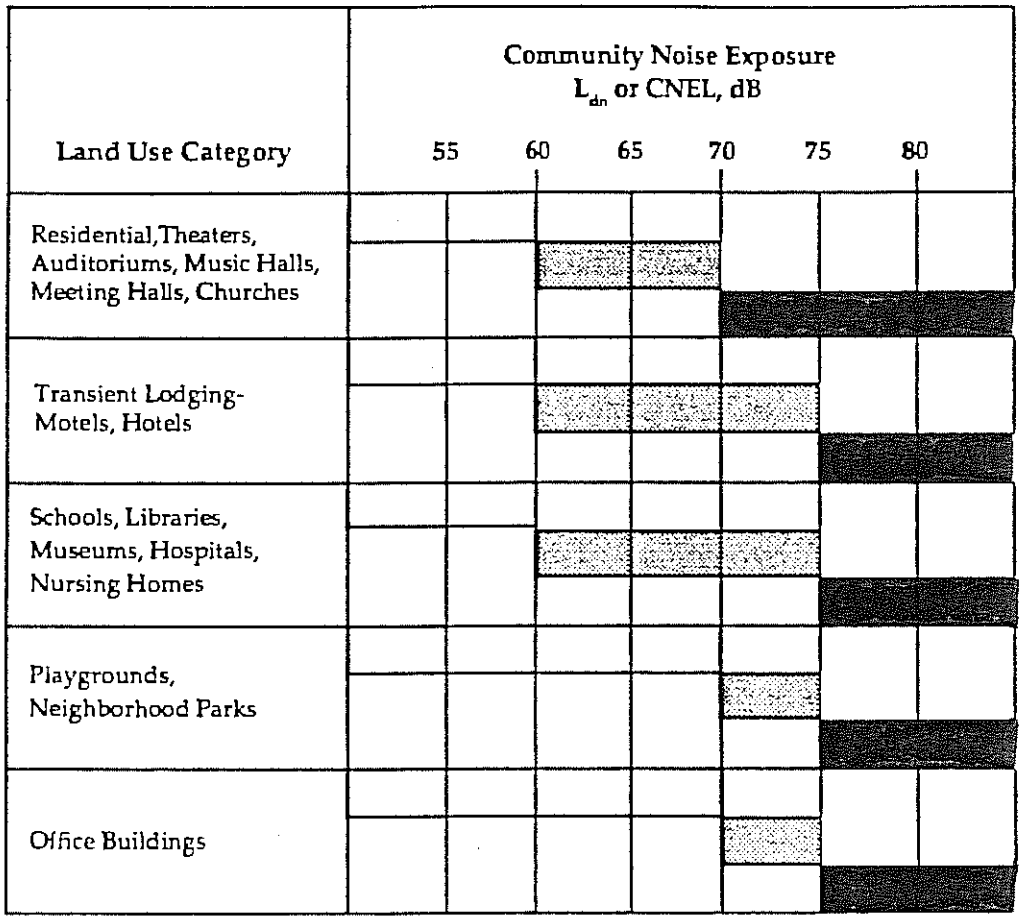
(ii) City of Turlock

The City of Turlock, in its General Plan Noise Element, establishes policies and guidelines related to noise and land use planning. The City's noise and land use compatibility guidelines are shown in Figure 9. These guidelines are used to assess the compatibility of a particular land use with the noise environment at the site where it would be located. A particular site, depending on its noise exposure, could be considered "acceptable", "conditionally acceptable", or "unacceptable" for a particular land use. For example, residential land uses are shown in the table to be "acceptable" for sites exposed to noise levels below an L_{dn} of 60 dB, "conditionally acceptable" where the L_{dn} is between 60 dB and 70 dB, and "unacceptable" where the L_{dn} is greater than 70 dB. The Noise Element provides a further explanation of these guidelines and this information is reproduced in Table 3-14. The Noise Element has also adopted guidelines for projects affected by or including non-transportation noise sources. These guidelines are reproduced in Table 3-15. Policies 8.4-i and 8.4-j in the Noise Element stipulate compliance with these limits and outline requirements for mitigating noise levels which would exceed these limits.

c. Existing Noise Environment

The Northwest Triangle Specific Plan Area is shown in Figure 10. The project area was visited on November 2 and 3, 1994. The major noise sources in the study area are Highway 99 and the Southern Pacific Railroad. Noise levels were monitored over a continuous 24-hour period adjacent to these noise sources at Locations A and B, respectively. Short-term spot checks of the existing daytime noise environment were made by conducting 10-minute measurements along local streets which would be expected to carry project traffic and at existing sensitive receptors which border the project area. These measurements were conducted at Locations 1 through 5. The results of the long-term measurements are shown in Figures 11, 12 and 13. The results of the short-term measurements are shown in Table 3-16.

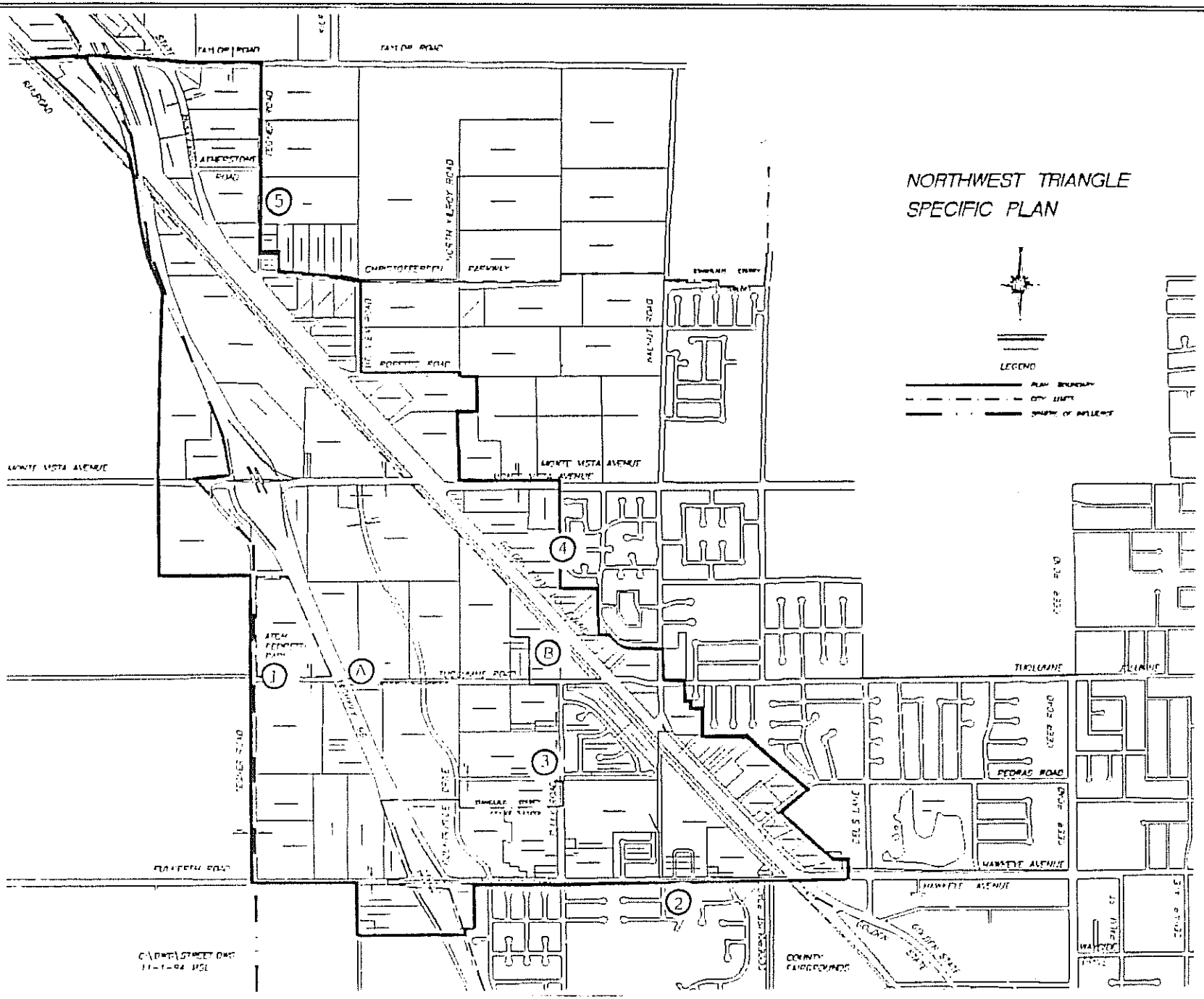
Highway 99 is the dominant noise source in the western portion of the study area. Continuously heavy truck traffic results in a fairly steady noise level during both daytime and nighttime. In a typical traffic noise environment where traffic drops off at night the L_{dn} is about equal to the hourly average noise level (L_{eq}) in the noisiest hour. This is not the case near Highway 99 because of the high noise levels at night. The L_{dn} is about 4 decibels higher than the noisiest hour L_{eq}. By contrast, the measured noise levels adjacent to the railroad fluctuate from hour to hour depending upon whether or not a train has passed by. Noise levels along this stretch of railroad are elevated due to the nearly continuous whistle blowing required by the grade crossings in the study area. Figure 13 shows the maximum noise level resulting from the trains measured during the 24-hour period and reflects the high noise levels of the train whistles.



	ACCEPTABLE	Specified land use is satisfactory. No noise mitigation measures are required.
	CONDITIONALLY ACCEPTABLE	Use should be permitted only after careful study and inclusion of protective measures as needed to satisfy the policies of the Noise Element.
	UNACCEPTABLE	Development is usually not feasible in accordance with the goals of the Noise Element.

Source: Turlock Noise Element of the General Plan

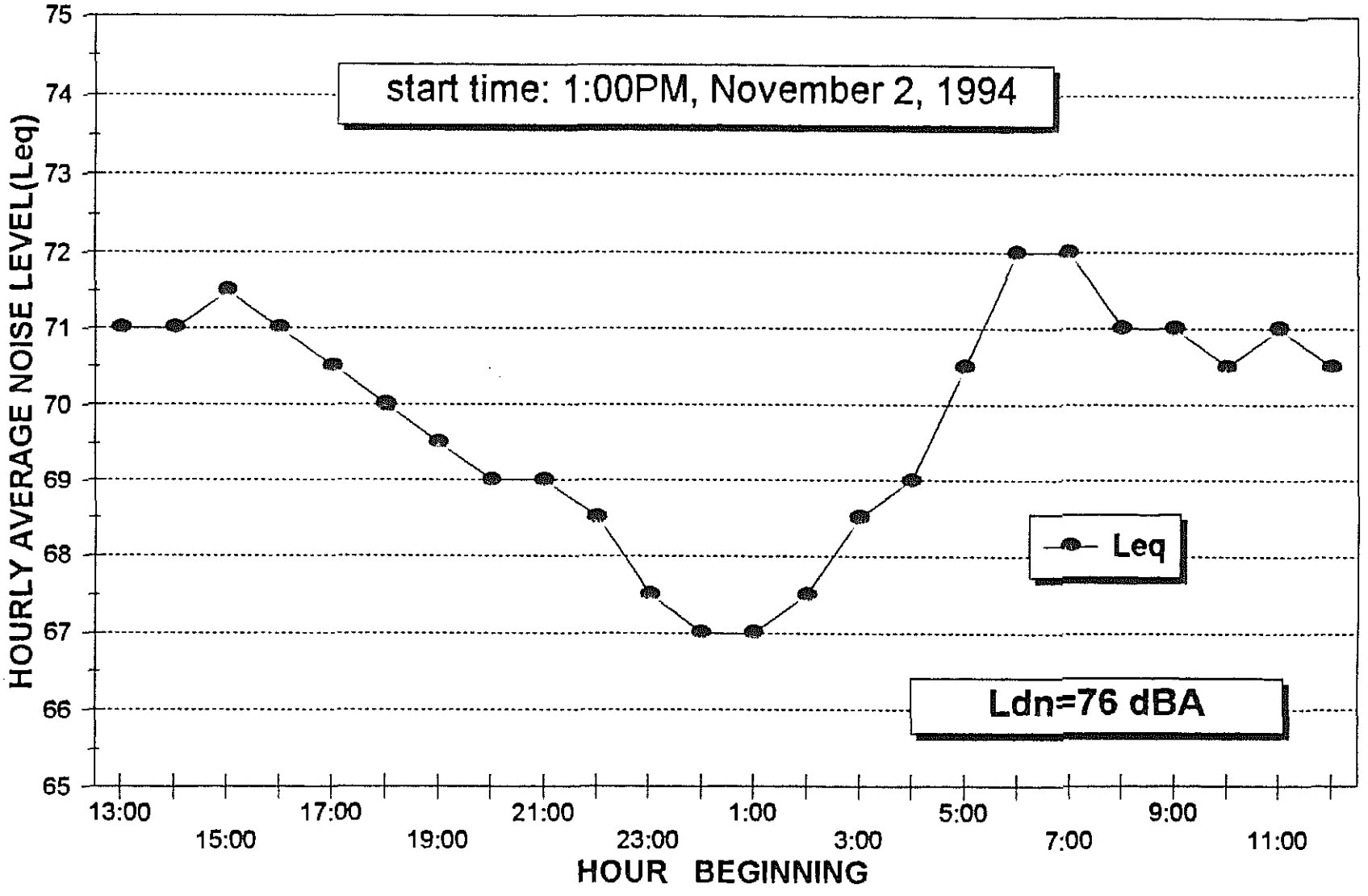
Turlock Land Use Compatibility Guidelines | **FIGURE 9**



Noise Measurement Locations | **FIGURE 10**

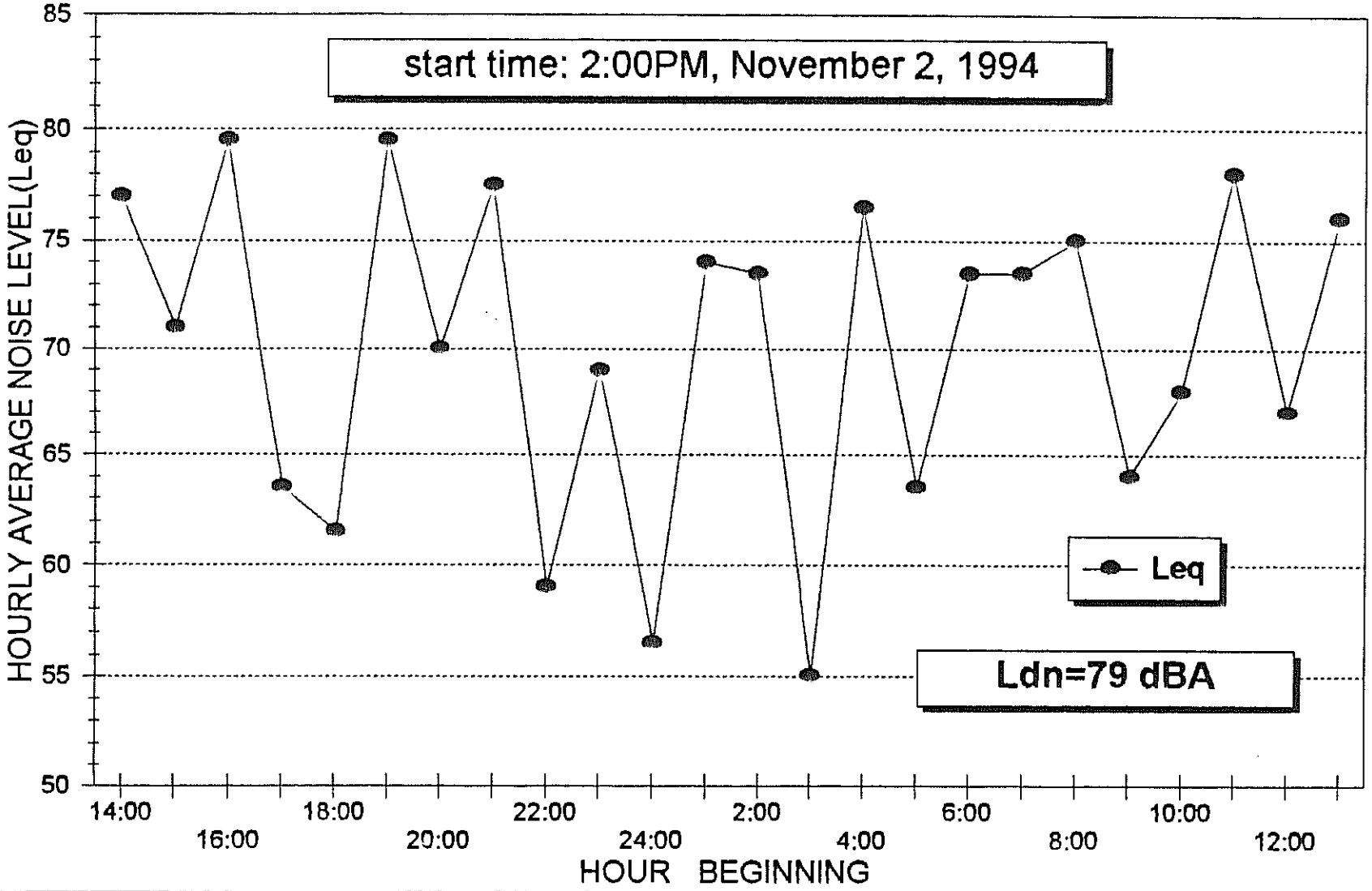
ILLINGWORTH & RODKIN, INC./Acoustical Engineers

Location A : 250 ft. from the centerline of Hwy. 99

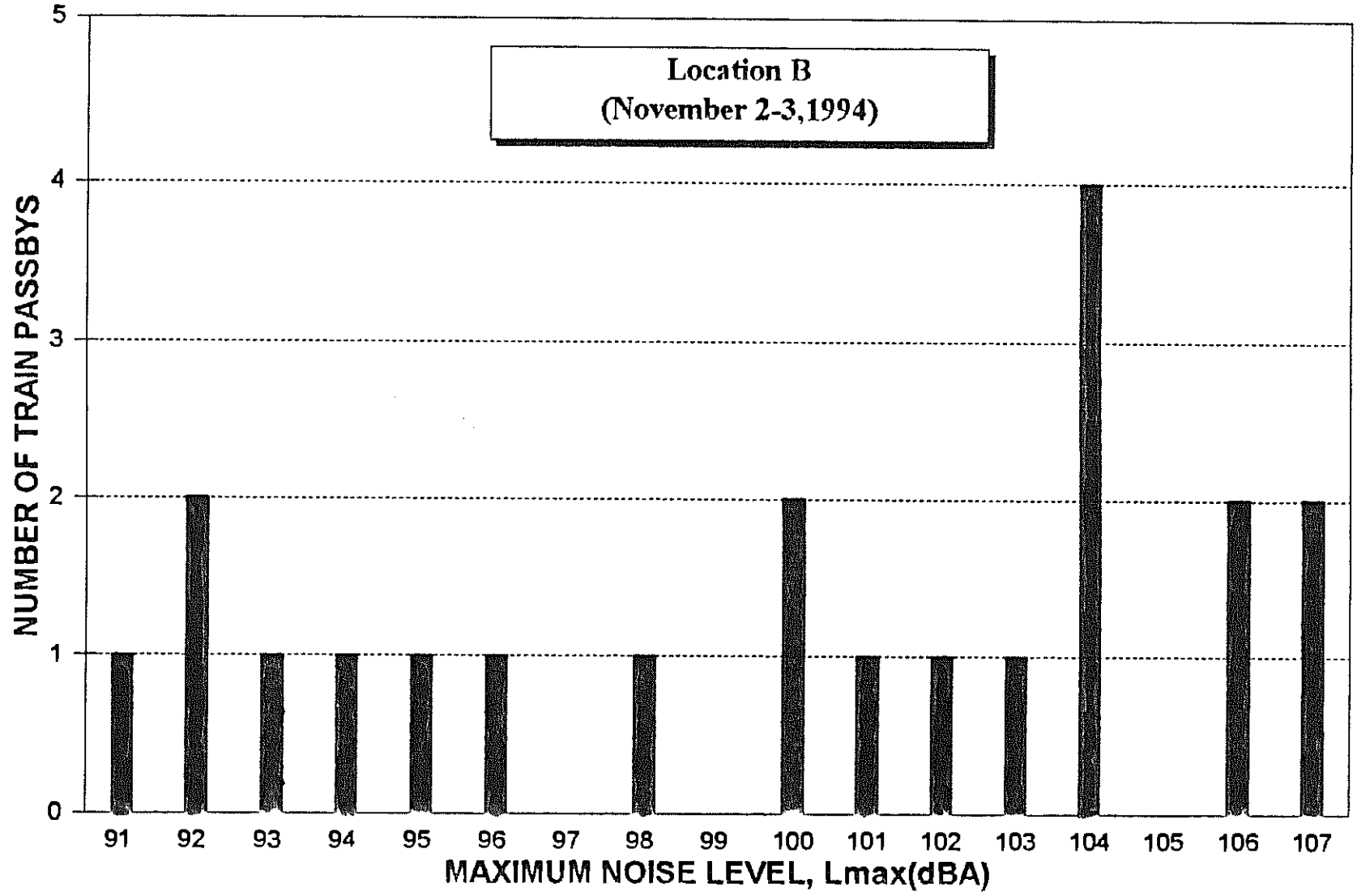


ILLINGWORTH & RODKIN, INC. *ACOUSTICAL ENGINEERS*	**Results of the continuous 24-hour Noise Measurement at Location A**	**Figure 11**

Location B : 40 ft. from the centerline of the Southern Pacific Railroad; 140 ft. from the centerline of Golden State Blvd.



ILLINGWORTH & RODKIN, INC. ACOUSTICAL ENGINEERS	**Results of the continuous 24-hour Noise Measurement at Location B**	**Figure 12**



ILLINGWORTH & RODKIN, INC. *ACOUSTICAL ENGINEERS*	**Number of trains and the Maximum Noise Levels they generated during the 24-hour Monitoring.**	**Figure 13**

Land Use	Outdoor Activity[1] Areas L_{dn}/CNEL, dB	Interior Spaces	
		L_{dn}/CNEL, dB	L_{eq}, dB[2]
Residential	60[a]	45	--
Transient Lodging	60[a]	45	--
Hospitals, Nursing Homes	60[a]	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls	60[a]	--	40
Office Buildings	70[b]	--	45
Schools, Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70[b]	--	--

[1] Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving use.

[2] As determined for a typical worst-case hour during periods of use.

[a] Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

[b] Where it is not possible to reduce noise in outdoor activity areas to 70 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 75 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Source: Turlock Noise Element of the General Plan

Maximum Allowable Noise Exposure Transportation Noise Sources

TABLE 3-14

Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10p.m.-7 a.m.)
Hourly L_{eq}, dB	55	45
Maximum Level, dB	75	65

Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.

Source: Turlock Noise Element of the General Plan

Noise Level Performance Standards for Projects Affected by or Including Non-Transportation Sources

TABLE 3-15

TABLE 3-16
10-MINUTE NOISE MEASUREMENTS NOVEMBER 3, 1994 (See Figure 2)

Location	Description	Start Time	L_{eq} [1]	L_{01} [2]	L_{10}	L_{50}	L_{90}
1	Tegner Rd. at Tuolumne Rd.; mostly Hwy 99 distant traffic noise	2:30 pm	57	61	58	56	55
2	Fulkerth Rd. east of Edgewater; 60 ft. from the centerline, mostly local traffic noise	2:58 pm	68	74	72	67	58
3	Tully Rd. north of Noble; 100 ft from the centerline; noise from traffic on Tully Rd. & Hwy 99	3:15 pm	54	62	56	52	51
4	Filmore Way at Garfield Ln.; east of Golden State Blvd. mostly distant traffic noise from Golden State Blvd.	4:02 pm	50	64	48	47	45
5	Tegner Rd. south of Atherstone Rd.; mostly Hwy 99 traffic noise	4:15 pm	62	64	63	62	60

L_{eq} The average A-weighted noise level during the measurement period.

L_{01}, L_{10}, L_{50}, L_{90}, The A-weighted noise levels that are exceeded during the measurement period 01, 10-, 50, and 90 percent of the time, respectively.

The major local streets in the area are Fulkerth Road, Golden State Boulevard, and Monte Vista Avenue. Existing residential neighborhoods adjoin Fulkerth Road and border the eastern edge of the study area between Monte Vista Avenue and near Fulkerth Road. Short-term noise levels monitored throughout the study reflect the variation in noise levels in the area, with the highest noise levels along the major roadways such as Fulkerth Road (Location 2) and lowest noise levels in the neighborhoods east of the study area (Location 4).

3.E.2. CRITERIA FOR DETERMINING SIGNIFICANCE

a. Methodology

The Noise Impact Assessment identifies and quantifies, to the extent possible, noise impacts resulting from the proposed project and cumulative development in the study area. The Noise Impact Assessment relies upon the existing baseline conditions discussed in the Setting Section, calculations of future traffic noise levels along the roadway network affected by project generated traffic and traffic generated by development elsewhere in the city, and construction noise levels taken from literature. Noise impacts are assessed by comparing future noise levels to existing noise levels and to applicable state and local guidelines.

b. Standards of Significance

The three potential noise impacts resulting from implementation of the Specific Plan would be the potential incompatibility of noise-sensitive land uses with the existing or future noise environment, a significant increase in noise at existing residences in the area, and a short-term increase in noise during construction. The Goals and Policies contained in the City of Turlock's Noise Element were previously discussed in the regulatory background section. Proposed land uses within areas which would have an existing or future noise level exceeding that considered "acceptable" for the specific land use (eg. 60-L_{dn} for residential areas) would be considered a significant impact.

If increased traffic on the roadway network results in an increase in the L_{dn} of 3 dBA or more at a residence this would be considered a significant impact. A 3 dBA increase in the L_{dn} results from approximately a doubling in traffic volume.

Short-term impacts resulting during the construction phase are considered significant under the following conditions: construction equipment noise levels exceeding 60 dBA during the daytime or 55 dBA during the nighttime outside of a residence, and also exceeding existing ambient noise levels.

3.E.3. IMPACTS

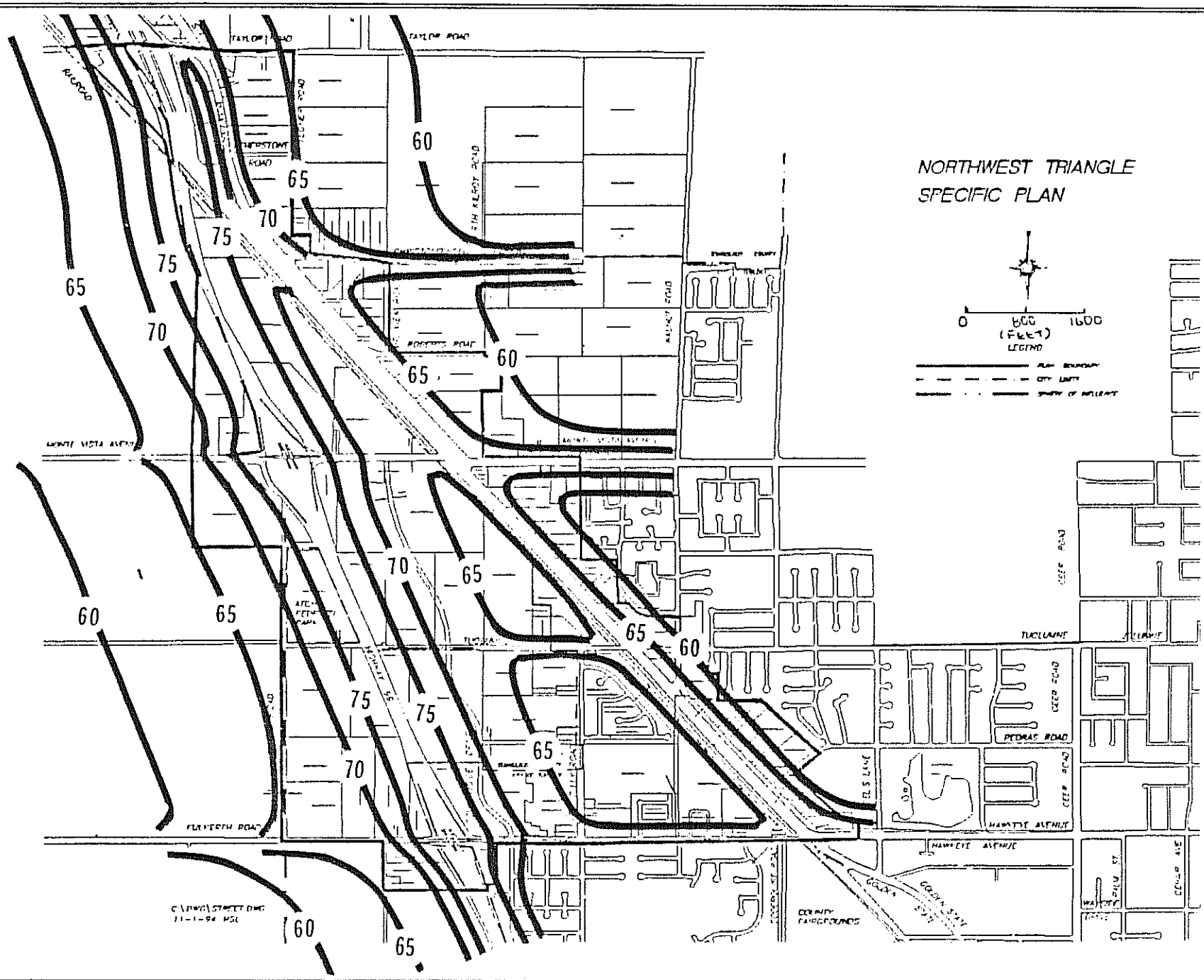
a. Noise and Land Use Compatibility

The Northwest Triangle Specific Plan reflects a sensitivity to noise and land use compatibility. With the exception of residential development contiguous to a portion of the Southern Pacific Railroad tracks north of Tuolumne Road, the plan proposes non-noise sensitive land uses adjacent to the major noise sources, the railroad and Highway 99. Specific Plan principles requiring subdivision design that sets back residences and private outdoor space 200' from the railroad tracks serves to reduce the potential for railroad noise and ground vibration impacts on new residences.

Future noise exposure in the Specific Plan area was calculated from cumulative traffic projections developed for the EIR. Figure 14 shows the future L_{dn} noise exposure contours for roadway traffic. Figure 15 shows the railroad noise exposure contours. The data are shown in tabular form in Table 3-17. A 200 foot setback for buildings as required by the Specific Plan is typically sufficient to control ground-borne vibration. The proposed setbacks, as well as additional mitigation measures, are discussed in the Mitigation Section. Residential development proposed along Countryside Drive, Tuolumne Road, Fulkerth Road and Tully Road would potentially be exposed to noise levels above 60 L_{dn}. This is a potentially significant noise impact.

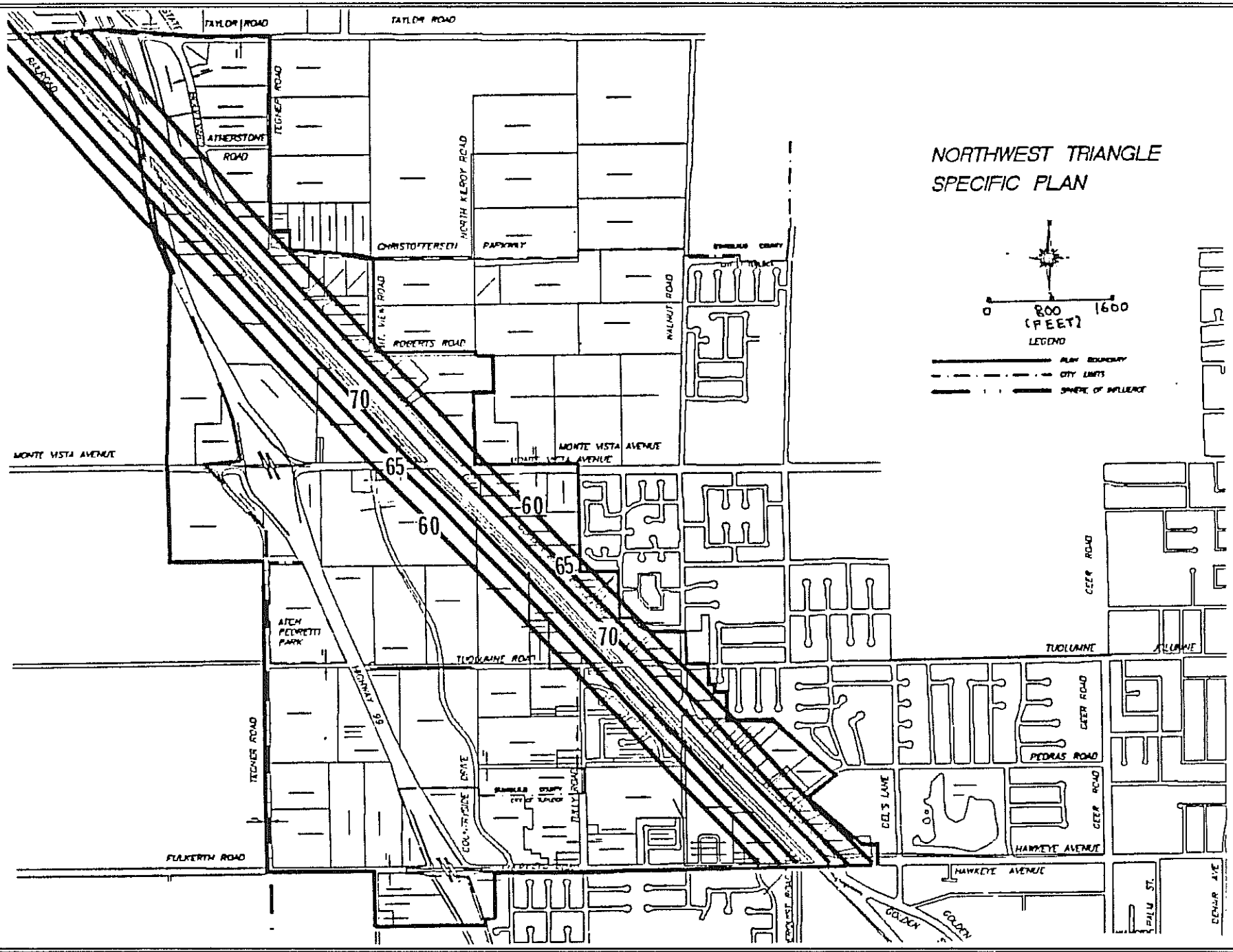
b. Traffic Noise Increases

Traffic noise resulting from the proposed project and cumulative development were analyzed along roadways with existing residential development adjacent to them. Noise levels along Fulkerth Road between Highway 99 and Del's Lane are calculated to increase 2 dBA. A similar 2 dBA increase is predicted along Tully Road. These increases would not be substantial and would not result in significant noise impacts. Noise levels along Monte Vista Avenue between Golden State Boulevard and Walnut Road are calculated to increase 4 dBA. A 4 dBA increase at existing residences would be substantial and would result in a significant noise impact.



Future Noise Contours (L_{dn}) for Major Roadways | **FIGURE 14**

ILLINGWORTH & RODKIN, INC./Acoustical Engineers



Noise Contours (L_{dn}) for the Southern Pacific Railroad | **FIGURE 15**

ILLINGWORTH & RODKIN, INC./Acoustical Engineers

TABLE 3-17
BUILDOUT YEAR NOISE CONTROUR DISTANCES
FOR GROUND TRANSPORTATION SOURCES

Roadway	L_{dn} @ 50 ft.	Distance from the roadway centerline to noise contour (feet)			
		75-L_{dn}	70-L_{dn}	65-L_{dn}	60-L_{dn}
CHRISTOFFERSEN PKWY.					
Golden State-Mt. View	68	0	30	100	230
COUNTRYSIDE DR.					
Monte Vista-Tuolumne	67	0	0	80	180
Tuolumne-Pedras	66	0	0	70	160
Pedras-Fulkerth	65	0	0	50	140
FULKERTH RD.					
Tegner-Hwy.99	69	0	40	120	260
Hwy. 99-Del's Ln	72	20	80	190	400
GOLDEN STATE BLVD.					
Taylor-Monte Vista	73	30	100	220	470
Monte Vista-Tuolumne	71	0	60	160	340
Tuolumne-Fulkerth	73	30	100	210	460
HIGHWAY 99					
Taylor-Fulkerth	87	400	850	1600	3150
Fulkerth-W. Main	86	250	550	1150	2200
MONTE VISTA AVE.					
Washington-Tegner	65	0	0	60	140
Tegner-Hwy.99	70	0	50	130	290
Hwy. 99-Walnut	73	30	90	200	440
TEGNER RD.					
Taylor-Christoffersen	63	0	0	30	100
Monte Vista-Fulkerth	66	0	0	70	160
TULLY RD.					
Tuolumne-Fulkerth	61	0	0	0	60
TUOLUMNE RD.					
West of Countryside Dr.	61	0	0	0	60
Countryside-Golden State	68	0	30	90	200
Golden State-Del's Ln.	63	0	0	30	100
Southern Pacific Railroad[3]	77	70	170	330	600

Based on the results of the 24-hour noise measurement taken at Location B; assumes existing activity level since no data on future operations is available.

c. Construction Noise Impacts

Construction of the proposed developments would involve grading and utility work, foundation and building erection activities, and grading and paving. These activities would require the use of hammers, saws, nailguns, graders, scrapers, front-loaders, pavers, trucks and other ancillary equipment associated with construction. Trucks would be required to deliver and remove material from the site and to pump concrete. Typical noise levels resulting from construction equipment are shown in Table 3-18. Pile drivers would not be required for the project. During the various stages of construction, average noise levels could be as high as 75 dBA when measured 50 feet from the center of construction activity. Construction activities within 300 feet of existing residences could at times exceed the 60 dBA daytime limit, resulting in a significant short-term impact. Construction noise will be subject to the requirements of the City's Noise Ordinance, which will result in impacts being limited to a level of insignificance.

3.E.4. MITIGATION

a. Noise and Land Use Compatibility

(1) A combination of open-space buffer zones and/or noise barriers (or soundwalls) along the roadways should be used to reduce the L_{dn} to 60 dBA or less. The specific heights and limits of noise barriers or open-space buffer zones cannot be determined until preparation of residential site plans. As a general guideline a 6- to 8-foot high soundwall would be required to provide 5 dBA of noise reduction, and a 10- to 12-foot high soundwall would be required to provide the 10 dBA of noise reduction. The noise barrier could be an earth berm, an earth berm with a solid concrete or wood wall on top of it, or a typical concrete or wood soundwall. To be effective as a noise barrier the wall must have a minimum surface weight of three to four pounds per square foot and be constructed air-tight over the face and at the base of the wall.

All single- and multi-family housing located within the 60 dBA L_{dn} contour shall be designed such that the indoor L_{dn} shall not exceed 45 dBA. The designs for the housing shall be reviewed by a qualified acoustical engineer and the necessary noise control treatments incorporated into the design. All such units shall be provided with forced-air air-conditioning and heating systems so that windows may be kept closed at the discretion of the occupants for noise control. Additional noise control treatments could include sound-rated windows and doors. A report shall be prepared following the requirements of Title 24, Part II of the Administrative Code for all multi-family housing within the 60 dBA contour distances.

Projected noise levels along Tuolumne Road between Countryside Drive and Tully Road are in the range of 65-70 dB L_{dn} at the likely residential setbacks. If houses front on the roadway, the front yards, which are less sensitive to noise than backyards, would be exposed to noise levels above the City's guidelines. The combination of distance to the backyards and shielding provided by the houses would reduce the noise levels to less than 60 dB L_{dn} in the backyards.

The front facades of the houses would be exposed to noise levels between 65 and 70 dB L_{dn}. Necessary noise control treatments shall be included in the design to achieve the 45 dB L_{dn} interior goal. Standard building elements usually provide sufficient noise level reduction. Unusual designs, including large glazing elements or corner rooms with more glazing area exposed to the roadway, may require sound-rated windows. All residential units should be provided with forced-air heating and air conditioning so that windows may be closed at the discretion of residents to control noise intrusion.

(2) No residential development will be located within 200 feet of the railroad tracks, consistent with Specific Plan principles. All single- and multi-family housing located within 600 feet of the railroad tracks shall be reviewed to insure that the designs would result in exterior and interior noise levels in conformance with City and State guidelines. The designs for the housing shall be reviewed by a qualified acoustical engineer and the necessary noise control treatments incorporated into the design. All such units shall be provided with forced-air heating and air-conditioning and heating systems so that windows may be kept closed for noise control at the discretion of the occupants. Additional noise control treatments could include sound-rated windows and doors. This information shall be included in the acoustical reports required above.

b. Traffic Noise Increases

The 4 dBA traffic noise increase along Monte Vista Avenue between Golden State Blvd. and Walnut Road could be reduced to a level of insignificance by reducing the speed along Monte Vista Avenue by 5-10 mph. Average noise levels are decreased about 1.5 decibels for every 5 mph reduction in the speed. However, because of the small number of residences affected and the importance of maintaining traffic speed to avoid increased congestion, this mitigation measure is not imposed by the EIR.

3.E.5. SUMMARY OF IMPACTS WITH MITIGATION

The impact of the 4 dBA traffic noise increase on existing residences along Monte Vista Avenue between Golden State Boulevard and Walnut Road would be a significant adverse impact.

4 DESCRIPTION AND ANALYSIS OF ALTERNATIVES

4.A APPROACH TO ALTERNATIVES

Consistent with CEQA statute and guidelines, the alternatives to the proposed project that are described and analyzed in this section of the EIR were designed with two objectives in mind: (1) achieving the same overall objectives as the proposed project (see Section 1.D.) and (2) eliminating or reducing adverse environmental impacts identified in Section 3. Each of the four alternatives discussed below is first described and then analyzed relative to these two objectives. Unfortunately, none of the alternatives achieves the latter objective without some level of compromise of the former. Therefore, judgement has to be used in comparing the alternatives to each other and to the proposed project in order to assess the relative importance of different trade-offs. At the conclusion of this section, an environmentally preferred alternative is selected from those described, as required by CEQA. Some readers may disagree with the selection, if their assessment of the relative importance of different project objectives and different impact areas is different from that of the EIR authors.

4.B AGRICULTURAL PROTECTION ALTERNATIVE

4.B.1. Description of Alternative

This alternative would reduce impacts on agricultural production during the Plan buildout period while generally achieving Specific Plan objectives. The Specific Plan diagram or the buildout state represented by the Plan would not be altered. However, a new set of principles designed to protect agricultural activities during the interim period prior to buildout would be added to the Specific Plan text. Principles added would be as follows:

- Require residential development within the Specific Plan boundaries to proceed from south to north, to ensure the viability of agricultural operations north of Tuolomne Road for as long as possible.

- Prohibit development of parcels in the Specific Plan area west of Highway 99 until at least 80 percent of the land east of Highway 99 has been annexed and developed. (At this time, the figure is about 30 percent).

- Support annexation proposals only at such time as specific proposals for development consistent with the Specific Plan are brought forward by project proponents. (Draft Specific Plan Principle 7.2.g, calling for a unified annexation of all properties designated for urbanization in the Specific Plan area, would be deleted)

4.B.2. Effectiveness of Alternative in Reducing Significant Impacts

This alternative addresses only one area of significant impacts -- agricultural productivity. Since it is an issue of regional importance, it is a focus of one of the alternatives. The principles above focus on retaining agriculture during the interim period prior to Specific Plan buildout -- they do not alter the reduction in agricultural activity that will have occurred when buildout is reached. However, they are likely to contribute to retaining land in agricultural use for a longer time period than would likely occur without the addition of these controls. Given the long buildout period anticipated, this may be judged to be a worthwhile reduction in the significance of project impacts.

Even with the addition of the principles discussed above, agricultural productivity would remain an area of significant adverse impact, because of the long-term, cumulative effect of the conversion of over 400 acres of agricultural land to urban uses.

4.B.3. Consistency with Project Objectives

While this alternative is generally consistent with project objectives, restrictive phasing policies would clash to some extent with the objective of "allowing development to proceed without unnecessary delay." On the other hand, some might view the delay imposed by the agricultural protection principles as necessary to minimize significant adverse project impacts.

4.C RESIDENTIAL / HEAVY COMMERCIAL EMPHASIS ALTERNATIVE

4.C.1. Description of Alternative

The objective of this alternative is to reduce traffic and air quality impacts while achieving Specific Plan objectives. Implementation of this alternative would require General Plan and Specific Plan diagram revisions to change designations of land north of Tuolumne and south of Monte Vista from commercial to residential, and from community commercial to heavy commercial use. Sufficient land would be retained in the Community Commercial area for a large concentration of retail uses. The following General Plan and Specific Plan land use diagram changes would be required to implement this alternative:

- the portion of assessor's parcel 23-06-50 east of Countryside would be re-designated residential (24 acres) from heavy commercial

- the portion of the same parcel west of Countryside would be re-designated heavy commercial (20 acres), as would 23-06-51 (1.7 acres), 23-06-03 (11.97 acres) and 23-06-04 (19 acres; portion west of Countryside).

The result of these changes would be an increase of 24 acres of low density residential development (105 units, approximately 290 persons), a decrease of 52.7 acres of community commercial (approximately 527,700 s.f.), and a net increase of 28.7 acres of heavy commercial (approximately 409,500 s.f.).

4.C.2. Effectiveness of Alternative in Reducing Significant Impacts

This alternative is designed to reduce impacts relating to vehicle trip generation: specifically, traffic, and air quality (while no significant impacts associated with traffic are identified in Section 3 of the EIR, a reduction in traffic would certainly be welcome). Automobile trip generation would be reduced due to two separate effects. First, the net change would be a reduction in total trip generation based on the use mix in the Specific Plan area. Second, the increase in housing in the Northwest Triangle would increase the potential for intra-project trips, i.e., trips with both an origin and destination in the Specific Plan area. A third impact area, noise, would be reduced somewhat because of the reduced level of auto trips but on balance the noise effects of the alternative would not compare favorably with the proposed project because a larger number of residences would be located adjoining the railroad tracks and adjoining Monte Vista Avenue, a major arterial.

Regarding air quality impacts, the analysis in Section 3 examined three types of impacts: construction impacts, local long-term air quality impacts, and regional permanent air quality impacts. The analysis concludes that construction impacts can be mitigated to a level of insignificance and that local long-term air quality impacts (carbon monoxide concentrations) are less-than-significant with no mitigation required. However, regional permanent air quality impacts are judged to be a significant and unavoidable cumulative impact. As can be seen from the information in Table 3-9, avoiding this impact would require a reduction in project emissions of approximately 90% of both ROG and NOx emissions. A reduction of this magnitude could not be obtained without much more significant changes to the project, resulting in a dramatic decrease in development potential and preventing attainment of project objectives. Therefore, though this alternative would reduce trip generation, and especially regional trip generation, it would not eliminate the significant impacts to air quality identified in Section 3.

4.C.3. Consistency with Project Objectives

This alternative would be in conflict with the objective of General Plan implementation with limited amendments. Both General Plan and Specific Plan land use diagrams would require significant changes in order to implement the alternative as described. No General Plan text changes other than those required as part of the proposed Specific Plan would be required. Tables in the Specific Plan would require revision to reflect changes in development capacity, in demand for public services, etc.

4.D COMBINATION ALTERNATIVE: AGRICULTURAL PROTECTION AND LAND USE CHANGES

4.D.1. Description of Alternative

This alternative would combine the alternatives described above in order to reduce three areas of project impacts: agricultural productivity, air quality, and traffic. The mitigation measures included in the Agricultural Protection Alternative would affect the way development occurs, while the measures in the Residential / Heavy Commercial Emphasis alternative would affect the area's ultimate development pattern.

The Combination Alternative includes all of the Principles included in the Agricultural Protection Alternative and all of the map changes included in the Residential / Heavy Commercial Emphasis Alternative.

4.D.2. Effectiveness of Alternative in Reducing Significant Impacts

The Combination Alternative reduces impacts in two of the three areas analyzed in detail in the EIR: agriculture and air quality, but not to levels of insignificance. Noise impacts could be greater than under the proposed project, as discussed above in Section 4.C. Reduction of agricultural impacts are limited to mitigation of near and medium-term impacts, because the total area that would ultimately be urbanized under the alternative would be the same as with the proposed project or either of the above alternatives.

4.D.3. Consistency with Project Objectives

Of the three alternatives, the Combination Alternative is least consistent with project objectives. When the two alternatives described above are combined, the project as a whole diverges further from the proposed project. As discussed above, the consistency issues are: (1) the extent to which restrictive phasing policies intended to protect agriculture might clash with the objective

of "allowing development to proceed without unnecessary delay," and (2) the need for map changes which would be in conflict with the objective of General Plan implementation with limited amendments.

4.E NO PROJECT ALTERNATIVE

No Project is sometimes equated with no development or no change from physical conditions existing at the time of EIR preparation. This is the base case against which the project is compared elsewhere in the EIR. No project" is defined here as development in the Northwest Triangle consistent with the General Plan, but without adoption of the Specific Plan.

Were development in the Northwest Triangle to proceed without adoption of the Specific Plan, several key aspects of the Plan which supplement the General Plan would not be put into place. There would be no assurance of adequate public facilities being constructed in a systematic and timely fashion, and no system for equitable cost-sharing. No urban design guidelines would be established for the area, and there would be no refinement of land use classifications beyond that in the City's Zoning Ordinance at the time of development approvals. However, because policies in the General Plan relating to natural resources and environmental protection would continue to apply, it is unlikely that environmental impacts would be worse under the no project alternative than with the proposed project. Impacts in the areas of agricultural productivity and regional air quality would not be mitigated beyond the levels anticipated with Specific Plan adoption.

4.F COMPARISON OF ALTERNATIVES AND SELECTION OF ENVIRONMENTALLY PREFERRED ALTERNATIVE

Table 4-1 on the following pages compares the alternatives by summarizing their characteristics and comparing their impacts to the impacts of the proposed project as described in Section 3 of the EIR.

Based on the comparison presented in the Table, the Combination Alternative, which includes the elements of both the Agricultural Protection Alternative and the Residential / Heavy Commercial Emphasis Alternative, is selected as the environmentally preferred alternative.

TABLE 4-1
COMPARISON OF ALTERNATIVES WITH PROPOSED PROJECT

Project / Alternative	Changes from Proposed Project	Impacts on Noise	Impacts on Air Quality	Impacts on Agricultural Productivity	Impacts on Traffic
Proposed Project	n.a.	not significant	significant regional impacts	significant interim and long term impacts	no significant impacts
Agricultural Protection Alternative	Adds principles to retain agricultural activity during buildout period	no change	no change	reduces interim impacts; no change in long term impacts	no change
Residential / Heavy Commercial Emphasis Alternative	Revises land use pattern to reduce community commercial, increase heavy commercial and residential acreage	decreases auto-related noise, increases exposure of residences to railroad noise (not significant after mitigation)	some reduction in emissions due to reduction in auto trips; significant regional impacts remain	no change from proposed project	some reductions in trip generation

TABLE 4-1
COMPARISON OF ALTERNATIVES WITH PROPOSED PROJECT

Project / Alternative	Changes from Proposed Project	Impacts on Noise	Impacts on Air Quality	Impacts on Agricultural Productivity	Impacts on Traffic
Combination Alternative	Adds principles from Agricultural Protection Alternative and map changes from Residential/Heavy Commercial Emphasis Alternative	decreases auto-related noise, increases exposure of residences to railroad noise (not significant after mitigation)	some reduction in emissions due to reduction in auto trips; significant regional impacts remain	reduces interim impacts; no change in long term impacts	some reductions in trip generation
No Project Alternative	Specific Plan would not be adopted; development would proceed consistent with General Plan	No change (assuming noise mitigation measures imposed through EIR process)	no change	no change	no change
notes: all impacts described here are after mitigation outlined in Section 3.					

5. IMPACT OVERVIEW

This section of the EIR includes CEQA-required discussions of two types of general project impacts.

5.A. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The significant irreversible environmental changes associated with the project are related to the conversion of land from agriculture and other open space uses to urban uses. Implications of this conversion are loss of agricultural productivity, a significant project-level and cumulative impact as discussed above and in Section 3, and change in the physical environment bringing changes relating to hydrology, aesthetics and habitat (these changes are not individually significant). Additionally, the use of energy resources during project construction represents an irreversible change.

5.B. GROWTH INDUCING IMPACTS OF THE PROPOSED ACTION

The project will foster economic and population growth, as described in the Specific Plan itself and in the EIR project description. These are direct impacts of the project, which has among its objectives facilitation of development consistent with the Turlock General Plan. Addition of housing consistent with the General Plan and the Specific Plan is essential to meeting the City's regional housing needs as discussed in the City's Housing Element. Addition of commercial activity responds to market demand as well as expressed desire by City residents for a wider range of business and shopping opportunities in Turlock.

The General Plan includes numerous policies designed to discourage residential growth west of Highway 99, and these policies are respected by the Specific Plan. The Stanislaus County Agricultural Element and other portions of the County General Plan support urban expansion in designated locations within approved Spheres of Influence adjoining existing urban areas (See discussion in Section 2 for additional detail), and these criteria are met by Specific Plan policies. These policies are important mechanisms to limit indirect growth-inducing impacts that might create pressure for development outside of the area designated for urbanization by the Turlock General Plan.

Impacts to public facilities and services that would be created by population and economic growth consistent with the project are considered in Chapters 4 and 5 of the Specific Plan. These portions of the Specific Plan, along with the Plan's Implementation Chapter, identify the

programs required to insure that public facilities and services will not be unacceptably degraded by the project's impacts.

The Specific Plan does not prescribe the timing of development consistent with its principles. Therefore, the Plan should not be considered to justify "current consumption" of resources (CEQA Guidelines Section 15126 (f)), but rather to establish the basis for future consumption of resources, the timing of which will depend on market forces and regulatory decisions.

5. IMPACT OVERVIEW

This section of the EIR includes CEQA-required discussions of two types of general project impacts.

5.A. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The significant irreversible environmental changes associated with the project are related to the conversion of land from agriculture and other open space uses to urban uses. Implications of this conversion are loss of agricultural productivity, a significant project-level and cumulative impact as discussed above and in Section 3, and change in the physical environment bringing changes relating to hydrology, aesthetics and habitat (these changes are not individually significant). Additionally, the use of energy resources during project construction represents an irreversible change.

5.B. GROWTH INDUCING IMPACTS OF THE PROPOSED ACTION

The project will foster economic and population growth, as described in the Specific Plan itself and in the EIR project description. These are direct impacts of the project, which has among its objectives facilitation of development consistent with the Turlock General Plan. Addition of housing consistent with the General Plan and the Specific Plan is essential to meeting the City's regional housing needs as discussed in the City's Housing Element. Addition of commercial activity responds to market demand as well as expressed desire by City residents for a wider range of business and shopping opportunities in Turlock.

The General Plan includes numerous policies designed to discourage residential growth west of Highway 99, and these policies are respected by the Specific Plan. The Stanislaus County Agricultural Element and other portions of the County General Plan support urban expansion in designated locations within approved Spheres of Influence adjoining existing urban areas (See discussion in Section 2 for additional detail), and these criteria are met by Specific Plan policies. These policies are important mechanisms to limit indirect growth-inducing impacts that might create pressure for development outside of the area designated for urbanization by the Turlock General Plan.

Impacts to public facilities and services that would be created by population and economic growth consistent with the project are considered in Chapters 4 and 5 of the Specific Plan. These portions of the Specific Plan, along with the Plan's Implementation Chapter, identify the

programs required to insure that public facilities and services will not be unacceptably degraded by the project's impacts.

The Specific Plan does not prescribe the timing of development consistent with its principles. Therefore, the Plan should not be considered to justify "current consumption" of resources (CEQA Guidelines Section 15126 (f)), but rather to establish the basis for future consumption of resources, the timing of which will depend on market forces and regulatory decisions.

6. MITIGATION MONITORING AND REPORTING

CEQA requires that when an agency adopts findings committing to implementation of mitigation measure after preparing an EIR, the agency "shall adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of approval in order to mitigate or avoid significant effects on the environment" (Public Resources Code section 21081.6). The City, as part of its CEQA implementation procedures, has established its approach to satisfying this requirement. A standard Mitigation Monitoring Checklist is used both for mitigation measures imposed through the EIR process and conditions of approval imposed during the process of development review and approvals. In fact, mitigation measures from the EIR must be adopted by the City as conditions of project approval for all relevant projects.

This section of the EIR reproduces from Section 3 text identifying required mitigation measures. The EIR imposes mitigation measures in relation to two types of impacts: air quality and noise. At the time of approval of any private or public development project to which these mitigation measures could reasonably be applied, they will be imposed as conditions of project approval. Each item will then be included on the City's Mitigation Monitoring Checklist, which for each item identifies the party responsible for implementation, the required time of implementation, the required completion time, the City department responsible for verification of implementation or ongoing monitoring, the type of monitoring required (e.g., one-time, continuous or periodic) and the date monitoring is complete.

6.A AIR QUALITY MITIGATION

The following measures will be implemented to further reduce project impacts:

- Require that all employment-generating uses within the Plan area participate with the San Joaquin Valley Air Pollution Control District, Stanislaus Area Association of Governments, and/or the San Joaquin Council of Governments' "Commute Connection", or successor(s), to establish appropriate site and project-specific trip reduction strategies. This can include, but is not limited to, ridesharing, van pooling, public transit incentives, telecommuting, and use of other alternative trip reduction strategies.

- Require that any gas stations locating within the Plan make provisions for a future Compressed Natural Gas fueling station.

- Require garages to be designed to allow installation of outlets to provide for charging of electric cars.

Monitoring of implementation of mitigation measures is the responsibility of the City of Turlock.

6.B NOISE MITIGATION: Noise and Land Use Compatibility

(1) A combination of open-space buffer zones and/or noise barriers (or soundwalls) along the roadways should be used to reduce the L_{dn} to 60 dBA or less. The specific heights and limits of noise barriers or open-space buffer zones cannot be determined until preparation of residential site plans. As a general guideline a 6- to 8-foot high soundwall would be required to provide 5 dBA of noise reduction, and a 10- to 12-foot high soundwall would be required to provide the 10 dBA of noise reduction. The noise barrier could be an earth berm, an earth berm with a solid concrete or wood wall on top of it, or a typical concrete or wood soundwall. To be effective as a noise barrier the wall must have a minimum surface weight of three to four pounds per square foot and be constructed air-tight over the face and at the base of the wall.

All single- and multi-family housing located within the 60 dBA L_{dn} contour shall be designed such that the indoor L_{dn} shall not exceed 45 dBA. The designs for the housing shall be reviewed by a qualified acoustical engineer and the necessary noise control treatments incorporated into the design. All such units shall be provided with forced-air air-conditioning and heating systems so that windows may be kept closed at the discretion of the occupants for noise control. Additional noise control treatments could include sound-rated windows and doors. A report shall be prepared following the requirements of Title 24, Part II of the Administrative Code for all multi-family housing within the 60 dBA contour distances.

Projected noise levels along Tuolumne Road between Countryside Drive and Tully Road are in the range of 65-70 dB L_{dn} at the likely residential setbacks. If houses front on the roadway, the front yards, which are less sensitive to noise than backyards, would be exposed to noise levels above the City's guidelines. The combination of distance to the backyards and shielding provided by the houses would reduce the noise levels to less than 60 dB L_{dn} in the backyards.

The front facades of the houses would be exposed to noise levels between 65 and 70 dB L_{dn}. Necessary noise control treatments shall be included in the design to achieve the 45 dB L_{dn} interior goal. Standard building elements usually provide sufficient noise level reduction. Unusual designs, including large glazing elements or corner rooms with more glazing area exposed to the roadway, may require sound-rated windows. All residential units should be provided with forced-air heating and air conditioning so that windows may be closed at the discretion of residents to control noise intrusion.

(2) No residential development will be located within 200 feet of the railroad tracks, consistent with Specific Plan principles. All single- and multi-family housing located within 600 feet of the railroad tracks shall be reviewed to insure that the designs would result in exterior and interior noise levels in conformance with City and State guidelines. The designs for the housing shall be reviewed by a qualified acoustical engineer and the necessary noise control treatments incorporated into the design. All such units shall be provided with forced-air heating and air-conditioning and heating systems so that windows may be kept closed for noise control at the discretion of the occupants. Additional noise control treatments could include sound-rated windows and doors.

Monitoring of implementation of mitigation measures is the responsibility of the City of Turlock.

APPENDIX A

Definitions of Use Classifications

APPENDIX A
DEFINITIONS OF USE CLASSIFICATIONS

Public and Semipublic Use Classifications

Clubs and Lodges. Meeting, recreational, or social facilities of a private or nonprofit organization primarily for use by members or guests. This classification includes social clubs and youth centers.

Cultural Institutions. Nonprofit institutions displaying or preserving objects of interest in one or more of the arts or sciences. This classification includes libraries, museums, and art galleries.

Day Care, General. Establishments providing non-medical care for seven or more persons on a less than 24-hour basis. This classification includes nursery schools and day-care centers for children or adults.

Emergency Health Care. Facilities providing emergency medical service with no provision for continuing care on an inpatient basis.

Government Offices. Administrative, clerical, or public contact offices of a government agency, including postal facilities, together with incidental storage and maintenance of vehicles.

Maintenance and Service Facilities. Facilities providing maintenance and repair services for vehicles and equipment, and materials storage areas. This classification includes corporation yards, equipment service centers, and similar facilities.

Park and Recreation Facilities. Parks, playgrounds, recreation facilities, and open spaces.

Public Safety Facilities. Facilities for public safety and emergency services (police and fire protection).

Utilities, Minor. Facilities necessary to support established uses involving only minor structures such as electrical distribution lines, underground water and sewer lines, and recycling collection facilities.

Commercial Use Classifications

Agricultural Services. Establishments primarily engaged in activities such as supplying soil preparation services, crop services, landscaping, horticultural services, veterinary and other animal services, and farm labor and management services.

Ambulance Services. Provision of emergency medical care or transportation, including incidental storage and maintenance of vehicles.

Animal Sales and Services. Businesses selling, grooming and boarding animals, and providing veterinary services.

Automobile Rentals. Rental of automobiles, including storage and incidental maintenance, but excluding maintenance requiring pneumatic lifts.

Automobile/Vehicle Repair. Repair of automobiles, trucks, motorcycles, motor homes, and recreational vehicles, including the sale, installation, and servicing of related equipment and parts. This classification includes auto repair shops, body and fender shops, transmission shops, wheel and brake shops, auto glass services, and tire sales and installation, but excludes vehicle dismantling or salvaging and tire retreading or recapping.

Automobile/Vehicle Sales and Rentals. Sale or rental of automobiles, motorcycles, trucks, and/or tractors, including storage and incidental maintenance.

Automobile Service Stations. Establishments engaged in the retail sale of gas, diesel fuel, lubricants, parts, and accessories. This classification includes incidental maintenance and minor repair of motor vehicles, but excludes body and fender work or major repair of automobiles, motorcycles, light and heavy trucks or other vehicles.

Automobile Washing. Washing, waxing, or cleaning of automobiles or similar light vehicles.

Banks and Savings and Loans. Financial institutions providing retail banking services.

Building Materials and Services. Retailing, wholesaling, or rental of building supplies or equipment. This classification includes lumber yards, tool and equipment sales or rental establishments, and building contractors' yards, but excludes establishments devoted principally to taxable retail sales to individuals for their own use. (This exclusion applies to large-scale "warehouse" stores, which are permitted in the Community Commercial district).

Business Services. Rendering services to business establishments on a fee or contract basis, including printing and copying, blueprint services, advertising and mailing, equipment rental and leasing, commercial research, development and testing, photo finishing, and model building.

Commercial Recreation. Provision of participant or spectator recreation. This classification includes sports stadiums and arenas, amusement parks, bowling alleys, billiard parlors, golf driving ranges, poolrooms, dance halls, ice/roller skating rinks, golf courses, miniature golf courses, scale-model courses, shooting galleries, tennis/racquetball courts, health/fitness clubs, pinball arcades or electronic games centers, card rooms, and fortune telling.

Commercial Entertainment. Provision of spectator entertainment. This classification includes live and motion picture theaters. *Facilities for commercial entertainment are encouraged to locate in Downtown Turlock.*

Communications Facilities. Broadcasting, recording, and other communication services accomplished through electronic or telephonic mechanisms. This classification includes radio, television, or recording studios; telephone switching centers; and cellular telephone facilities.

Eating and Drinking Establishments. Businesses serving prepared food or beverages for consumption on or off the premises. This classification includes restaurants, bars and fast-food facilities.

Food and Beverage Sales. Retail sales of food and beverages for off-site preparation and consumption. Typical uses include groceries, liquor stores, and retail bakeries.

Food Preparation. Businesses preparing and/or packaging food for off-site consumption, excluding those of an industrial character in terms of processes employed, waste produced, water used, and traffic generation. Uses include catering kitchens, bakeries with no or limited on-site retail sales, and small-scale specialty food production such as manufacture of candy, jams and jellies.

Hotels and Motels. Establishments offering lodging on a less-than-weekly basis. Motels may have kitchens in no more than 25 percent of guest units, and "suite" hotels may have kitchens in all units. This classification includes eating, drinking, and banquet services associated with the facility.

Laboratories. Establishments providing medical or dental laboratory services; or establishments providing photographic, analytical, or testing services.

Maintenance and Repair Services. Establishments providing appliance repair, office machine repair, janitorial services, indoor pest control, or building maintenance services. This classification excludes maintenance and repair of vehicles or boats.

Nurseries. Establishments in which all merchandise other than plants is kept within an enclosed building or a fully screened enclosure, and fertilizer of any type is stored and sold in package form only. This classification includes wholesale and retail nurseries and growing grounds offering plants for sale.

Offices, Business and Professional. Offices of firms or organizations providing professional, executive, management, or administrative services, such as architectural, engineering, graphic design, interior design, real estate, insurance, investment, legal, veterinary, and medical/dental offices. This classification includes medical/dental laboratories incidental to an office use, but excludes banks and savings and loan associations.

Personal Improvement Services. Provision of instructional services or facilities, including photography, fine arts, crafts, dance or music studios, driving schools, business and trade schools, and diet centers, reducing salons, and fitness studios.

Personal Services. Provision of recurrently needed services of a personal nature. This classification includes barber and beauty shops, seamstresses, tailors, shoe repair shops, dry-cleaning businesses (excluding large-scale bulk cleaning plants), photo-copying, and self-service laundries.

Retail Sales. The retail sale of merchandise not specifically listed under another use classification. This classification includes department stores, drug stores, clothing stores, furniture stores, pawn shops, pet shops, secondhand stores, and businesses retailing the following goods: toys, hobby materials, handcrafted items, jewelry, cameras, photographic supplies and services including portraiture and retail photo processing, medical supplies and equipment, electronic equipment, records, sporting goods, kitchen utensils, hardware, appliances, antiques, art supplies and services, paint and wallpaper, carpeting and floor covering, office supplies, bicycles, and new automotive parts and accessories (excluding service and installation).

Travel Services. Establishments providing travel information and reservations to individuals and businesses. This classification excludes car rental agencies.

Truck/Commercial Vehicle Service Stations. Establishments engaged in retail sale of gas, diesel fuel, lubricants, parts, and accessories for heavy trucks, buses, and similar commercial vehicles. This classification includes washing, waxing, or cleaning of trucks or similar vehicles, incidental maintenance and minor repair of vehicles, but excludes body and fender work or major repair of heavy trucks or other vehicles.

Vehicle and Equipment Sales, Service and Rental. Sales, servicing and rental of motor homes and recreational vehicles, vans, trailers, tractors, and other equipment used for agricultural or landscape gardening activities. Sales of new or used automobiles or trucks are excluded from this classification.

Vehicle Storage. Storage of operative or inoperative vehicles. This classification includes storage of parking tow-aways, impound yards, and storage lots for automobiles, trucks, buses and recreational vehicles, but does not include vehicle dismantling.

Industrial Use Classifications

Industry, Limited. Establishments engaged in any of the following types of activities taking place within enclosed buildings: manufacturing finished parts or products primarily from previously prepared materials; providing industrial services; or conducting industrial or scientific research, including product testing. This classification excludes basic industrial processing.

Wholesaling, Distribution and Storage. Storage and distribution facilities without sales to the public on-site or direct public access except for public storage in small individual space exclusively and directly accessible to a specific tenant. This classification includes mini-warehouses.

APPENDIX B

Air Quality Methodology and Assumptions

APPENDIX B
AIR QUALITY METHODOLOGY AND ASSUMPTIONS

The CALINE-4 model is a fourth-generation line source air quality model that is based on the Gaussian diffusion equation and employs a mixing zone concept to characterize pollutant dispersion over the roadway. Given source strength,meteorology, site geometry and site characteristics, the model predicts pollutant concentrations for receptors located within 150 meters of the roadway. The CALINE-4 model allows roadways to be broken into multiple links that can vary in traffic volume, emission rates, height, width, etc..

The intersection mode of the model was employed, which distributes emissions along each leg of the intersection for free-flow traffic, idling traffic and accelerating and decelerating traffic. The intersection model extended 500 meters in all directions. Receptors (locations where the model calculates concentrations) were located at distance of 20 feet from the roadway edge for all four corners of the intersection and at locations 50 feet in either direction, for a total of 12 receptors. Figure 1 is a schematic diagram showing the location of receptors.

The worst case mode of the CALINE-4 model was employed. In this mode the wind direction is varied to determine which wind direction results in the highest concentration for each receptor. Emission factors were derived from the California Air Resources Board EMFAC-7F computer model. Temperature was assumed to be 40 degrees F.

The computation of carbon monoxide levels assumed the following worst-case meteorological conditions:

Windspeed: 1.0 mps
Stability: G Category
Mixing Height: 1000 meters
Surface Roughness: 100 cm
Standard Deviation of Wind Direction: 10 degrees

The CALINE-4 model calculates the local contribution of nearby roads to the total concentration. The other contribution is the background level attributed to more distant traffic. Background levels were estimated as 5.0 PPM for the 1-hour averaging time and 3.5 PPM for the 8-hour averaging time.

The CALINE-4 model predicts 1-hour concentrations only. To estimate 8-hour concentrations a "persistence" factor of 0.7 was used.

AUTOMOBILE EMISSIONS CALCULATION

Estimates of regional emissions generated by project traffic were made using daily trip

generation data and trip length information for the project area. The daily trip generation by the project was multiplied by an average trip length of 7.0 miles to estimate daily Vehicle Miles Travelled as input to the emissions calculation procedure. This average trip length was calculated from BURDEN 7F output for Stanislaus County in the year 1994.[1]

Daily VMT and vehicle trips were processed using a spreadsheet program and EMFAC7F[2] emission factors to estimate emissions from the following sources:

Running exhaust emissions
Cold start emissions
Hot start emissions
Hot soak emissions
Diurnal emissions

The EMFAC7F emission rates were based on summertime conditions (temperature 75 degrees F) and an average vehicle speed of 25 MPH. The cold start percentage of 40.1% was taken from BURDEN 7F output for Stanislaus County in the year 1994.

The EMFAC7F program provides emission rates for Total Organic Gases (TOG). The TOG emission was multiplied by 0.91 to estimate Reactive Organic Gases (ROG).

AGRICULTURAL EMISSIONS

An average agricultural emission factor for Stanislaus County was calculated using county-wide inventories of emissions. The Ozone Attainment Demonstration Plan[3] for the region contains county-wide emissions of ROG and NOx for agricultural sources such as pesticide use, farm equipment and vehicles, and internal combustion irrigation engines. PM-10 emissions from agricultural operations in Stanislaus County were obtained from the PM-10 Nonattainment plan for the region.[4] Total county-wide emissions were divided by the number of acres of current agricultural land in Stanislaus County.

---

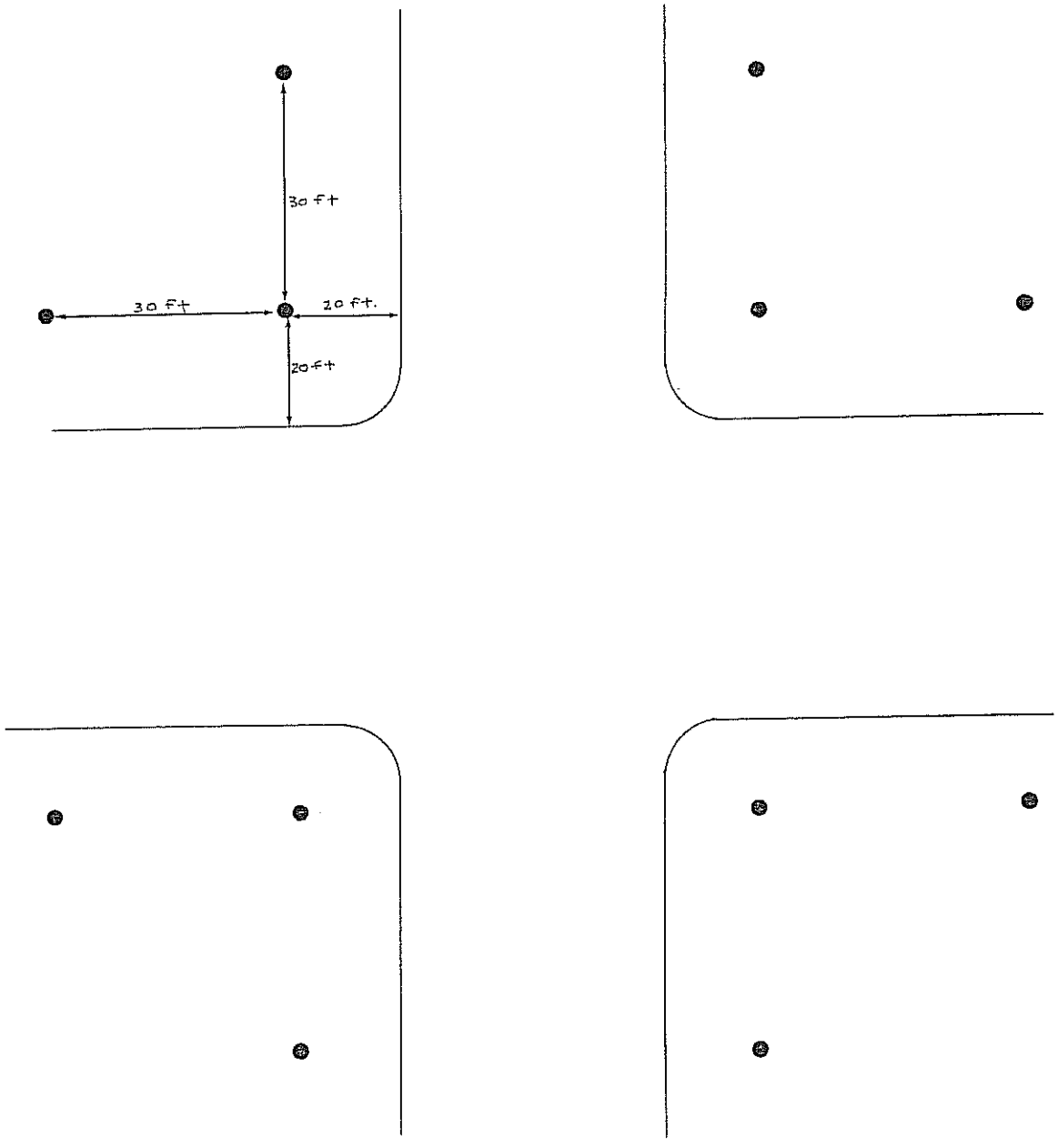
1 California Air Resources Board. *Methodology for Estimating Emissions From On-Road Motor Vehicles*. Volume III: BURDEN 7F. June 1993.

2 California Air Resources Board. *Methodology for Estimating Emissions From On-Road Vehicles Vol. I: EMFAC7F*. June 1993.

3 San Joaquin Valley Unified Air Pollution Control District, The Ozone Attainment Demonstration Plan, 1994.

4 San Joaquin Valley Unified Air Pollution Control District, San Joaquin Valley Unified Air Pollution Control District PM-10 Nonattainment Area Plan, September 1991.

Figure 1: Location of CALINE-4 Receptors



Bibliography for Air Quality Sections

References

Bay Area Air Quality Management District, 1985, Air Quality and Urban Development-Guidelines.

California Air Resources Board, 1974, Climate of the San Joaquin Valley Air Basin.

California Air Resources Board, 1992-1994, California Air Quality Data, Annual Summary, Vols. XXIII-XXV.

San Joaquin Valley Unified Air Pollution Control District, 1991: San Joaquin Valley Unified Air Pollution Control District PM-10 Nonattainment Area Plan.

San Joaquin Valley Unified Air Pollution Control District, 1992a: Federal 1992 Air Quality Attainment Plan for Carbon Monoxide.

San Joaquin Valley Unified Air Pollution Control District, 1992b: 1991 Air Quality Attainment Plan.

San Joaquin Valley Unified Air Pollution Control District, 1994: The Ozone Attainment Demonstration Plan.

South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.

a. Blayney, Dyett, Greenberg, Master Environmental Assessment and Draft Environmental Impact Report, September 1992

b. Transportation Research Board, Highway Capacity Manual, Special Report 209, 1985

c. Transportation Research Board, Interim Materials on Highway Capacity, Circular 212, 1981

d. Stanislaus Area Association of Governments, (SAAG), Miscellaneous Year 2005 and 2010

Traffic Volume and LOS forecasts, 1994

e. Stanislaus Area Association of Governments, (SAAG) 1992-1993 Congestion Management Program, 1993

f. CALTRANS, 1993 Traffic Volumes, 1994

APPENDIX C

Notice of Preparation and Initial Study

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE NORTHWEST TRIANGLE SPECIFIC PLAN

I. INTRODUCTION

The City of Turlock will be the Lead Agency in accordance with the California Environmental Quality Act (CEQA), and will prepare an Environmental Impact Report (EIR) for the proposed Northwest Triangle Specific Plan.

Public and agency comments are requested on the proposed project, which will provide for the orderly development of approximately 1080 acres of agricultural, vacant and existing urban commercial uses with a variety of commercial, residential and public uses. The study area is located in the northwest quadrant of the City of Turlock, along SR 99 between Fulkerth Road and Taylor Road, and contiguous to the City as shown of Map A.

This Notice of Preparation has been prepared in accordance with State CEQA Guidelines. The Project Description, location and probable environmental effects are discussed below and in the Initial Study prepared for this project.

In accordance with Section 15082(b) of the State of California Guidelines, response to this Notice of Preparation from Responsible Agencies shall identify, at a minimum, the following information:

1. The significant environmental issues and reasonable alternatives and mitigation measures which the Responsible Agency will need to have explored in the draft EIR; and

2. Whether the agency will be a Responsible or Trustee Agency for the project.

3. The name of a contact person in your agency.

II. PROJECT DESCRIPTION

A. Specific Plan

The project involves the preparation of a Specific Plan that will provide for the orderly development of approximately 1080 acres of agricultural, vacant and existing urban commercial land with a variety of commercial, residential and public uses. The Northwest Triangle Specific Plan will be consistent with the 1992 Turlock Area General Plan Land Use Designations. Approximately 236 acres are currently within the existing city limits, with prezoning and annexation required for approximately 844 acres. An Environmental Impact Report (EIR) will be required to identify, evaluate and address

potential [illegible] actual impacts associated with the development of the Specific Plan area.

B. Project Location

The project is generally located in an area bound by SR 99, Golden State Blvd. and Fulkerth Road in the northwest quadrant of the City of Turlock in Stanislaus County, refer to Map A.

C. Project Setting

The area to be prezoned and annexed (approximately 844 acres) is presently zoned Stanislaus County Urban Transition and A-2-10, Exclusive Agriculture (10 Acre minimum). Approximately 236 acres are currently within the City limits and include the Wal-Mart Power Center site, existing low density residential, existing high density apartments, existing industrial, and established commercial retail along N. Golden State Blvd. All Land Use Designations are consistent with the 1992 Turlock General Plan and the Master Environmental Assessment/Master Environmental Impact Report prepared for the General Plan.

D. Discretionary Actions Requested

1. Prezone and annexation of approximately 844 acres to the City of Turlock and to simultaneously detach said territory from the Keyes Rural Fire Protection District. Approximately 262 acres of the Specific Plan study area currently within the City limits.

The following specific discretionary applications have been submitted with the development of the Northwest Triangle Specific Plan.

2. Amendment to the City of Turlock Sphere of Influence from Secondary Area of Influence to Primary Area of Influence.

3. Prezoning of approximately 844 acres as follows: 301 acres to Community Commercial, 246 acres to Heavy Commercial, 124 acres to Low Density Residential, 23 acres to High Density Residential, 24 acres to Parks, 70 acres to Agriculture, and 56 acres to Detention Basin.

E. Environmental Impact Report (EIR) for a Specific Plan

The Northwest Triangle Specific Plan EIR will be structured to serve as environmental review for subsequent development projects within the specific plan area as permitted under Section 15182 of the CEQA Guidelines.Comments from agencies

and departm cs are encouraged to prc de guidance in the preparation of this environmental impact report.

III. PROBABLE ENVIRONMENTAL EFFECTS

The EIR to be prepared for the project will address the full range of potential environmental impacts that could result from the development of the Specific Plan area. A copy of the Initial Study is attached.

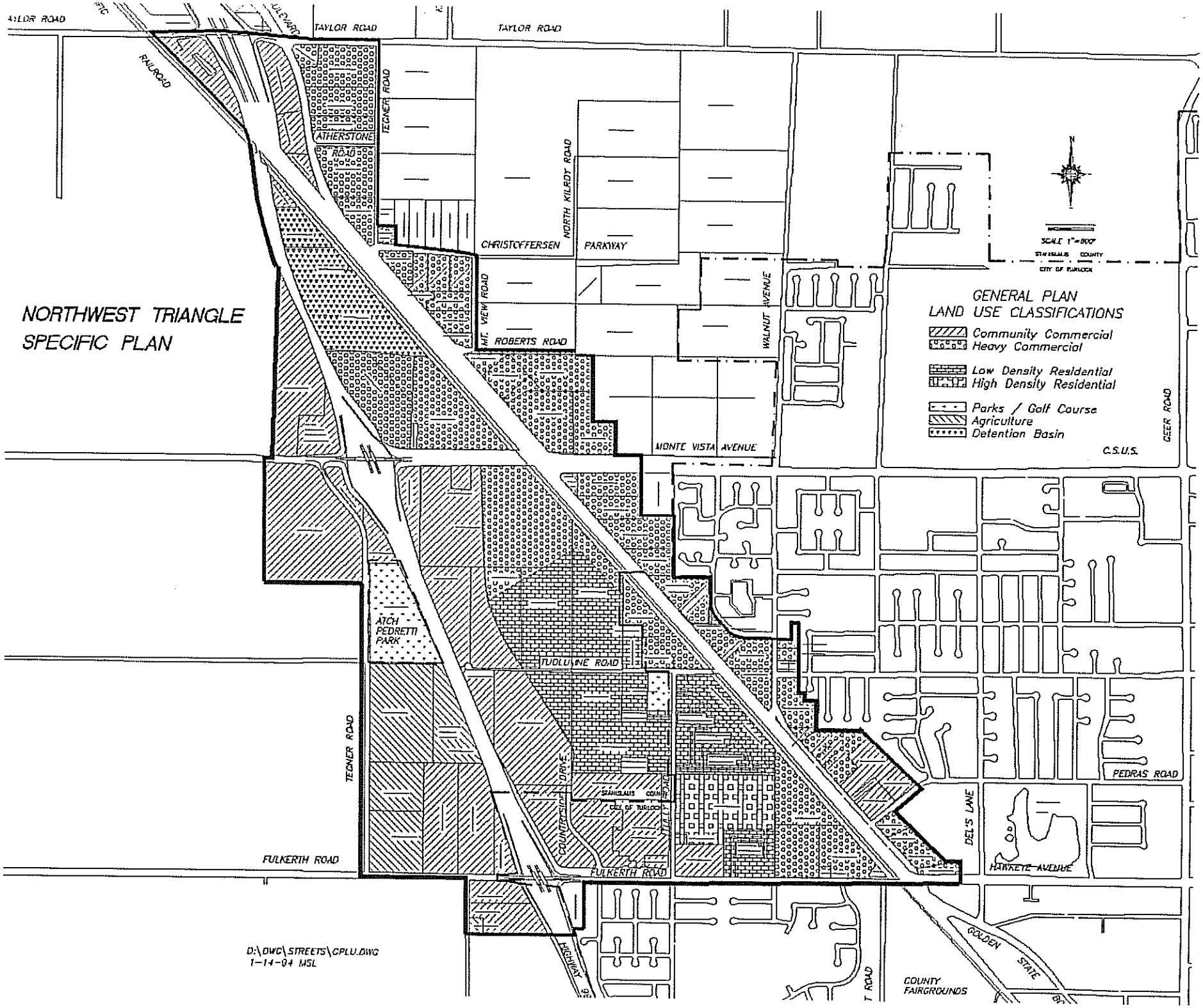
IV. RESPONSES

Please send your responses to Steven Hallam, AICP, Community Development Services Manager or James Hamilton, Senior Planner, at the address shown below.

March 8, 1994

Steve Hallam

Steven Hallam, Manager
Community Development Services
City of Turlock, P.O. Box 1526
Turlock, CA. 95381-1526
(209) 669-7311


NORTHWEST TRIANGLE
SPECIFIC PLAN
TAYLOR ROAD
TAYLOR ROAD
RAILROAD
TEGNER ROAD
ATHERSTONE ROAD
NORTH KILROY ROAD
CHRISTOFFERSEN PARKWAY
MT. VIEW ROAD
ROBERTS ROAD
WALNUT AVENUE
MONTE VISTA AVENUE
GEER ROAD
SCALE 1"=800'
STANISLAUS COUNTY
CITY OF TURLOCK
GENERAL PLAN
LAND USE CLASSIFICATIONS
Community Commercial
Heavy Commercial
Low Density Residential
High Density Residential
Parks / Golf Course
Agriculture
Detention Basin
C.S.U.S.
ATCH PEDRETTI PARK
TUOLUMNE ROAD
TEGNER ROAD
COUNTY CENTER DRIVE
STANISLAUS COUNTY
CITY OF TURLOCK
FULKERTH ROAD
FULKERTH ROAD
PEDRAS ROAD
DEL'S LANE
HAWKEYE AVENUE
GOLDEN STATE
HIGHWAY 99
COUNTY FAIRGROUNDS
D:\DWG\STREETS\GPLU.DWG
1-14-94 MSL

CITY OF TURLOCK

INITIAL ENVIRONMENTAL STUDY AND FINDINGS

I. BACKGROUND

1. Name of Proponent: **City of Turlock**

2. Address and Phone Number of Proponent:
900 N. Palm Ave.
Turlock, CA 95380
(209) 669-7311

3. Name and description of Proposal, if applicable: **Northwest Triangle Specific Plan**

The City of Turlock is preparing a Specific Plan for the orderly development of approximately 1080 acres. Land uses within the project area include commercial, residential and public uses. Approximately 236 acres are currently within the city limits and approximately 844 acres will be prezoned to the existing General Plan Land Use Designations preliminary to annexation into the City of Turlock.

The project area is generally located in the Northwest Quadrant of the City of Turlock, bound by Fulkerth Road on the south, SR 99 on the west, Golden State Blvd. on the east, and Taylor Road on the north (see map attached).

II. ENVIRONMENTAL IMPACTS

(Explanations of each answer are provided)

		Yes	Maybe	No
1.	**Earth.** Will the proposal result in:			
a.	Unstable earth conditions or changes in geologic substructures?			✓
b.	Disruptions, displacements, compaction or overcovering of soil?		✓	
c.	Change in topography or ground surface relief features?		✓	
d.	Destruction, covering or modification of any unique geologic or physical features?			✓
e.	Any increase in wind or water erosion of soils, either on or off the site?		✓	
f.	Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?			✓
g.	Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?			✓

Discussion

The potential urban development forecast under the General Plan would generate significant impacts for the project area. However, the magnitude of the impact would not be different from urban development anticipated under the General Plan. As identified in the General Plan Master Environmental Assessment/DEIR, urban development in the project area could cause disruption or compaction of soils, changes in geologic features or topography, or cause an increase in wind or water erosion.

Turlock is located in Seismic Zone 3 according to the State of California and the Alquist-Priolo Special Study Zones Act. All building permits will be reviewed to ensure compliance with the Uniform Building Code (UBC). In addition, the City enforces the provisions of the Alquist-Priolo Special Study Zones Act that limits development in areas identified as having special seismic hazards. Any new buildings that may be constructed in the City must comply with maximum lot coverage and setback design standards of the zoning ordinance and the grading standards of the Uniform Building Codes. The proposed specific plan includes prezoning of approximately 844 acres of the project area, preliminary to annexation to the City of Turlock. Specific mitigation measures related to physical development of the project area will be required as part of the subdivision/construction approval process.

Documentation

ICBO, Uniform Building Code, Chapter 70, 1992
City of Turlock, Standard Specifications, Grading Practices
City of Turlock, Municipal Code, Title 8, (Building Regulations)

Mitigation

Earth b, c - Mitigation of compaction and overcovering of the soil will be through maximum lot coverage and setback design constraints imposed through zoning development standards. Mitigation of potential changes in ground surface relief features will be through standard excavation and grading practices.
e - Mitigation of wind erosion of soils on site will be through standard excavation and grading practices. A grading plan shall be provided which will include details to ensure temporary erosion control measures shall be provided during all phases of construction. (See also Air - mitigations)

2. Air.	Will the proposal result in:	Yes	Maybe	No
a.	Substantial air emissions or deterioration of ambient air quality?	____	✓	____
b.	The creation of objectionable odors?	____	____	✓
c.	Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?	____	____	✓

Discussion

The potential urban development forecast under the General Plan would generate significant impacts for the project area. However, the magnitude of the impact would not be different from urban development anticipated under the General Plan. As identified in the General Plan Master Environmental Assessment/DEIR, urban development in the project area would result in substantial air emissions and cause a deterioration of air quality in the City. The traffic levels of service (LOS) for the project area are consistent with the land use designations identified in the 1992 Turlock General Plan Master Environmental Assessment/DEIR, and have been incorporated into the annual update of the Turlock Capital Improvement Program. Specific mitigation measures for potential impacts of this project are listed below and also include all mitigation measures developed for the Master Environmental Assessment/DEIR are herein incorporated by reference.

Documentation

Stanislaus Air Quality Maintenance Plan and Implementing Measures, 1991
Turlock General Plan - Environmental Impact Report, 1992
Turlock General Plan - Open Space & Conservation Element (Air Quality Section), 1992
Turlock General Plan - Transportation Element, 1992

Mitigation

Air a - Mitigation measures required to offset air quality impacts where feasible, have been developed in the air quality analysis sections of the Master Environmental Assessment/DEIR prepared for the 1992-2012 Turlock General Plan. Mitigation of air quality impacts will be through compliance with SJVUAPCD regulations for indirect Source Control Programs, Transportation Control and Mobile Source Emissions Control Measures. Impacts to air quality that may result from any development as a secondary effect of this prezone approval will be analyzed at the time of such proposed construction in accordance with the requirements of CEQA, the San Joaquin Valley Unified Air Pollution Control District, and the Stanislaus County Congestion Management Program, where applicable (also see Transportation):

Mitigation of potential deterioration of ambient air quality will be through the following mitigation measures:

1. Provide dedication of right-of-ways, and install improvements for Class II bicycle lanes consistent with the City's Bicycle Master Plan to serve this area.

2. Only low NOX burner-furnace units and water heaters, and HVAC equipment with a SEER of 12 or greater shall be installed in residential units.

3. Only low emitting, EPA certified fireplace inserts/woodstoves, pellet stoves or natural gas fireplaces shall be installed in residential units.

4. Residential housing units should be oriented to utilize passive solar cooling and heating to the fullest extent possible.

5. Natural gas lines and electrical outlets should be installed in backyards or patio areas to encourage the use of gas and/or electric barbecues.

6. Electrical outlets should be installed around the exterior of the home to encourage the use of electric lawn mowers, edgers, etc.

7. Appropriate easements should be reserved to provide future improvements such as bus turnouts, loading areas and shelters to accommodate transit service.

8. Pre-1974 vehicles may be retired to offset emmissions from project development.

9. Encourage the installation of solar-assisted water heating for all new commercial and residential developments.

10. Encourage the installation of energy efficient lighting beyond Title 24 requirements for all commercial and residential developments.

11. Encourage additional wall and attic insulation beyond existing building code (Title 24) requirements for all commercial and residential developments.

12. Encourage the planting of trees in a location to shade structures during the hot summer monthes (generally on the southern and western esposure). Deciduous trees shoud be used since they cool in the summer and allow for passive solar heating during winter months.

13. Encourage the establishment of an energy audit program in cooperation with the local utility companies to perform energy audits of residential/commercial/public buildings, five years or older.

14. Encourage employers to implement compressed work week schedules (e.g. 9/80, 4/40). Implementation of the 4/40 work schedule will meet the first year requirement (1.25 AVR) for employers under the SJVUAPCD Trip Reduction Ordinance (Rule 9001).

15. Encourage a Trip Reduction Ordinance complimentary to Rule 9001 for commercial development.

16. Encourage increased development densities. Higher density development allows for more and better transit services, less energy usage (gasoline) per acre of project, preservation of open space and prime agricultural land.

17. Encourage the installation of showers and lockers, bike parking, on-site cafeterias, and convenient transit waiting areas in/adjacent to office buildings.

18. Encourage opportunities to provide alternatives to conventional motor-vehicle fuel use. Among these opportunities are Compressed Natural Gas (CNG) fueling stations (quick-fill and slow-fill) and charging stations for electric vehicles.

19. Encourage conversion of public service vehicles from gasoline or diesel to compressed natural gas (CNG) or electric powered (e.g. city or county vehicles, U.S. Postal Service, school busses).

20. Encourage the reduction of parking space requirements via change in zoning requirements, easier zoning variance process. Reducing the requirement for parking spaces can provide other benefits besides clean air. For each space not built $1000 - $2000 can be saved.

21. Encourage building code changes to provide for the installation of fiber optic technology. This will enable enhanced opportunities for telecommuting.

<u>To Mitigate particulate emissions during construction, the following dust control measures will be implemented :</u>

1) Ensure prompt installation of site improvements to reduce the potential for dust emissions.

2) The areas disturbed by clearing, earth moving, or excavation activities should be minimized at all times. All inactive portions of the construction site should be seeded and watered until grass cover is grown.

3) All material excavated or graded should be sufficiently watered to prevent excessive amounts of dust. Watering should occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day. An effective watering program (at least twice daily with complete coverage) is estimated to reduce dust emissions by up to 50 percent. If water is in short supply, alternative dust control measures such as chemical stabilizers or wind barriers may be used. The SJVUACPD will be consulted prior to construction to aid in planning for dust control.

4) All materials transported off-site (trucks hauling earth, gravel or other materials to and from the project site) shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.

5) If fill dirt is brought into the construction site, then tarps or soil stabilizers shall be placed on the dirt piles to minimize dust problems.

6) When construction equipment leaves the construction site, all excessive dirt accumulations on the equipment should be washed off.

7) Streets adjacent to the project site should be swept pursuant to SJVUAPCD Rule 8020, section 5.4, to remove silt that may have accumulated from construction activities.

8) On-site vehicle speed should be limited to 15 miles per hour. Vehicle speed control can reduce fugitive dust emissions from unpaved roads and areas at construction sites up to 60 percent assuming compliance with the 15 mile per hour speed limit.

9) Limiting trips on the site to only those vehicles required to access for construction purposes (minimize vehicles on-site).

10) All clearing, grading, earth moving, or excavation activities shall cease during periods with winds greater than 20 miles per hour averaged over one hour.

11) Burning any vegetation cleared in preparation for development is prohibited.

To mitigate Ozone Precursors emissions the following measures will be implemented:

1) All internal combustion engine driven equipment should be properly maintained and tuned according to manufacturers specifications.

2) Idling of all internal combustion equipment shall be limited to ten minutes at any given time.

3) Encourage the use of building materials that do not require the use of paints/solvents.

3. Water.	Will the proposal result in:	Yes	Maybe	No
a.	Changes in currents, or the course of direction of water movements, in either marine or fresh water?			✓
b.	Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?		✓	
c.	Alterations to the course or flow of surface water in any water body?			✓
d.	Change in the amount of surface water in any water body?			✓
e.	Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?			✓
f.	Alteration of the direction or rate of flow of ground waters?			✓
g.	Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?			✓
h.	Substantial reduction in the amount of water otherwise available for public water supplies?			✓
i.	Exposure of people or property to water related hazards such as flooding or tidal waves?			✓

Discussion

The potential urban development forecast under the General Plan would generate significant impacts for the project area. However, the magnitude of the impact would not be different from urban development anticipated under the General Plan. As identified in the General Plan Master Environmental Assessment/DEIR, urban development in the project area may result in changes to absorption rates,

drainage pattern: d the rate and amount of surface runoff.
Development is not permitted within areas that are subject to inundation by 100-year flood events, and the City of Turlock is not located within the boundaries of identified flood hazard areas. In addition, the City has in place a Master Storm Drainage Plan that provides for positive storm drain systems city-wide for urban storm water runoff and reviews all proposals for potential impacts to this system as well as requiring on-site sand/oil separators as necessary. The City also has in place a water-conservation landscape ordinance for new landscaping areas of residential projects. All development approved by the city is required to connect to city services including sewer and water. A condition of each new development is payment of the applicable Capital Facilities Fee, a portion of which is used to fund infrastructure improvements required to serve new development.

Documentation

Federal Emergency Management Agency Floodplain regulations.
City of Turlock Storm Drain Master Plan, 1987
City of Turlock Waste Water Master Plan, 1991
City of Turlock Water Master Plan, 1991
City of Turlock, Municipal Code, Title 9, Chapter 2, Water Conservation Landscape Ordinance

Mitigation

Water b - Mitigation of potential changes in absorption rates, drainage patterns, and the rate and amount of surface water runoff will be through the payment of storm drainage impact fees which will provide for maintenance and improvements to storm drainage systems. Additional mitigation of potential flood hazard will be through the requirement that the project direct storm water runoff to the City storm drain system.

4. Plant Life. Will the proposal result in:	Yes	Maybe	No
a. Change in the diversity of species, of number of any species of plants, including trees, shrubs, grass, crops, and aquatic plants?	____	____	✓
b. Reduction of the numbers of any unique, rare or endangered species of plants?	____	____	✓
c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	____	____	✓
d. Reduction in acreage of any agricultural crop?	____	____	✓

Discussion

The proposed project would not have any direct effects on plant life by changing the species, reducing or impacting any rare or endangered species, introducing any new species or reducing agricultural land. The project site is entirely within the City of Turlock's urban boundary. Virtually all of the land within the urban boundaries of Turlock, as well as unincorporated land within the City's Sphere of Influence, has been modified from its native state, primarily converted into urban or agricultural production. As a result, there is no recorded evidence of the presence of rare or endangered plant species in the Turlock Planning Area. Many of these lands are also within Williamson Act contracts which limit their use for non-agricultural activities for ten years from date of their designation. Most of the lands within the Planning Area are prime agricultural soils or are considered "Important Farmlands" per the State of California.

Documentation

California Dept. of Fish & Game: Natural Diversity Data Base

California Native nt Protection Act
U.S. Department of Agriculture: Land Capability Classification Maps
California Dept. of Conservation: Important Farmlands Map and Monitoring Plan
Stanislaus County Williamson Act Contract Maps
Turlock General Plan, Open Space Conservation Element, 1992

Mitigation

No mitigation required at this time.

5. **Animal Life.** Will the proposal result in:	Yes	Maybe	No
a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish, and shellfish, benthic organisms or insects)?	___	✓	___
b. Reduction of the numbers of any unique, rare or endangered species of animals?	___	___	✓
c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	___	___	✓
d. Deterioration of existing fish or wildlife habitat?	___	___	✓

Discussion

The proposed project would not have any direct effects on animal life by changing the diversity of species, numbers of species, reduce any rare or endangered species, introduce new species, or deteriorate existing fish or wildlife habitat, but may have indirect impacts.

Virtually all of the land within the urban boundaries of Turlock, as well as unincorporated land within the City's Sphere of Influence, has been modified from its native state, primarily converted into urban or agricultural production. As a result, there is no recorded evidence of the presence of rare or endangered animal species in the Turlock Planning Area. The project area has been extensively modified by agricultural use and is no longer in its native state.

Documentation

California Dept. of Fish & Game, California Natural Diversity Data Base
Turlock General Plan - Open Space & Conservation Element, 1992

Mitigation

Animal Life a - Mitigation of potential impacts to fish and wildlife habitat will be through the applicant paying the appropriate fee to the Department of Fish and Game pursuant to Public Resources Code Section 21080 (C).

6. **Noise.** Will the proposal result in:	Yes	Maybe	No
a. Increases in existing noise levels?	___	✓	___
b. Exposure of people to severe noise levels?	___	___	✓

Discussion

The potential urban development forecast under the General Plan would generate significant impacts for the project area. However, the magnitude of the impact would not be different from urban development anticipated under the General Plan. As identified in the General Plan Master Environmental Assessment/DEIR, urban development in the project area could increase the existing noise levels by virtue of the potential development in the project area.

Documentation

Turlock General Plan - Noise Element, 1992
City of Turlock, Municipal Code, Title 9, Chapter 4, Noise Regulations.

Mitigation

Noise a - Mitigation of potential increases in existing noise levels will be through required compliance with noise limits as set forth in the Turlock Municipal Code (Chapter 4) and the Noise Element of the Turlock General Plan. Because impacts from the proposed project are anticipated to be of equal or lessor severity than those identified in the General Plan Master Environmental Assessment/DEIR, mitigation measures identified in the MEA/EIR are adequate to mitigate the impacts from the proposed project where feasible, and are hereby incorporated by reference. The need for site specific noise analysis, and development of mitigation measures, as required by the General Plan and CEQA will be determined at the time of submittal for subdivision/building approvals.

7. Light and Glare.	Yes	Maybe	No
a. Will the proposal produce new light or glare?	____	✓	____

Discussion

The potential urban development forecast under the General Plan would generate significant impacts for the project area. However, the magnitude of the impact would not be different from urban development anticipated under the General Plan. As identified in the General Plan Master Environmental Assessment/DEIR, urban development in the project area would produce increase light or glare from street lighting and security lighting for the project site.

Documentation

City of Turlock, Standard Specifications, Section 18

Mitigation

Light and Glare a - Mitigation of the potential for increased light and glare will be through required conformance with City of Turlock Standard Specifications for street lighting (Section 18) and with the Uniform Building and Electrical Codes at the time of subdivision/building approval, as applicable.

8. Land Use. Will the proposal result in:	Yes	Maybe	No
a. A substantial alteration of the present or planned use of an area?	____	✓	____

Discussion

The potential urban development forecast under the General Plan would generate significant impacts for the project area. However, the magnitude of the impact would not be different from urban development anticipated under the General Plan. As identified in the General Plan Master Environmental

Assessment/DEIR, an development in the project area would result in an alteration to the present land use on portions of the project site. The land use designations in proposed specific plan and prezoning are consistent with the planned use of the property as identified in the Land Use Element of the 1992-2012 Turlock General Plan.

Documentation

Turlock General Plan - Housing & Land Use Elements, 1992
City of Turlock Municipal Code, Title 9, Chapter 2, Article 22: Residential Growth Management

Mitigation

Land Use a - Because land use impacts from the proposed project are anticipated to be of an equal or lesser severity than those identified in the Master Environmental Assessment/DEIR for the Turlock General Plan, mitigation measures identified in the MEA/DEIR are adequate to mitigate the impacts from the proposed project where feasible, and are hereby incorporated by reference.

9. **Natural Resources.** Will the proposal result in:	Yes	Maybe	No
a. Increase in the rate of use of any natural resources?	____	____	✓
b. Substantial depletion of any nonrenewable natural resource?	____	____	✓

Discussion

Any development that may ultimately occur in the City does result in the utilization of natural resources (water, natural gas, construction materials, etc); however, these resources will not be depleted from this project. All new development is required to be consistent with the Turlock General Plan which includes analysis of natural resources that are consumed within the Planning Area. No development can be approved without adequate provisions for these resources. In addition, the City's Water Conservation Landscape Ordinance and metering requirements for new construction have been implemented to enhance the preservation and protection of these resources. Specific mitigation measures for public facilities (i.e. water) required for the development of the property will be addressed by an expanded public facilities analysis required for this prezone. Mitigation measures will be implemented at the time of subdivision/building approvals.

Documentation

Turlock General Plan - Open Space/Conservation & Public Facilities Elements, 1992

Mitigation

No specific mitigation is required at this time.

10. **Risk of Upset.** Will the proposal involve:	Yes	Maybe	No
a. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?	____	____	✓
b. Possible interference with an emergency response plan or an emergency evacuation plan?	____	____	✓

Discussion

This project does not increase any risk to the public or interfere with emergency response plan beyond those associated with normal development.

Documentation

City of Turlock, Emergency Response Plan, 1987
Turlock General Plan - Safety Element, 1992
City of Turlock, Municipal Code, Title 8, (Building Regulations)

Mitigation

No mitigation is required.

11. Population.

		Yes	Maybe	No
a.	Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?	____	____	✓

Discussion

The proposed specific plan and prezone will not alter the location, distribution, density and growth rate of the human population of the project site. The prezoning designation is consistent with that planned for in the Turlock General Plan and the Turlock Capital Facilities Program. Because impacts from the proposed project are anticipated to be of an equal or lesser severity than those identified in the Master Environmental Assessment/DEIR for the 1992-2012 Turlock General Plan, mitigation measures identified in the MEA/EIR are adequate and are hereby incorporated by reference.

Documentation

City of Turlock, Municipal Code, Title 9, Chapter 2, Residential Growth Management Program
Turlock General Plan - Land Use & Housing Elements, 1992

Mitigation

No mitigation required.

12. Housing.

		Yes	Maybe	No
a.	Will the proposal affect existing housing, or create a demand for additional housing?	____	____	✓

Discussion

No adverse effect on the existing housing supply is anticipated from the project, however anticipated demand for additional housing may be created by virtue of the creation of a substantial number of new jobs in the commercial component of the specific plan and prezone.

The City of Turlock has expanded the availability of affordable housing for low-income families by implementing a First Time Homebuyers Program (FTHB) with funds provided under the HOME Program. The HOME Program was created under Title II (the Home Investment Partnership Act) of the National Affordable Housing Act of 1990. By leveraging funds from Federal and State sources and working in partnership with local lenders, the FTHB Program is designed to seek new and creative ways to promote home ownership for low-income Turlock residents whose income does not exceed 80% of median area

income based on family size. In addition, low and moderate income funds from the Turlock Redevelopment Agency will be utilized to supplement existing programs as well as fund additional housing programs.

Documentation

State of California, C.G.C § 65302 & § 65580 - State Planning Law
City of Turlock, Housing Division, CHAS Report, 1992
Turlock General Plan - Land Use & Housing Elements, 1992
City of Turlock, Municipal Code, Title 9, Chapter 2, (Zoning Regulations)

Mitigation

No mitigation is required.

13. **Transportation/Circulation.** Will the proposal result in:	Yes	Maybe	No
a. Generation of substantial additional vehicular movement?		✓	
b. Effects on existing parking facilities, or demand for new parking?			✓
c. Substantial impact upon existing transportation systems?		✓	
d. Alterations to present patterns of circulation or movement of people and/or goods?		✓	
e. Alterations to waterborne, rail or air traffic?			✓
f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?		✓	

Discussion

The potential urban development forecast under the General Plan would generate significant impacts for the project area. However, the magnitude of the impact would not be different from urban development anticipated under the General Plan. As identified in the General Plan Master Environmental Assessment/DEIR, urban development could generate additional vehicular traffic movement, could alter present patterns of circulation or movement of people and/or goods, and could increase traffic hazards to motor vehicles, bicyclists and pedestrians due to the vehicle trips associated with the prezone. However, impacts on existing transportation systems, alteration to present patterns of circulation and movement of people and goods, and potential traffic hazards to vehicles, bicyclists and other pedestrians associated with potential development of the project area are anticipated to be of an equal or lesser severity than those identified in the Master Environmental Assessment/DEIR for the Turlock General Plan and have been incorporated into the City's capital facilities program.

Currently, area streets and intersections are operating acceptably. The threshold for satisfactory traffic operations within the City of Turlock is LOS "C". Any new construction or development that may result as a secondary impact from this project is subject to review by the City pursuant to CEQA which would examine these potential effects. Furthermore, the City has adopted a Capital Facility Program with traffic improvements planned for build-out of the General Plan. A condition of each new development is payment of a Capital Facility Fee, a portion of which is used to fund those circulation improvements required for impacts added by that development.

Documentation

City of Turlock, Capital Improvement Program (CIP) 92/93
Turlock General Plan - Transportation Element, 1992
City of Turlock, Airport Master Plan, 1991
Stanislaus Assn. of Governments, Regional Transportation Plan, 1992
Stanislaus Assn. of Governments, Regional Expressway Plan, 1991
Stanislaus Assn. of Governments, Congestion Management Plan, 1992
Turlock General Plan MEA/DEIR - Traffic & Circulation, September 1992

Mitigation

Transportation - a,c,d,f. Mitigation of potential impacts from substantial additional vehicular movement, impacts on existing transportation systems, alterations to present patterns of circulation and movement of people and goods, and potential traffic hazards to vehicles, bicyclists and other pedestrians will be through dedication and provision of full improvements for all roadways identified in the Circulation Element of the General Plan and any other roadways, as determined necessary by the Public Works Department. Additional mitigation will be through the payment of Capital Facilities Fees by the applicant (a portion of which is used for roadway improvements). Mitigation of potential increases in hazards to motor vehicles, pedestrians and bicyclists will be through conformance with building setback requirements and sidewalk and driveway standards. Additional mitigation measures will be identified in the Environmental Impact Report to be prepared for the project.

14. Public Services.

		Yes	Maybe	No
Will the proposal have an affect upon,or result in a need for new or altered governmental services in any of the following areas:				
a.	Fire Protection?	___	✓	___
b.	Police Protection?	___	✓	___
c.	Schools?	___	✓	___
d.	Parks or other Recreational Facilities?	___	✓	___
e.	Maintenance of public facilities, including roads?	___	✓	___
f.	Other Governmental Services?	___	✓	___

Discussion

The potential urban development forecast under the General Plan would generate significant impacts for the project area. However, the magnitude of the impact would not be different from urban development anticipated under the General Plan. As identified in the General Plan Master Environmental Assessment/DEIR, urban development would have an effect on fire, police, public facilities and government services. The City has prepared and adopted a Capital Facility Program which identifies the public service needs of roads, police, fire, and general government that will be required through build-out of the General Plan. This program includes the collection of Capital Facility Fees from all new development. Development fees are also collected from all new development for recreational lands and facilities. Conditions of approval for any development that may occur in the City will require payment of these fees and charges.

Documentation

Stanislaus County, Public Facilities Fee Program Report, 1989
City of Turlock, Capital Facility Report & Facilities Fees Ordinance, 1987
Turlock General Plan - Public Facilities & Services Element, 1992

Mitigation

Public Services - in addition to mitigation measures to be identified in the Environmental Impact Report to be prepared for the project, potential adverse impacts to public services will be through the following mitigation measures:

1) Roadways and fire hydrants will be installed and in service prior to the issuance of building permits.

2) The applicant will be required to pay, prior to the issuance of building permits, the newly adopted water and sewer connection fees reflecting the appropriate pro rata share of necessary improvements to the existing City water system for each new water user.

a,b,d,f - Mitigation of potential affects on fire, police, schools, parks, public facilities and other governmental services will be through the payment of capital facilities fees, fire hydrant fees, school facilities fees, park fees and other applicable fees collected by the Building Department for new development.

c. Mitigation of affects to school facilities will be through the requirement that applicant (or the successor in interest) enter into agreement with the Turlock School District to provide for full mitigation prior to the issuance of a building permit or recordation of a final subdivision map (as applicable) for any residential unit constructed in the City of Turlock.

e. Additional mitigation will be through the requirement that the property owner consent to the levy of an assessment to finance the operation and maintenance of landscaping, drainage, flood control, roadways and street lighting service which benefits the area to be developed.

15. Energy.	Will the proposal result in:	Yes	Maybe	No
a.	Use of substantial amounts of fuel or energy?	____	____	✓
b.	Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?	____	____	✓

Discussion

Urban development in the project area will not use substantial amounts of fuel or energy or increase the demand on existing energy sources beyond that planned for in the 1992-2012 Turlock General Plan.

Documentation

Turlock General Plan - Housing & Public Facilities Elements, 1992

Mitigation

No mitigation is required.

16. Utilities.

	Will the proposal result in a need for new systems, or substantial alterations to the following utilities:	es	Maybe	No
a.	Power or natural gas?	___	✓	___
b.	Communications systems?	___	✓	___
c.	Water?	___	✓	___
d.	Sewer or septic tanks?	___	✓	___
e.	Storm water drainage?	___	✓	___
f.	Solid waste & disposal?	___	___	✓

Discussion

The potential urban development forecast under the General Plan would generate significant impacts for the project area. However, the magnitude of the impact would not be different from urban development anticipated under the General Plan. Urban development in the project area will cause the normal extensions of water, sewer, storm water, and refuse facilities, along with electrical and communication utilities. Specific mitigation measures will be identified in the required infrastructure analysis for incorporation into the Mitigation Monitoring Program for this specific plan and prezone and for future subdivision approval.

Documentation

Turlock General Plan - Housing & Public Facilities Elements, 1992
City of Turlock, Water Master Plan, 1991
City of Turlock, Waste Water Master Plan, 1991
City of Turlock, Storm Drainage Master Plan, 1987

Mitigation

Utilities a,b,c - Mitigation of the need for alterations to utility systems will be through the requirement that the applicant, prior to the issuance of building permits, pay the newly adopted water connection fees reflecting the appropriate pro rata share of necessary improvements to the existing City water and Sewer system for each new water user; and meet the requirements of all other utility providers.

d - Mitigation of the need for alterations to sewer systems will through the requirement that the applicant, prior to the issuance of building permits, pay the newly adopted sewer connection fees, reflecting the appropriate pro rate share of necessary improvements to the existing City sewer system for each new sewer user.

e - Mitigation of the need for alterations to storm drain systems will be through mitigation measures identified in Water, section b.

17. Human Health.

	Will the proposal result in:	Yes	Maybe	No
a.	Creation of any health hazard or potential health hazard (excluding mental health)?	___	___	✓
b.	Exposure of people to potential health hazards?	___	___	✓

Discussion

The proposed specific plan and prezone will not create or expose people to potential health hazards. The City, in cooperation with Stanislaus County Environmental Health Department, provides planning efforts to locate and minimize the effects of hazardous materials. In addition, the City enforces the Uniform Housing Code which provides minimum standards for the health and safety of residential buildings.

Documentation

State of California, Dept. of Health, Hazardous Waste Inventory List, 1991
Stanislaus County, Solid Waste Management Plan, 1991
Turlock General Plan - Safety Element, 1992
International Code of Building Officials, Uniform Housing Code, 1992

Mitigation

No mitigation is required.

18. Aesthetics.

	Yes	Maybe	No
Will the proposal result in the obstruction of any scenic vista or view open the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?	____	____	✓

Discussion

The proposed specific plan and prezone would have no effects on aesthetics by obstructing any scenic views or create offensive public views.

Documentation

Turlock General Plan - City Design Element, 1992

Mitigation

No mitigation is required.

19. Recreation.

	Yes	Maybe	No
Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?	____	____	✓

Discussion

No known adverse impact on the quality or quantity of existing recreational opportunities, will result from the project.

Documentation

City of Turlock, General Plan, Open Space and Public Facilities Elements, 1992
City of Turlock, Municipal Code, Title 11, Subdivision & Recreation Impact Requirements

Mitigation

The project will be required to pay the applicable in-lieu fees or dedicate an equivalent amount of land, prior to issuance of building permits.

20. Cultural Resources.

		Yes	Maybe	No
a.	Will the proposal result in the alteration of, or the destruction of a prehistoric or historic archaeological site?	____	____	✓
b.	Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure or object?	____	____	✓
c.	Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?	____	____	✓
d.	Will the proposal restrict existing religious or sacred uses within the potential impact area?	____	____	✓

Discussion

The project would not alter or destroy any prehistoric or historic archaeological site, building, structure, or object, affect unique ethnic cultural values or restrict religious or sacred uses.

The City has conducted a Cultural Survey as part of the preparation of the update to the present Turlock General Plan. As a result of many years of extensive agricultural production virtually all of the land in the Plan area has been previously altered from its native or riparian state. There are no known sites of unique prehistoric or ethnic cultural value.

Documentation

Turlock General Plan, Land Use & City Design Element, 1992
Turlock General Plan Master Environmental Assessment/DEIR, September 1992

Mitigation

a. If archaeological resources or human remains are discovered during construction, work shall be halted within 50 meters (150 feet) of the find until it can be evaluated by a qualified archeologist. If the find is determined to be significant, appropriate mitigation measures shall be formulated and implemented.

21. Mandatory Findings of Significance.

		Yes	Maybe	No
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	____	____	✓

b.	Does the project h__ the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-tern impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future).	___	___	✓
c.	Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)	___	✓	___
d.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	___	___	✓

III. DISCUSSION OF ENVIRONMENTAL EVALUATION

(Narrative description of environmental impacts is included in text.)

IV. ENVIRONMENTAL DETERMINATION

(To be completed by the Lead Agency.)

On the basis of this initial evaluation:

I find that the proposed project could have a significant effect on the environment, therefore an "ENVIRONMENTAL IMPACT REPORT" will be prepared. ✓

Ernest Rubi, AICP
Senior Planner

Steve Hallam, AICP
Community Development Services Manager

APPENDIX D

Response to Notice of Preparation

STATE OF CALIFORNIA PETE WILSON, *Governor*

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO, CA 95814

DATE: March 15, 1994

TO: Reviewing Agencies

RE: NORTHWEST TRIANGLE SPECIFIC PLAN - TURLOCK
SCH# 94032049

Attached for your comment is the Notice of Preparation for Responsible agencies must transmit their concerns and comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of this notice. We encourage commenting agencies to respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

JIM HAMILTON
CITY OF TURLOCK
900 NORTH PALM
TURLOCK, CA 95380

with a copy to the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the review process, call Mari Lemos at (916) 445-0613.

Sincerely,

Michael Chiriatti, Jr.
Chief, State Clearinghouse

cc: Lead Agency

Notice of Completion *Supplementary Document M*

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 916/445-0613

See NOTE below
SCH # 94032049

Project Title: Northwest Triangle Specific Plan

Lead Agency: City of Turlock — Contact Person: Jim Hamilton
Street Address: 900 North Palm — Phone: 209/669-7311
City: Turlock CA — Zip: 95380 — County: Stanislaus

RECEIVED MAR 1 1994 STATE CLEARINGHOUSE

Project Location

County: Stanislaus — City/Nearest Community: Turlock
Cross Streets: S.R.99, Taylor Road & Golden State Blvd — Zip Code: 95380 — Total Acres: 1080
Assessor's Parcel No. various, see initial study — Section: — Twp. — Range: — Base:
Within 2 Miles: State Hwy #: 99 — Waterways:
Airports: — Railways: Southern Pacific, Union Pacific — Schools: Turlock - CSUS

Document Type

CEQA: ☐ NOP ☐ Supplement/Subsequent ☐ Early Cons ☐ EIR (Prior SCH No.) ☐ Neg Dec ☐ Other ☒ Draft EIR
NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI
Other: ☐ Joint Document ☐ Final Document ☐ Other

Local Action Type

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☒ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, Parcel Map, Tract Map, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other

Development Type

☒ Residential: *Units* *Acres*
☐ Office: *Sq.ft.* *Acres* *Employees*
☒ Commercial: *Sq.ft.* *Acres* *Employees*
☐ Industrial: *Sq.ft.* *Acres* *Employees*
☐ Educational
☒ Recreational

☐ Water Facilities: *Type* *MGD*
☐ Transportation: *Type*
☐ Mining: *Mineral*
☐ Power: *Type* *Watts*
☐ Waste Treatment: *Type*
☐ Hazardous Waste: *Type*
☐ Other:

Project Issues Discussed in Document

☐ Aesthetic/Visual
☐ Agricultural Land
☒ Air Quality
☐ Archeological/Historical
☐ Coastal Zone
☐ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☐ Flood Plain/Flooding
☐ Forest Land/Fire Hazard
☐ Geologic/Seismic
☐ Minerals
☒ Noise
☒ Population/Housing Balance
☒ Public Services/Facilities
☒ Recreation/Parks
☒ Schools/Universities
☐ Septic Systems
☒ Sewer Capacity
☐ Soil Erosion/Compaction/Grading
☐ Solid Waste
☐ Toxic/Hazardous
☒ Traffic/Circulation
☐ Vegetation
☒ Water Quality
☒ Water Supply/Groundwater
☐ Wetland/Riparian
☐ Wildlife
☐ Growth Inducing
☐ Landuse
☒ Cumulative Effects
☐ Other

Present Land Use/Zoning/General Plan Use Community Commercial, Heavy Commercial, Low Density Residential, Medium Density Residential, Parks, Agriculture

Project Description

Specific Plan for the orderly development of 1080 acres of agricultural, vacant and existing urban commercial uses with a variety of commercial, residential and public uses.

NOTE: Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. from a Notice of Preparation or previous draft document) please fill it in.

Revised October 1989

Reviewing Agencies Checklist

Supplementary Document N

KEY
S = Document sent by lead agency
X = Document sent by SCH
✓ = Suggested distribution

____Resources Agency
____Boating & Waterways
____Coastal Commission
____Coastal Conservancy
____Colorado River Board
__X__Conservation
__X__Fish & Game
____Forestry
____Office of Historic Preservation
____Parks & Recreation
____Reclamation
____S.F. Bay Conservation & Development Commission
__X__Water Resources (DWR)

Business, Transportation & Housing
____Aeronautics
__X__California Highway Patrol
__X__CALTRANS District #_____
____Department of Transportation Planning (headquarters)
__X__Housing & Community Development

____**Food & Agriculture**

Health & Welfare
____Health Services _____

State & Consumer Services
____General Services
____OLA (Schools)

Cal-EPA
__X__Air Resources Board
__X__APCD/AQMD (SJVUAPCD)
__X__California Waste Management Board
____SWRCB: Clean Water Grants
____SWRCB: Delta Unit
____SWRCB: Water Quality
____SWRCB: Water Rights
__X__Regional WQCB # 5 (Central Valley)

Youth & Adult Corrections
____Corrections

Independent Commissions & Offices
____Energy Commission
____Native American Heritage Commission
____Public Utilities Commission
____Santa Monica Mountains Conservancy
____State Lands Commission
____Tahoe Regional Planning Agency

__X__Other OPR

Public Review Period (to be filled in by lead agency)

Starting Date 3-10-94 Ending Date 4-25-94

Signature _____ Date 3/10/94

Lead Agency (Complete if applicable):
Consulting Firm: _____
Address: _____
City/State/Zip: _____
Contact: _____
Phone: (____) _____

Applicant: City of Turlock
Address: P O Box 1526
City/State/Zip: Turlock CA 95381-1526
Phone: (209) 669-7311 ext. 27

For SCH Use Only:
Date Received at SCH _____
Date Review Starts _____
Date to Agencies _____
Date to SCH _____
Clearance Date _____
Notes:

Revised October 1989

NOP Distribution List

S = sent by lead agency
X = sent by SCH

SCH# 94082049

Resources Agency

X Nadell Gayou
Resources Agency
1020 Ninth Street, Third Floor
Sacramento, CA 95814
916/653-6866

☐ Judy Carpenter
Dept. of Boating & Waterways
1629 S Street
Sacramento, CA 95814
916/445-6281

☐ Gary L. Holloway
California Coastal Commission
45 Fremont Street, Suite 1970
San Francisco, CA 94105-2219
415/904-5200

☐ Reed Holderman
State Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612
510/286-1015

X Deborah Herrmann
Dept. of Conservation
801 K Street, MS-24-02
Sacramento, CA 95814
916/445-8733

☐ Douglas Wickizer
Dept. of Forestry
1416 Ninth Street, Room 1516-2
Sacramento, CA 95814
916/653-9451

☐ Hans Kreutzberg
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001
916/653-9107

☐ Ken Pierce
Dept. of Parks and Recreation
P.O. Box 942896
Sacramento, CA 94296-0001
916/653-0538

☐ Wendy Halverson
Reclamation Board
1020 Ninth Street, Room 240
Sacramento, CA 95814
916/327-1531

☐ Steve McAdam
S.F. Bay Conservation & Dev't. Comm.
30 Van Ness Avenue, Room 2011
San Francisco, CA 94102
415/557-3686

X Nadell Gayou
Department of Water Resources
1020 Ninth Street, Third Floor
Sacramento, CA 95814
916/653-6866

Fish and Game - *Regional Offices*

☐ Richard L. Elliott, Regional Manager
Department of Fish and Game
601 Locust
Redding, CA 96001
916/225-2300 (8-442)

☐ Ryan Broddrick, Regional Manager
Department of Fish & Game
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670
916/355-0922 (8-438)

☐ B. Hunter, Regional Manager
Department of Fish and Game
P.O. Box 47
Yountville, CA 94599
707/944-5518

X G. Nokes, Regional Manager
Department of Fish and Game
1234 East Shaw Avenue
Fresno, CA 93710
209/222-3761 (8-421)

☐ Fred A. Worthley, Jr., Reg. Manager
Department of Fish and Game
330 Golden Shore, Suite 50
Long Beach, CA 90802
310/590-5132

Independent Commissions

☐ Lorri Gervais
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814
916/654-3944

☐ Native American Heritage Comm.
915 Capitol Mall, Room 364
Sacramento, CA 95814
916/653-4082

☐ Douglas Long
Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
415/703-2011

X Betty Eubanks
State Lands Commission
1807 - 13th Street
Sacramento, CA 95814
916/322-2795

☐ Gerald R. Zimmerman
Colorado River Board
770 Fairmont Avenue, Suite 100
Glendale, CA 91203-1035

☐ Rick Angelocci
Tahoe Regional Planning
P.O. Box 1038
Zephyr Cove, NV 89448
702/588-4547

Department of Transportation
District Contacts

☐ Dave Carstensen
Caltrans, District 1
1656 Union Street
Eureka, CA 95501
707/445-6407

☐ Michelle Gallagher
Caltrans, District 2
P.O. Box 494040
Redding, CA 96049-4040
916/225-3259 (8-442)

☐ Jody Lonergan
Caltrans, District 3
703 B Street
Marysville, CA 95901
916/741-4277 (8-457)

☐ Gary F. Adams
Caltrans, District 4
P.O. Box 23660
Oakland, CA 94623-0660
510/286-6174

☐ Lawrence Newland
Caltrans, District 5
P.O. Box 8114
San Luis Obispo, CA 93403-8114
805/549-3683 (8-629)

☐ Marc Birnbaum
Caltrans, District 6
P.O. Box 12616
Fresno, CA 93778-2616
209/448-4020

☐ Wilford Melton
Caltrans, District 7
120 South Spring Street
Los Angeles, CA 90012
213/897-1338 or 897-1344

☐ Harvey Sawyer
Caltrans, District 8
P.O. Box 231
San Bernardino, CA 92402
909/383-4808 (8-670)

☐ Lisa Flores
Caltrans, District 9
500 South Main Street
Bishop, CA 93514
619/872-5203

X Georgis Tindall
Caltrans, District 10
P.O. Box 2048
Stockton, CA 95201
209/948-3962

☐ Mike Owen
Caltrans, District 11
P.O. Box 85406
2829 Juan Street
San Diego, CA 92186-5406
619/688-6750 (8-631)

☐ Aileen Kennedy
Caltrans, District 12
2501 Pullman St.
Santa Ana, CA 92705
714/724-2239 (8-655)

Business, Transportation, & Housing

☐ Sandy Hesnard
Caltrans - Division of Aeronautics
P.O. Box 942874
Sacramento, CA 94274-0001
916/324-1833

☐ Tom Micone
California Highway Patrol
Office of Special Projects
Planning and Analysis Division
2555 First Avenue
Sacramento, CA 95818
916/657-7222

☐ Ron Helgeson
Caltrans - Planning
P.O. Box 942874
Sacramento, CA 94274-0001
916/445-5570

Health & Welfare

☐ Kim Dinh
Dept. of Health
601 N. 7th Street, PO Box 942732
Sacramento, CA 94234-7320
916/323-6111

State and Consumer Services

☐ Robert Sleppy
Dept. of General Services
400 R Street, Suite 5100
Sacramento, CA 95814
916/324-0214

☐ Office of Local Assistance
501 J Street, Suite 400
Sacramento, CA 95814
916/445-3160

California Environmental Protection Agency

X Barbara Fry
Air Resources Board
2020 L Street
Sacramento, CA 95815
916/322-8267

☐ Mark deBie
Calif. Waste Management Board
8800 Cal Center Drive
Sacramento, CA 95826
916/255-2367

☐ Wayne Hubbard
State Water Resources Control Board
Division of Clean Water Programs
P.O. Box 944212
Sacramento, CA 94244-2120
916/227-4308

☐ Phil Zentner
State Water Resources Control Board
Division of Water Quality
P.O. Box 944213
Sacramento, CA 94244-2130
916/657-0912

☐ Mike Falkenstein
State Water Resources Control Board
Division of Water Rights
901 P Street, 3rd Floor
Sacramento, CA 95814
916/657-1377 (8-437)

☐ Dept. of Toxic Substances Control
CEQA Tracking Center
400 P Street, Fourth Floor
P.O. Box 806
Sacramento, CA 95812-0806
916/324-3119

Regional Water Quality Control Board

☐ NORTH COAST REGION (1)
5550 Skyline Blvd., Suite A
Santa Rosa, CA 95403
707/576-2220 (8-590)

☐ SAN FRANCISCO BAY REGION (2)
2101 Webster, Suite 500
Oakland, CA 94612
510/286-1255

☐ CENTRAL COAST REGION (3)
81 Higuera Street, Suite 200
San Luis Obispo, CA 93401-5427
805/549-3147 (8-629)

☐ LOS ANGELES REGION (4)
101 Centre Plaza Drive
Monterey Park, CA 91754-2156
213/266-7556

X CENTRAL VALLEY REGION (5)
3443 Routier Road, Suite A
Sacramento, CA 95827-3098
916/255-3000

○ Fresno Branch Office
3614 East Ashlan Avenue
Fresno, CA 93726
209/445-5116 (8-421)

○ Redding Branch Office
415 Knollcrest Drive
Redding, CA 96002
916/224-4845 (ATS 441)

☐ LAHONTAN REGION (6)
2092 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150
916/542-5400

○ Victorville Branch Office
15428 Civic Drive, Suite 100
Victorville, CA 92392-2359
619/241-6583

☐ COLORADO RIVER BASIN REGION (7)
73720 Fred Waring Drive, #100
Palm Desert, CA 92260-2564
619/346-7491

☐ SANTA ANA REGION (8)
2010 Iowa Avenue, Suite 100
Riverside, CA 92507
714/782-4130 (8-632)

☐ SAN DIEGO REGION (9)
9771 Claremont Mesa Blvd., Suite B
San Diego, CA 92124-1331
619/265-5114 (8-636)

X OTHER HOUSING & DEVELOPMENT

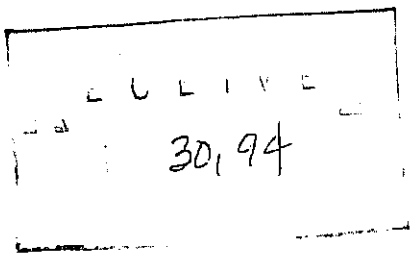
☐ OTHER _____

2/25/94

Pacific Gas and Electric Company
San Joaquin Valley Region

135 North Center Street
Turlock, CA 95380
209/634-5847

March 2, 1994



Mr. Steve Hallam
City Of Turlock
Post Office Box 1526
Turlock, CA 95381-1526

Re: Northwest Triangle Specific Plan

Dear Steve:

Per your request, I am providing you with the following information regarding the above referenced project:

1) PG&E has no suggested significant environmental issues to offer at this time.

2) PG&E will be a Responsible Agency for this project.

3) Please send all correspondence regarding this project to:

Wade W. Haley, Manager
Pacific Gas and Electric Company
135 N. Center Street
Turlock, CA 95380
209-634-5847

At this time, PG&E's only recommendation regarding this project is that all existing PG&E gas facilities remain covered by existing rights-of-way and franchise agreements.

If you have any questions, please call me.

Sincerely,

Wade W. Haley
Manager

Stanislaus County

Department of Public Works

1100 H STREET
MODESTO, CALIFORNIA 95354

- ADMINISTRATIVE DIVISION (209) 525-6550
- ENGINEERING DIVISION (209) 525-6552
BUILDING INSPECTION (209) 525-6557
TRANSIT OPERATION (209) 525-6552
ROAD DIVISION (209) 525-4130
SANITARY LANDFILL (209) 837-4800
EQUIPMENT DIVISION (209) 525-4145
BUILDING MAINTENANCE (209) 525-4108
- FAX (209) 525-6507

March 14, 1994

Jim Hamilton
City of Turlock
Community Development Department
P.O. Box 1526
Turlock, CA 95381

RECEIVED
MAR 16, '94

Dear Mr. Hamilton:

SUBJECT: Northwest Triangle Specific Plan - Notice of Preparation of an EIR

We request the EIR traffic study evaluate and list any mitigation required to maintain a LOS "C" for the following:

1. Taylor Road: Highway 99 to Geer Road.

2. Walnut Avenue: Taylor Road to City Limits. The bridge over the TID canal south of Taylor Road must be replaced if development will add any additional traffic to Walnut Avenue.

3. Dianne Drive: Tegner Road to West Main Street. This road has a minimal pavement width and paved shoulders will more than likely be required to facilitate any additional traffic generated by the project.

Please send me a copy of the draft EIR for our review and comment. Call me at 525-6552 if you have any questions.

Very truly yours,

H. R. CALLAHAN, Director

By Charles Barnes

Charles Barnes
Assistant Engineer

CB:
cc: Bob Kachel, Planning (ERC)
Monica Nino-Reid, CEO (ERC)

(turlock.cb)

PARKS DEPARTMENT

1716 MORGAN ROAD MODESTO, CALIFORNIA 95351 PHONE (209) 525-4107

March 21, 1994

TO: Steven Hallam, City of Turlock Community Development Services

FROM: Stephanie J. Larsen, Park Planner SMY

SUBJECT: ENVIRONMENTAL REFERRAL

I have reviewed the Notice of Preparation of an EIR for the Northwest Triangle Specific Plan. It is our determination that the project may have some impact on the Stanislaus County Parks & Recreation Department.

The factors which would affect the Parks and Recreation Department are population growth, growth in the housing stock, effects on parks or recreation facilities, impacts on historic or cultural resources, or impacts on fish and wildlife.

From the information provided, I was not able to determine how many new residential units would be created as the result of this project. However, we can expect increased usage at our regional parks whenever new residential housing is erected. An increased number of visitors results in additional human erosion of the land and waterways. There will be additional cost to our Department to clean up after the visitors and attempt to maintain the reservoirs' natural environment. We suggest imposing a mitigation fee equivalent to the Parks' portion of the County Public Facilities Fee: $85 per multi-family unit and $131 per single-family residence.

cc: Bob Kachel, Stanislaus County Planning Department

MAR 24, 94

San Joaquin Valley
Unified Air Pollution Control District

March 23, 1994

Steven Hallam
Community Development Services
City of Turlock
P.O. Box 1526
Turlock, CA 95381-1526

SUBJECT: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE NORTHWEST TRIANGLE SPECIFIC PLAN

The San Joaquin Valley Unified Air Pollution Control District has reviewed the above referenced NOP and offers the following comments:

The entire SJVAB is nonattainment for ozone and PM_{10}. The increases in emissions of reactive organic gases, oxides of nitrogen and PM_{10} from this and other developments will affect the attainment of air quality standards in the San Joaquin Valley Air Basin. Thus, the air quality section of the proposed DEIR should address the local and regional impacts of increased ozone and PM_{10} emissions. In addition, this project has the potential to create carbon monoxide "hot-spots" along roadways, at intersections and in parking areas. Thus, the potential impacts of carbon monoxide emissions must be evaluated in the DEIR.

The air quality analysis for this DEIR must identify and quantify the amount of emissions from traffic, on-site space and water heating, and any ancillary sources of emissions that a project of this composition and magnitude would produce.

The District recommends the use of URBEMIS 3 (AQAT 3) to calculate the pollutant emissions resulting from motor vehicle trips. Additionally, the CALINE 4 model should be used for intersections and any other sites where localized carbon monoxide concentrations are expected to occur. District staff should be consulted prior to preparation of the study to determine appropriate inputs to the computer models. Vehicle trip lengths for this project are especially critical to the outcome of the URBEMIS 3 calculations. Pollutants should be expressed in pounds per day.

David L. Crow
Executive Director/Air Pollution Control Officer

1999 Tuolumne Street, Suite 200 • Fresno, CA 93721 • (209) 497-1000 • FAX (209) 233-2057

Northern Region
4230 Kiernan Avenue, Suite 130 • Modesto, CA 95356
(209) 545-7000 • Fax (209) 545-8652

Central Region
1999 Tuolumne Street, Suite 200 • Fresno, CA 93721
(209) 497-1000 • Fax (209) 233-2057

Southern Region
2700 M Street, Suite 275 • Bakersfield, CA 93301
(805) 861-3682 • Fax (805) 861-2060

Mitigation measures must be included in the DEIR that reduce the emissions of reactive organic gases, nitrogen oxides, carbon monoxide and PM_{10}. Site design and building construction measures that would reduce air quality impacts should be included. In addition, Transportation Control Measures should be stressed to the maximum extent feasible. The DEIR should also take into consideration consistency with Congestion Management Plans.

The growth-inducing and cumulative impacts analyses should take into consideration the existing and planned future development both within the project area and in surrounding areas.

The DEIR consultant should be advised to use the 1991 San Joaquin Valley Air Basin Air Quality Attainment Plan (adopted January, 1992) in preparation of the air quality section of the DEIR.

Thank you for the opportunity to comment on this project. If you have any questions, please call me at 545-7000.

Sincerely,

David J. Stagnaro
Environmental Planner
Northern Region

APCD REF# N940113

LAFCO

S T A N I S L A U S
LOCAL AGENCY FORMATION COMMISSION
1100 H STREET MODESTO, CALIFORNIA 95354
(209) 525-7660 FAX: 525-5911

March 24, 1994

Steve Hallam, Manager
Community Development Services
City of Turlock
Post Office Box 1526
Turlock, CA 95381-1526

SUBJECT: NOTICE OF PREPARATION - NORTHWEST TRIANGLE SPECIFIC PLAN

Dear Mr. Hallam:

The LAFCO, as a Responsible Agency, will utilize the environmental documentation prepared by the City in their consideration of the proposed sphere of influence modification and annexation requests. Therefore, upon review of the Notice of Preparation for the above project, the following comments are offered for consideration in the EIR:

1. As noted in my October 12, 1993 reply to the Early Public Consultation, the area along Monte Vista Avenue, west of Highway 99, is not currently within Turlock's Sphere of Influence (see attached map). Before, territory can be annexed, it must first be in the sphere of influence (SOI) and second, have a "Primary Area" designation. Therefore, the project description and Draft EIR should clearly include and discuss the request to expand the SOI and designate territory within a "Primary Area" of Influence.

2. As this territory is annexed to the City, detachment from the Keyes Rural Fire District will also occur. The impacts to the Keyes Rural Fire Protection District should be addressed. Specifically, service impacts to the district as the result of lost tax revenue upon annexation.

3. The Specific Plan and EIR should address the impacts of the project on all service providers, including the City, County, special districts and schools.

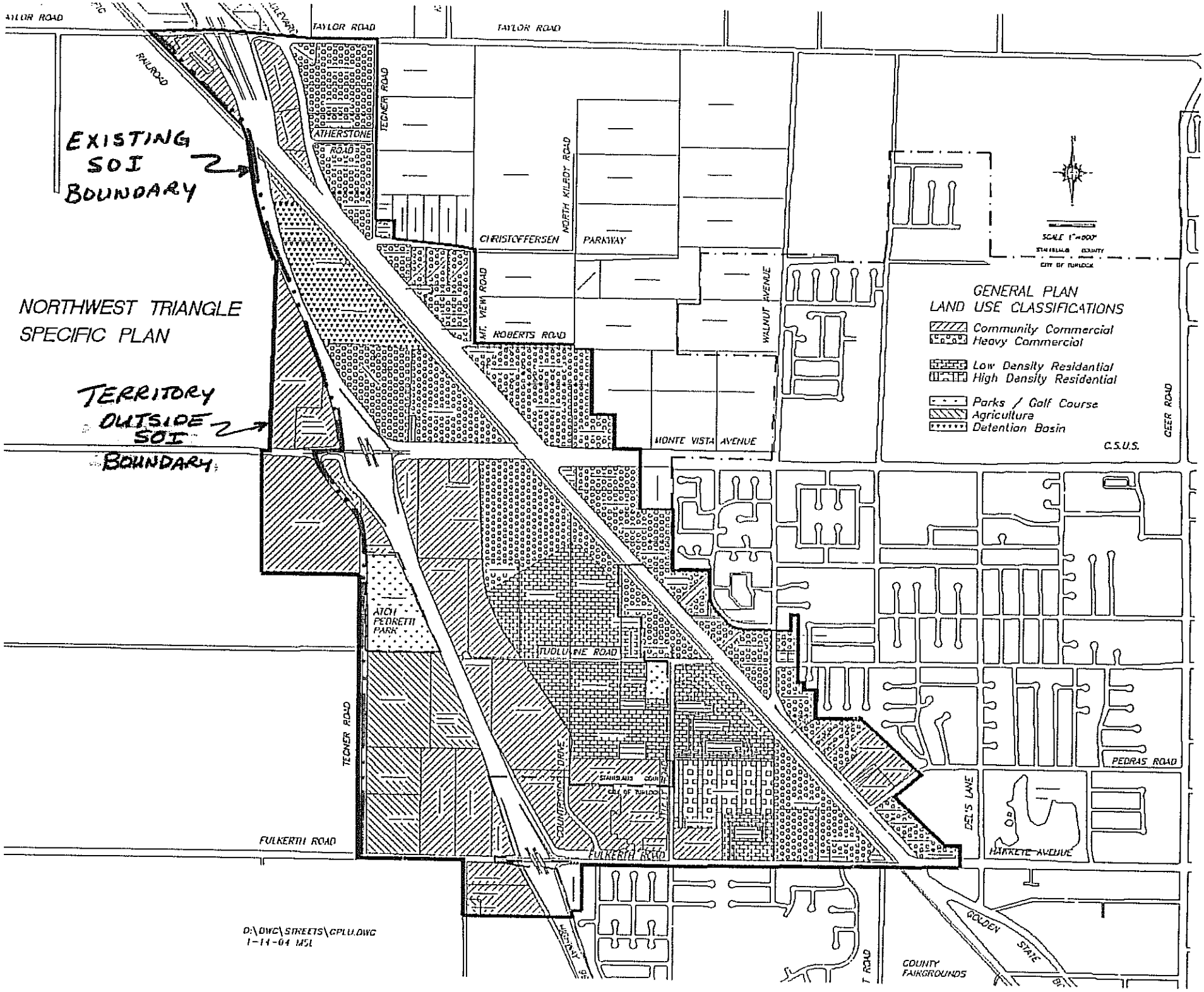
4. Government Code Section 56653 requires a plan for providing services be submitted with a resolution of application for a reorganization from a local agency. The information which is required in the plan is continued in the government code section. Since, the EIR will obviously discuss the various services issues, it would be logical to summarize this information into one section or appendix for easy retrieval for the reorganization proposal.

If you have any questions, please do not hesitate to call me.

Sincerely,

Fran Sutton-Berardi
Senior Planner

bm,L19
Attachment


EXISTING SOI BOUNDARY
NORTHWEST TRIANGLE SPECIFIC PLAN
TERRITORY OUTSIDE SOI BOUNDARY
TAYLOR ROAD
TAYLOR ROAD
RAILROAD
ATHERSTONE ROAD
TEGNER ROAD
CHRISTOFFERSEN PARKWAY
NORTH KILROY ROAD
MT. VIEW ROAD
ROBERTS ROAD
WALNUT AVENUE
MONTE VISTA AVENUE
GEER ROAD
SCALE 1"=800'
STANISLAUS COUNTY
CITY OF TURLOCK
GENERAL PLAN
LAND USE CLASSIFICATIONS
Community Commercial
Heavy Commercial
Low Density Residential
High Density Residential
Parks / Golf Course
Agriculture
Detention Basin
C.S.U.S.
ATCH PEDRETTI PARK
TUOLUMNE ROAD
TEGNER ROAD
COUNTRY CLUB DRIVE
STANISLAUS COUNTY
CITY OF TURLOCK
FULKERTH ROAD
FULKERTH ROAD
DELIS LANE
PEDRAS ROAD
HARRETT AVENUE
GOLDEN STATE
COUNTY FAIRGROUNDS
D:\DWG\STREETS\GPLU.DWG
1-11-04 MSL

DEPARTMENT OF FISH AND GAME

NOTICE OF CONCURRENCE:
DE MINIMIS FEE EXEMPTION

Project: STA.NORTHWEST TRIANGLE SPECIFIC PLAN ;

County of STANISLAUS, CITY OF TURLOCK

The Department of Fish and Game has evaluated the above project and determined that the project will not adversely affect resources under the Department's jurisdiction, either directly, indirectly or cumulatively. On that basis, we believe the project rebuts the "Presumption of Adverse Effect" as described in Title 14, California Code of Regulations, section 753.5.h.3. We will concur with issuance by the Lead Agency of a Certificate of De Minimis, declaring the project exempt from payment of Environmental Filing Fees, pursuant to State Fish and Game Code section 711.4.

We recommend a copy of this correspondence be included with the Lead Agency's Certificate of De Minimis, when forwarded with the project Notice of Determination.

Issued in Fresno, this 24th day of MARCH, 1994

DEPARTMENT OF FISH AND GAME:

Dale Mitchell
Environmental Specialist IV Supervisor

CHIEF EXECUTIVE OFFICER

1100 H Street, P.O. Box 3404, Modesto, California 95353

(209) 525-6333
FAX (209) 544-6226

REAGAN M. WILSON

April 4, 1994

Steven L. Hallam
Community Development Director
City of Turlock
P.O. Box 1526
Turlock, CA 95381

RE: NORTHWEST TRIANGLE SPECIFIC PLAN - NOTICE OF PREPARATION OF AN EIR

Dear Mr. Hallam:

The Stanislaus County Environmental Review Committee (ERC) has reviewed the subject project. The Committee concluded that the preparation of the Environmental Impact Report (EIR) must address the evaluation of any mitigation required to maintain a LOS "C" for Taylor Road, Walnut Avenue and Dianne Drive. In addition to the EIR a fiscal impact analysis should also be prepared.

The ERC recommends that levy and collection of all applicable Stanislaus County Public Facility Fees will serve as modification of the project that addresses the impacts on County Public Facilities; therefore, the Public Facility Fees must be included as a condition for approval on the Final Map.

The ERC appreciates the opportunity to comment on this project.

Sincerely,

Richard Jantz
Deputy Executive Officer
Environmental Review Committee

RJ:MH:plc
cc: ERC Members

DEPARTMENT OF SOCIAL SERVICES

P.O. Box 42, Modesto, CA 95353-0042
FAX (209) 525-6847

ACCREDITED
CHILD WELFARE SERVICES

RECEIVED
APR 1, 94

April 7, 1994

Steve Hallam, Director
Community Development
City of Turlock
PO Box 1526
Turlock, CA 95381-1526

Subject: Environmental Review Comments

Project Title: Notice of Preparation of an Environmental Impact Report for the Northwest Triangle Specific Plan

Based on this agency's particular fields of expertise, our position on the project described above is:

- may have significant impacts

Residential development would be expected to lead to certain cumulative and growth inducing impacts. Public services provided by the Stanislaus County Department of Social Services are impacted by changes in county population, housing and transportation/circulation.

POPULATION

County population growth is directly related to social services caseload growth. Services are currently being provided to more than 19 percent of county residents (approximately one in five). Due to continued expansion of programs, this ratio is expected to increase.

Any growth in population which may be expected to result from development within this project area would produce similar incremental increases in the need for social services. Costs related to this growth include staffing and overhead, as well as capital improvement costs to accommodate this expansion.

HOUSING

Department of Social Services clients may be members of any socioeconomic group, but a large number of those served are within the low income and transient populations. Public services provided include:

- emergency cash assistance to the homeless;
- ongoing grants to cover housing costs;
- job search, assessment and training;
- homemaker services to allow the aged and disabled to remain in their homes;
- protective services to children and dependent adults.

Each of these services may be impacted by the availability of very low, low and moderate income housing within the county. To the extent that the project under review either provides or fails to provide for an appropriate amount of very low, low and moderate income housing, the provision of public services may be positively or negatively impacted.

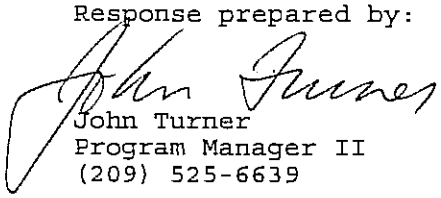
TRANSPORTATION/CIRCULATION

While some social services business is conducted through the mail or over the phone, travel between client homes and our offices is also necessary. Public assistance programs - cash, Food Stamps, Medi-Cal - require client travel to and from the Department of Social Services for the face-to-face interview which is part of the application process. Job search and training services require client travel to our offices and to training sites or prospective employers. Child and adult protective services more usually involve travel by social workers from our offices to the homes of clients.

Provision of services within the project area would be affected by changes in traffic and parking. Also significant would be impacts upon existing transportation systems and the availability of public transportation. Many individuals rely upon public transportation to access public services.

Impacts of development may be difficult to quantify, but growth management issues affect the provision of public social services. Please contact this office if further information is needed.

Response prepared by:



John Turner
Program Manager II
(209) 525-6639

JT/me

cc: Stanislaus County Planning and
and Community Development Department

Stanislaus County

Department of Environmental Resources

1716 Morgan Road
Modesto, California 95358-5894
FAX# (209) 525-4163
(209) 525-4154
DEH FAX 525-4198

TO: CITY OF TURLOCK COMMUNITY DEVELOPMENT DEPARTMENT

FROM: DEPARTMENT OF ENVIRONMENTAL RESOURCES

RE: ENVIRONMENTAL REVIEW COMMENTS

PROJECT TITLE: ENVIRONMENTAL REFERRALS-NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE NORTHWEST TRIANGLE SPECIFIC PLAN.

PROJECT DESCRIPTION: The preparation of a Specific Plan that will provide for the orderly development of approximately 1,080 acres of agricultural, vacant and existing urban commercial land with a variety of commercial, residential and public uses.

PROJECT LOCATION: The project is generally located in an area bound by SR 99, Golden State Blvd. and Fulkerth Road in the northwest quadrant of the City of Turlock in Stanislaus County, refer to Map A.

Based on this agency's particular field(s) of expertise, it is our position the project described above:

_X_ Will not have a significant effect on the environment.
____ May have a significant effect on the environment.
____ No comments.

Listed below are specific impacts which support our determination (e.g., traffic generation, carrying capacity, soil types, air quality, etc.). Attached are additional sheets if necessary.

1. N/A

In addition, our agency has the following comments:

1. The project's Negative Declaration or EIR should discuss impacts on the County's disposal facilities (the Fink Road landfill and the waste-to-energy plant). For example, solid waste generation analyses (estimates of the amounts of waste generated) should be carried out to provide estimates on how much of the project's waste will require disposal.

2. At the present time this department inspects and permits public water systems and aerobic septic systems (as per Measure X requirements) in the Project area. Should City water and/or sewer services become available, and connection be made, please notify the Department of Environmental Resources so that we may remove these systems from inspection.

Response prepared by:

Stephen D Clegg REG. ENV. HEALTH SPECIALIST April 6, 1994
STEPHEN CLEGG, R.E.H.S. (Title) (Date)

ck

DEPARTMENT OF CONSERVATION
DIVISION OF ADMINISTRATION
DIVISION OF MINES AND GEOLOGY
DIVISION OF OIL AND GAS
DIVISION OF RECYCLING

801 K Street
SACRAMENTO, CA 95814-3514

Telecommunications
Device for the Deaf
(916) 324-2555
Correspondent's Telephone
(916) 445-8733
Fax
(916) 324-0948

April 13, 1994

Mr. Jim Hamilton
City of Turlock
900 North Palm
Turlock, CA 95380

Dear Mr. Hamilton:

Subject: Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Northwest Triangle Specific Plan. **SCH# 94032049**

The Department of Conservation has reviewed the City of Turlock's NOP for the project referenced above. An area of 1080 acres of existing urban commercial uses, agricultural and vacant land will be developed with a variety of commercial, public and residential uses. Williamson Act contracts exist on most of the land. The Department, which is responsible for monitoring farmland conversion on a statewide basis and also administers the California Land Conservation (Williamson) Act, offers the following comments.

The loss of prime agricultural land should be identified and treated as a significant environmental impact. The California Code of Regulations (Section 15000 et seq., Appendix G (y)) states that a project will normally have a significant effect on the environment if it will convert prime agricultural land to non-agricultural use or impair the agricultural productivity of prime agricultural land. The DEIR should provide information on the number of acres of agricultural land to be developed, the potential agricultural value of the site, the impacts of farmland conversion, and possible mitigation actions. Specifically, we recommend that the DEIR contain the following information to ensure the adequate assessment of impacts in these areas.

o The agricultural character of the planning area, including:

- A map which identifies the location of agricultural preserves, the number of acres and type of land in each preserve (i.e., prime/non-prime).
- A map which identifies the location of Williamson Act contracts within the site and on surrounding lands.

- Types and relative yields of crops grown.
- Agricultural potential of the area's soils, as defined by the Department of Conservation's Important Farmland series map designations.

o The impacts on Williamson Act contracted land in, and adjacent to, the planning area should be assessed, including the following data:

- A discussion of the effects that termination of Williamson Act contracts would have on nearby properties also under contract. As a general rule, land can be withdrawn from Williamson Act contract only through the nine-year nonrenewal process. Cancellation is reserved for "extraordinary" situations (See Sierra Club v. City of Hayward (1981) 28 CA1.3d 840, 852-855). Cancellation must be based on specific findings that are supported by substantial evidence.
- If Williamson Act contract cancellation is proposed, include a discussion of the specific findings (Government Code Section 51282) that must be made by the Board of Supervisors in order for Williamson Act contracts to be canceled.

It should also be noted that Government Code Section 51284 states that no contract may be canceled until after the County has given notice of, and has held, a public hearing on the matter. Notice of the hearing, and a copy of the landowner's petition, shall be mailed to the Director of the Department of Conservation.

o Farmland Conversion Impacts.

- The type, amount and location of farmland conversion that would result from implementation of the specific plan.
- The impacts on current and future agricultural operations.
- The cumulative and growth-inducing impacts of the plan.
- The economic impacts of the farmland conversion. [In assessing these impacts, use should be made of economic multipliers, such as those used in the University of California Cooperative Extension's study, "Economic Impacts of Agricultural Production and Processing in Stanislaus County."]

o Mitigation measures and alternatives that would lessen farmland conversion impacts. A public agency shall adopt a reporting or monitoring program for adopted project changes which mitigate or avoid significant efforts on the environment (Chapter 1232, Statutes of 1988 (AB 3180)). Some of the possibilities are:

- Directing urban growth to lower quality soils in order to protect prime agricultural land.
- Increasing densities or clustering residential units to allow a greater portion of proposed development sites to remain in agricultural production.
- Protecting other, existing farmland of equivalent, or better, quality through planning policy that relies on an active and strategic use of the Williamson Act.
- Establishing buffers such as setbacks, berms, greenbelts and open space areas to separate farmland from urban uses. Many communities have considered 300 feet as a sufficient buffer for impacts such as pesticide spraying, noise and dust.
- Implementing right-to-farm ordinances to diminish nuisance impacts of urban uses on neighboring agricultural operations, and vice-versa.
- Implementing a farmland conversion fee to fund a farmland protection program that utilizes land use planning tools such as transfer of development rights, purchase of development rights or conservation easements, agricultural impact fees and farmland trusts.

The Department appreciates the opportunity to comment on the NOP. We hope that the farmland conversion impacts and the Williamson Act contract issues are given adequate consideration in the DEIR. If I can be of further assistance, please feel free to call me at (916) 445-8733.

Sincerely,

Deborah L. Herrmann

Deborah L. Herrmann
Environmental Program Coordinator

cc: Kenneth E. Trott
Office of Land Conservation
West Stanislaus Resource Conservation District

STATE OF CALIFORNIA -- BUSINESS, TRANSPORTATION AND HOUSING AGENCY PETE WILSON, *Governor*

DEPARTMENT OF TRANSPORTATION
P.O. BOX 2048 (1976 E. CHARTER WAY)
STOCKTON, CA 95201
TDD 209-948-7773

(209) 948-3803

May 17, 1994

10-Sta-99-4.69
City of Turlock
Northwest Triangle
Specific Plan
State Route 99 and Fulkerth Avenue
NOP/EIR

Mr. Steve Hallum
City of Turlock
Community Development Services
P.O. Box 1526
Turlock, CA 95381-1526

Dear Mr. Hallum:

We have reviewed the Northwest Triangle Specific Plan, a proposed project to provide for the orderly development of approximately 1,080-acre's of agricultural, vacant and existing urban commercial uses with a variety of commercial, residential and public uses. The study area is located in the northwest quadrant of the City of Turlock, along State Route 99 between Fulkerth Road and Taylor Road.

Transportation Planning has circulated this document through our interdepartmental review process. Mr. Paul Cavanaugh of our Traffic Department has the following comments:

In order to assess the impacts, a Traffic Analysis will need to be prepared. The analysis should include, but not be limited to, the following:

- An analysis of the project's total trip generation using recognized trip generation factors and the appropriate model;

- An analysis of existing traffic, the existing plus project related traffic and cumulative traffic, including all known proposals. These analyses should be expressed in terms of ADT and AM/PM peak hours, and include turning movements at all major intersections;

- An estimation of the directional distribution and networking of the project trips;

- An evaluation of the project's impact on the degradation of Level of Service (LOS), operational integrity and safety on all transportation facilities in the vicinity of the project. Caltrans is specifically interested in the impacts that will occur at:

  √ State Route 99 and Taylor Road;
  √ State Route 99 and W. Monte Vista Avenue; and
  √ State Route 99 and Fulkerth Road.

- A discussion which recommends and conceptualizes the roadway improvements necessary to mitigate the project's impacts. This discussion should include funding responsibilities and mechanisms for ensuring completion of necessary improvements. A phasing strategy is also necessary to ensure that roadway improvements are in place prior to degradation of LOS and safety to an unacceptable level.

Commute management proposals should be provided. It is likely that significant number of potential residents of this development will be commuting outside of the area to work.

If you have questions or wish to discuss this project further, please contact Georgia Tindall of my staff at (209) 948-3962.

Sincerely,

Mitchell W. Baker II

MITCHELL W. BAKER II
Chief, Transportation
Planning Branch B

cc: Greg Steel/SAAG

DATE: September 30, 1993

TO: Responsible and Trustee Agencies

FROM: Ernest A. Rubi, AICP, Senior Planner

SUBJECT: Early Public Consultation

RE: **NORTHWEST TRIANGLE SPECIFIC PLAN**

In accordance with Section 15083 of the California Environmental Quality Act (Early Public Consultation), the City of Turlock is requesting comments from responsible and trustee agencies who have resources affected by the proposed project as described below.

Project Name: Northwest Triangle Specific Plan

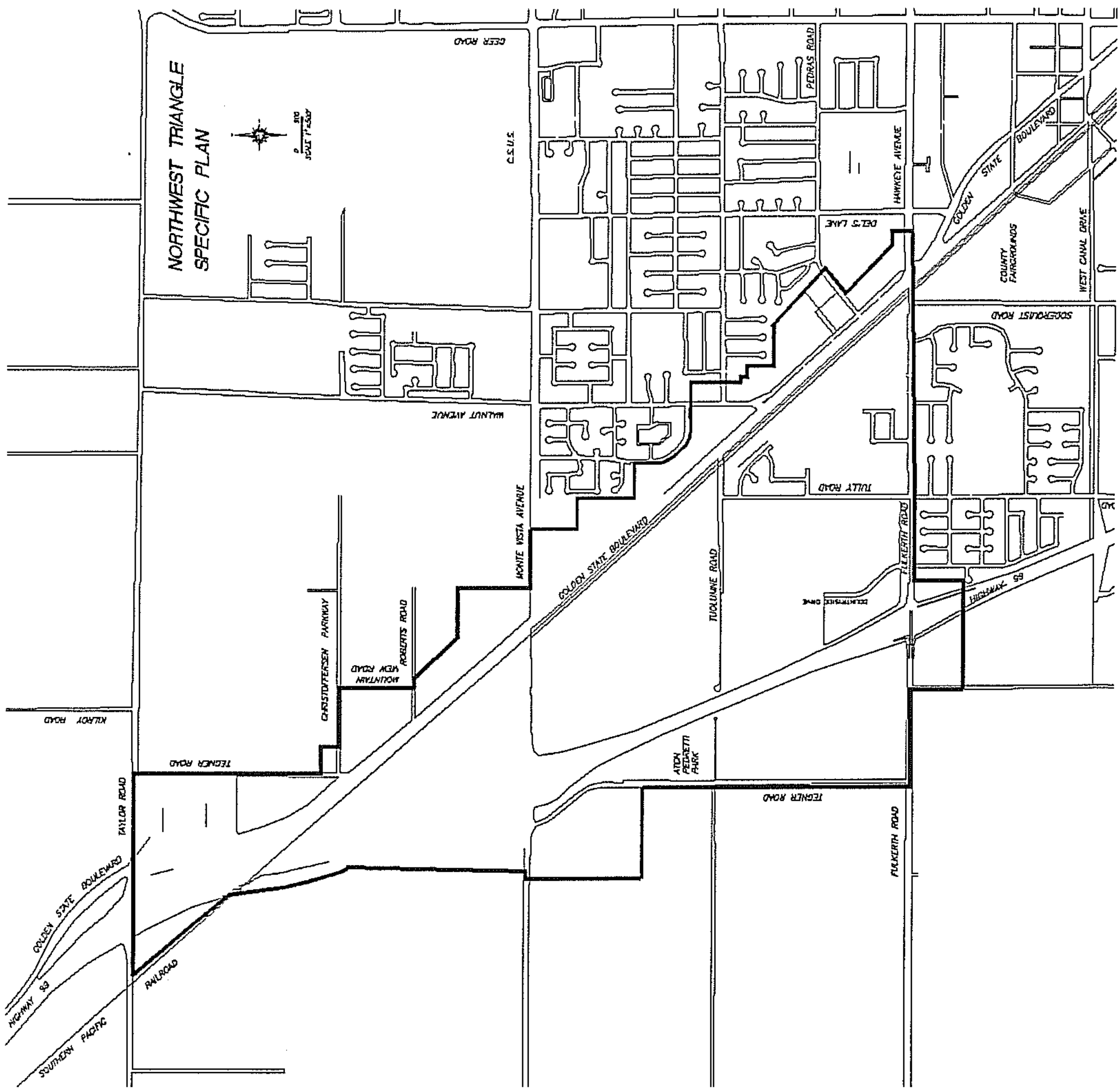
Project Location: An area generally bound by Highway 99, Fulkerth Road, and Golden State Blvd. (see map attached)

Project Description: The City of Turlock intends to prepare the Northwest Triangle Specific Plan as an implementing tool of the recently adopted Turlock General Plan (March 1993). The Specific Plan will provide a more detailed "specific" analysis of the plan area with a clearer identification of land use potential, circulation options, and infrastructure funding options. The project area comprises approximately 1080 acres or 1.69 square miles.

Please direct any comments on the proposed project to the Community Development Department, 900 N. Palm Street, Turlock, Ca. 95381, **no later than Friday, October 29, 1993**. If you have any questions or need any additional information, please feel free to call our office at 209/668-5565.

Ernest A. Rubi, AICP
Senior Planner

enc: map and/or plot plan


NORTHWEST TRIANGLE
SPECIFIC PLAN
C.S.U.S.
PEDRAS ROAD
HAWKEYE AVENUE
DEL'S LANE
GOLDEN STATE BOULEVARD
COUNTY FAIRGROUNDS
WEST CANAL DRIVE
SODERQUIST ROAD
WALNUT AVENUE
TULLY ROAD
MONTE VISTA AVENUE
GOLDEN STATE BOULEVARD
TUOLUMNE ROAD
FULKERTH ROAD
HIGHWAY 99
CHRISTOFFERSEN PARKWAY
MOUNTAIN VIEW ROAD
ROBERTS ROAD
KILROY ROAD
TEGNER ROAD
TAYLOR ROAD
ATON PEDRETTI PARK
TEGNER ROAD
FULKERTH ROAD
GOLDEN STATE BOULEVARD
HIGHWAY 99
SOUTHERN PACIFIC
RAILROAD

Pacific Gas and Electric Company

Modesto District
1524 North Carpenter Road
Modesto, CA 95351-1110
209/576-6633
Fax 209/576-6685

10-9-93

Ernest A. Rubi, AICP, Senior Planner
Community Development Department
City of Turlock
900 N. Palm Street
Turlock, Ca. 95381

Subject:
Early Public Consultation
Environmental Impact Report
Northwest Triangle Specific Plan/General Plan
City of Turlock

Dear Mr. Rubi:

Thank you for the opportunity to review the above project. Our review of this project indicates potential impact to this companies gas system. These impacts are discussed below and should be addressed in the EIR.

This proposed development of 1080 acres could potentially have cumulative impacts on our gas system and may require the expansion of PG&E facilities within and outside the proposed development boundaries. These facilities should be identified with studies initiated and funded by the developer in the development planning stages.

Any environmental reviews required for the installation of PG&E facilities should be conducted as part of the EIR process. Responsibility for the studies belong to the developer due to the fact that new impacts created by the construction of utility facilities would be caused solely and by virtue of the proposed development, therefore, should be considered a part of the overall project. PG&E required on-site utility easements necessary to serve proposed projects should be required as a condition of approval. Care should be taken to ensure that zoning ordinances or deed restrictions do not exclude underground utility facilities from any areas.

PG&E owns and operates several gas distribution lines and a transmission pressure gas line which lie within the proposed project area. General Order 112D of the California Public Utilities Commission (CPUC) code requires the maintenance of specific clearances around gas facilities. For this reason, PG&E and the local agencies must enforce restrictions upon development activities and improvements such as grading, holding ponds, roads and structures near PG&E facilities and within their associated rights-of-way and easements. To ensure that site development in the vicinity of PG&E operations is not in conflict with existing facilities, the Developer should be required to submit all plans for review as follows:

Pacific Gas & Electric Company
Jose Tello, District Manager
Attention: Dave Newkirk
1524 N. Carpenter Rd.
Modesto, Ca. 95351

If the proposed project meets PG&E's standards to protect our facilities, PG&E will grant the Developer a written consent outlining specific uses and development requirements. The following is potential wording to be included in the Environmental Impact Report Mitigation Requirements:

> "Provide a consent agreement from Pacific Gas and Electric Company prior to issuance of any permits for development within any PG&E right-of-ways or easements"

Thank you again for the opportunity to review this very important matter and if you have any questions, please call me at (209)576-6638.

Respectfully,

Dave Newkirk

Dave Newkirk
Gas & Electric Operations

cc: Jose Tello
Wade Haley
Joe Iencerelli
Eric Kirkpatrick
Jan Porter

file: c:\data\winword\govt\turlock\general\1.doc

LAFCO

STANISLAUS
LOCAL AGENCY FORMATION COMMISSION
1100 H STREET MODESTO, CALIFORNIA 95354
(209) 525-7660 FAX: 525-5911

October 12, 1993

Ernest Rubi, Senior Planner
Community Development Department
900 N. Palm Street
Turlock, CA 95381

SUBJECT: NORTHWEST TRIANGLE SPECIFIC PLAN

Dear Mr. Rubi:

The following comments are offered for your consideration in the preparation of the above specific plan and environmental documents:

1. The area along Monte Vista Avenue, west of Highway 99 (See attached map) is located outside Turlock's Sphere of Influence. If the City intends to annex this territory or any of the area included within the specific plan boundary, the project description and environmental documentation should include discussion of the sphere of influence modification and annexation.

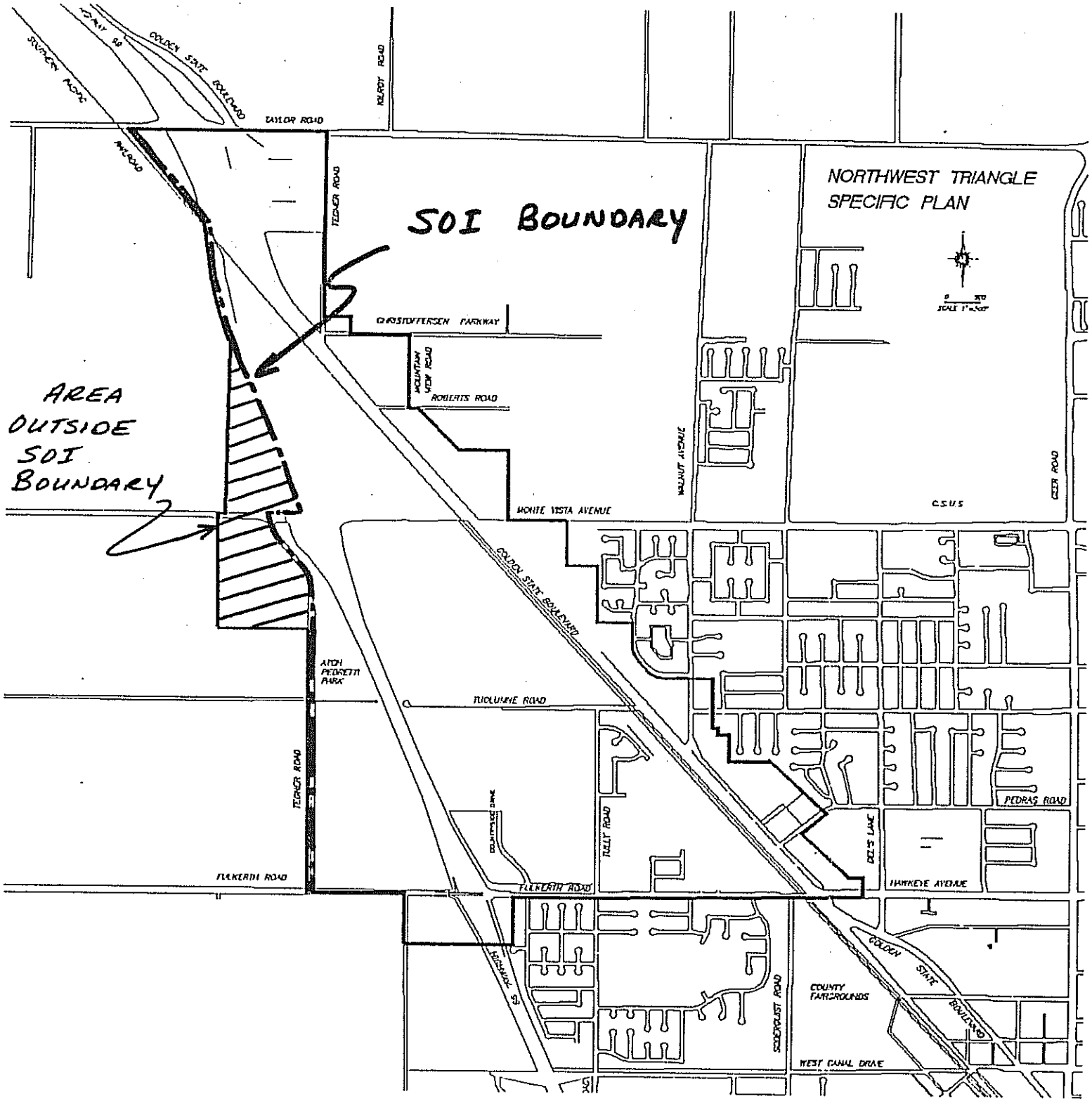
2. The specific plan documents should discuss the impacts of the project on all service providers, including the City, County, special districts and schools.

Thank you for the opportunity to review the above project. If you have any questions regarding these comments, please do not hesitate to call me.

Sincerely,

Fran Sutton-Berardi
Senior Planner

FSB/bm,L18
Attachment


SOI BOUNDARY
AREA OUTSIDE SOI BOUNDARY
NORTHWEST TRIANGLE SPECIFIC PLAN
TAYLOR ROAD
GOLDEN STATE BOULEVARD
SANTA FE RAILROAD
TEGNER ROAD
CHRISTOFFERSEN PARKWAY
MOUNTAIN VIEW ROAD
ROBERTS ROAD
WHITE VISTA AVENUE
WALNUT AVENUE
ELM ROAD
C.S.U.S
ATOH PEDRETTI PARK
TUOLUMNE ROAD
FULKERTH ROAD
COUNTRYSIDE DRIVE
TULLY ROAD
DEL'S LANE
PEDRAS ROAD
HAWKEYE AVENUE
HIGHWAY 99
SOUTHBOUND
COUNTY FAIRGROUNDS
WEST CANAL DRIVE

Stanislaus County

Department of Public Works

1100 H STREET
MODESTO, CALIFORNIA 95354

* ADMINISTRATIVE DIVISION (209) 525-6550
* ENGINEERING DIVISION (209) 525-6552
BUILDING INSPECTION (209) 525-6557
TRANSIT OPERATION (209) 525-6552
ROAD DIVISION (209) 525-4130
SANITARY LANDFILL (209) 837-4800
EQUIPMENT DIVISION (209) 525-4145
BUILDING MAINTENANCE (209) 525-4108
* FAX (209) 525-6507

October 20, 1993

Mr. Ernest A. Rubi
Planning Department
City of Turlock
P.O. Box 1526
Turlock, CA 95381-1526

Dear Mr. Rubi:

SUBJECT: Northwest Triangle Specific Plan

To eliminate significant traffic impacts to Stanislaus County, the specific plan boundaries need to be the west line of Diane Drive, the south line of Fulkerth Road, the west line of Tegner Road, the north line of Taylor Road and the east line of Tegner Road. In addition, Diane Drive south of Fulkerth Road does not have an adequate structural section to handle additional traffic that will be generated within the specific plan area. The specific plan must mitigate the traffic impacts to Diane Drive.

Please call me at 525-6552 if you have any questions.

Very truly yours,

H. R. CALLAHAN, Director

By Charles Barnes

Charles Barnes
Assistant Engineer

CB:
cc: Mary Hemminger, (ERC)
Bob Kachel, Planning
LAFCO

Stanislaus County

Department of Environmental Resources

1716 Morgan Road
Modesto, California 95358-5894
FAX# (209) 525-4163
(209)
525-4154

TO: CITY OF TURLOCK COMMUNITY DEVELOPMENT DEPARTMENT

FROM: DEPARTMENT OF ENVIRONMENTAL RESOURCES

RE: ENVIRONMENTAL REVIEW COMMENTS

PROJECT TITLE: NORTHWEST TRIANGLE SPECIFIC PLAN

PROJECT DESCRIPTION: Comprises approximately 1080 acres. The Specific Plan will provide a more detailed "specific" analysis of the plan area with a clearer identification of land use potential, circulation options, and infrastructure funding options.

Based on this agency's particular field(s) of expertise, it is our position the project described above:

__X__ Will not have a significant effect on the environment.
_____ May have a significant effect on the environment.
_____ No comments.

Listed below are specific impacts which support our determination (e.g., traffic generation, carrying capacity, soil types, air quality, etc.). Attached are additional sheets if necessary.

1. N/A

Listed below are possible mitigation measures for the above listed impacts:

1. N/A

In addition, our agency has the following comments: (Attach additional sheets if necessary).

1. The project's Negative Declaration or EIR should discuss impacts on the County's disposal facilities (the Fink Road landfill and the waste-to-energy plant). For example, solid waste generation analyses (estimates of the amounts of waste generated) should be carried out to provide estimates on how much of the project's waste will require disposal.

Response prepared by:

Stephen Clegg REG. ENV. HEALTH SPECIALIST 10-26-93
STEPHEN CLEGG, R.E.H.S. (Title) (Date)

ck

San Joaquin Valley
Unified Air Pollution Control District

October 29, 1993

Ernest A. Rubi
City of Turlock
Community Development
P.O. Box 1526
Turlock, CA 95381-1526

SUBJECT: NORTHWEST TRIANGLE SPECIFIC PLAN

The San Joaquin Valley Unified Air Pollution Control District has reviewed the above mentioned project and offers the following comments:

The District acknowledges Prezone No.93-05 and Sphere of Influence Modification and offers no specific comments at this time. However, the District reserves the right to comment on specific proposals within the project area once they are made.

The applicant should be aware of the SJVUAPCD's Regulation VIII, which will become effective December 10, 1993. The intent of Regulation VIII is to reduce the amount of PM_{10} entrained into the ambient air as a result of emissions generated from anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate PM_{10} emissions. This project will be subject to the rules included in Regulation VIII if construction occurs on or after the effective date. A copy of Regulation VIII is available from any of the region offices listed below.

Sincerely,

David J. Stagnaro
Environmental Planner
Northern Region

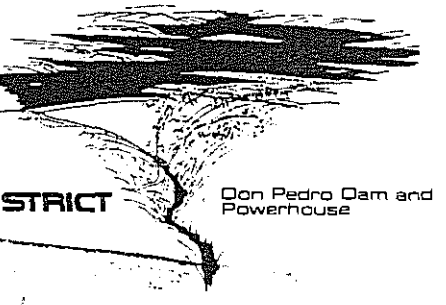
David L. Crow
Executive Director/Air Pollution Control Officer
1999 Tuolumne Street, Suite 200 • Fresno, CA 93721 • (209) 497-1000 • FAX (209) 233-2057

Northern Region
4230 Kiernan Avenue, Suite 130 • Modesto, CA 95356
(209) 545-7000 • Fax (209) 545-8652

Central Region
1999 Tuolumne Street, Suite 200 • Fresno, CA 93721
(209) 497-1000 • Fax (209) 233-2057

Southern Region
2700 M Street, Suite 275 • Bakersfield, CA 93301
(805) 861-3682 • Fax (805) 861-2060

TURLOCK IRRIGATION DISTRICT
333 EAST CANAL DRIVE
POST OFFICE BOX 949
TURLOCK, CALIFORNIA 95381
(209) 883-8300



October 29, 1993

Ernest A. Rubi
City of Turlock Planning Dept.
P.O. Box 1526
Turlock, CA 95381

Reference: Northwest Triangle Specific Plan
TID Application No. M93-137

Dear Ernie:

The Turlock Irrigation District appreciates the opportunity to comment on the Northwest Triangle Specific Plan.

Irrigation System Comments

Any property that develops within the Turlock Irrigation District must meet Development standards as specified in Board Resolution No. 89-49. A copy of that document and the current Irrigation Development standards have been previously sent to the City.

Some of the typical conditions placed upon developing properties include:

1. Irrigation facilities within developments must be removed, replaced and relocated to TID Development Standards. Appropriate easements shall be dedicated as necessary.

2. For developments adjoining canal rights-of-way, a six foot high masonry block wall must be constructed along the right-of-way line. Cross sections showing finish grade of both sides of the masonry wall must be provided.

3. Lots adjoining irrigated ground must be graded so that the back of lot and house pad elevations are at least six inches higher than the adjoining irrigated ground.

4. Control structures along irrigation facilities must have street access.

Annexation of agricultural property has caused operational and maintenance problems in serving irrigation water within urban areas. Alternative methods of serving these customers with irrigation water should be explored.

Partial annexation and development of property located within irrigation improvement districts has the effect of reducing the revenue base of the improvement district and possibly increasing the maintenance cost to the remaining landowners. The District recommends that where possible entire improvement district be considered for annexation or development at one time.

The T.I.D. must review and approve all maps and plans of projects within this area. Any improvements to the property must be subject to T.I.D. approval and meet all T.I.D. standards and specifications.

Storm Drainage

The development of this area will significantly increase storm water runoff. Presently, the City utilizes the District's canals for disposal of the storm drainage water. The District's canal and drainage system has a limited capacity which may increase the necessity for longer retention periods of the drainage. As an alternative, the City may want to participate in increasing the discharge capacity of the District's canal and drain system. The District is now requiring that any agencies discharging storm water into a District facility enter into a Master Storm Drainage Agreement. The City also needs to be aware that State regulatory agencies may set water quality limits on storm drain water and require treatment of those discharges. The City should plan to centralize the collection of storm drain discharges for metering and possible future treatment. District management of storm drainage discharges is presently provided as a service to the District's customers with no District charge to contributing agencies. The Master Storm Drainage Agreement provides that the District may charge fees for this service in the future.

Ground Water

The current supply of domestic water in the City of Turlock is groundwater. The basin supplying that source is recharged primarily from deep percolation of irrigation water applied to agricultural lands with some contribution by lawn watering, septic tanks, and rainfall in wet years. As the urban area spreads the amount of ground available for recharge is reduced. The water available from precipitation is removed in the storm drain facilities that accompany urban growth.

As a result of continued urbanization, a pumping cone of depression may develop under the City of Turlock. This will continue to expand and deepen as the city grows if groundwater remains the sole source of water supply. Pumping costs will increase with increasing depth to groundwater. Pumps outside the City limits may also be affected by the City's use of groundwater. A side consequence to creation and maintenance of a cone of depression in the groundwater under the city will be the potential to pull lesser quality shallow groundwater towards the City pumps.

Possible mitigation measures to the impacts on groundwater would be to supplement all or part of City of Turlock's current supply of water with surface supplies from the Turlock Irrigation District. The T.I.D. supply could be made up from the supply normally allocated to the former farm lands that have been urbanized. Another possible mitigation measure would be to divert storm water from the urban areas to regional parks that would also function as recharge areas. There would need to be a water quality review of this proposal to determine how to minimize the impact from contaminants often found in urban run off, when entering the groundwater supplies. A third mitigation is metering of water uses. This could slow down the rate of groundwater depletion, but not eliminate it.

Drinking Water

As the City of Turlock studies amending their General Plan, they should assess the effects on their drinking water supply.

As the city expands, it will need more water, and the recharge from irrigation to the underground basin will be diminished. This would not only affect the water quantity but may also affect the water quality from the city's wells. What will be the contingency plan if the water quality deteriorates so as to make the water unusable without treatment? What conservation measures are under consideration?

Sanitary Sewage

As the use of water increases, so would the sewage effluent. What provisions will be made to take care of the additional effluent?

Electric Utility

Additional electrical energy capacity, transmission and distribution facilities will be needed to accommodate growth within the District's electrical service area. Electrical rate increases may be necessary to meet the capital requirements necessary to enable the District to serve our electrical customers in an effective manner in addition to the higher cost of new electric generating resources. Some mitigation measures that should be considered include landscaping requirements, energy conservation standards, and promotion of the growth of industries which complement the District's resources rather than those whose primary power use is coincident with the District's summer peak.

Please contact me at 883-8361 if you have any questions or need any further information regarding this letter.

Sincerely,

TURLOCK IRRIGATION DISTRICT

Ted Glauser

Theodore W. Glauser, P.E.
Civil Engineering Division Manager

TWG:WS:d\M93-137

xc: Brent Harrison

REPORT AUTHORS

City of Turlock Community Development Service

Jim Hamilton
Tom Tinsley
Cydney Casper
Carol Hibbard
Mike Luevano

Consulting Team

Ellen Greenberg, AICP
Barry Miller, AICP

Rich Rodkin
Illingworth and Rodkin, Acoustical Consultants

Donald Ballanti, Meteorological Consultant

John Wilson
Wilson Engineering Company

PERSONS AND ORGANIZATIONS CONSULTED IN PREPARATION OF THE EIR

Jim Hamilton, Planning Manager, City of Turlock Community Development Services

Cydney Casper, Planner II, City of Turlock Community Development Services

Matt Falk, AgPro (Aerial Spraying), Turlock

John Gallup, San Joaquin Valley Unified Air Pollution Control District, Fresno

Gatherine Gathne, Regional Water Quality Control Board, Sacramento

Terry Rivasplata, Governor's Office of Planningi and Research, Sacramento

David Stagnaro, San Joaquin Valley Unified Air Pollution Control District, Modesto

Daryl Wiler, Stanislaus County Planning Department, Modesto

Kevin Wright, Office Duty Inspector, Stanislaus County Agriculture Department, Modesto

Steve Lowens, Dowling Associates

Stanislaus Area Association of Governments