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DEPARTMENT OF COMMUNITY DEVELOPMENT
CITY OF HEMET

FINAL ENVIRONMENTAL IMPACT REPORT SPECIFIC LAND USE PLAN SOUTHWEST AREA

PREPARED FOR
CITY OF HEMET

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TABLE OF CONTENTS

Section		Page
1.0	INTRODUCTION	1
	1.1 Authors	1
	1.2 Project Participants	2
	1.3 Statement of Objectives	2
	1.4 Location and Boundaries	2
2.0	SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES	6
3.0	DESCRIPTION OF ENVIRONMENTAL SETTING	15
	3.1 Land Use	15
	3.1.1 Zoning	16
	3.1.2 General Plan	18
	3.2 Archaeology	21
	3.3 Vegetation and Wildlife	22
	3.4 Climate and Air Quality	25
	3.5 Geology and Soils	29
	3.6 Hydrology	31
	3.7 Noise	37
	3.8 Traffic and Circulation	40
	3.9 Open Space and Conservation	50
	3.10 Public Services and Utilities	52
	3.10.1 Public Services	52
	3.10.1.1 Fire Protection	52
	3.10.1.2 Police Protection	54
	3.10.1.3 Schools	54
	3.10.1.4 Hospital Care	54
	3.10.2 Utilities	56
	3.10.2.1 Electricity	56
	3.10.2.2 Gas	58
	3.10.2.3 Water	58
	3.10.2.4 Sewage	58
	3.10.2.5 Telephone	61
	3.10.2.6 Solid Waste Disposal	61
	3.11 Energy	63

TABLE OF CONTENTS (CONTINUED)

Section		Page
4.0	DISCUSSION OF IMPACTS AND MEASURES WHICH MAY MITIGATE OR ENHANCE IMPACTS	64
4.1	Land Use Alternative No. 1 - Impacts and Measures Which May Mitigate or Enhance Impacts - Summary	64
4.1.1	Land Use	66
4.1.2	Archaeology	68
4.1.3	Vegetation and Wildlife	68
4.1.4	Climate and Air Quality	69
4.1.5	Geology and Soils	76
4.1.6	Hydrology	77
4.1.7	Noise	77
4.1.8	Traffic and Circulation	84
4.1.9	Open Space and Conservation	96
4.1.10	Public Services and Utilities	97
4.1.10.1	Fire Protection	97
4.1.10.2	Police Protection	98
4.1.10.3	Schools	98
4.1.10.4	Hospital Care	99
4.1.10.5	Electricity	100
4.1.10.6	Gas	101
4.1.10.7	Water	102
4.1.10.8	Sewage	103
4.1.10.9	Telephone	104
4.1.10.10	Solid Waste	104
4.1.11	Energy	105
4.2	Land Use Alternative No. 2 - Impacts and Measures Which May Mitigate or Enhance Impacts - Summary	108
4.2.1	Land Use	108
4.2.2	Archaeology	111
4.2.3	Vegetation and Wildlife	112
4.2.4	Climate and Air Quality	113
4.2.5	Geology and Soils	119
4.2.6	Hydrology	120
4.2.7	Noise	121
4.2.8	Traffic and Circulation	128
4.2.9	Open Space and Conservation	140
4.2.10	Public Services and Utilities	141
4.2.10.1	Fire Protection	141
4.2.10.2	Police Protection	142
4.2.10.3	Schools	142
4.2.10.4	Hospital Care	143
4.2.10.5	Electricity	143
4.2.10.6	Gas	144

TABLE OF CONTENTS (CONTINUED)

Section			Page
		4.2.10.7 Water	145
		4.2.10.8 Sewage	147
		4.2.10.9 Telephone	147
		4.2.10.10 Solid Waste	148
	4.2.11	Energy	149
4.3	Land Use Alternative No. 3 - Impacts and Measures Which May Mitigate or Enhance Impacts - Summary		152
	4.3.1	Land Use	152
	4.3.2	Archaeology	155
	4.3.3	Vegetation and Wildlife	156
	4.3.4	Climate and Air Quality	157
	4.3.5	Geology and Soils	163
	4.3.6	Hydrology	164
	4.3.7	Noise	166
	4.3.8	Traffic and Circulation	173
	4.3.9	Open Space and Conservation	185
	4.3.10	Public Services and Utilities	187
		4.3.10.1 Fire Protection	187
		4.3.10.2 Police Protection	187
		4.3.10.3 Schools	188
		4.3.10.4 Hospital Care	189
		4.3.10.5 Electricity	189
		4.3.10.6 Gas	190
		4.3.10.7 Water	191
		4.3.10.8 Sewage	193
		4.3.10.9 Telephone	194
		4.3.10.10 Solid Waste	194
	4.3.11	Energy	195
4.4	Land Use Alternative No. 4 - Impacts and Measures Which May Mitigate or Enhance Impacts - Summary		198
	4.4.1	Land Use	198
	4.4.2	Archaeology	201
	4.4.3	Vegetation and Wildlife	202
	4.4.4	Climate and Air Quality	203
	4.4.5	Geology and Soils	209
	4.4.6	Hydrology	209
	4.4.7	Noise	212
	4.4.8	Traffic and Circulation	219

TABLE OF CONTENTS (CONTINUED)

Section			Page
	4.4.9	Open Space and Conservation	231
	4.4.10	Public Services and Utilities	233
		4.4.10.1 Fire Protection	233
		4.4.10.2 Police Protection	233
		4.4.10.3 Schools	234
		4.4.10.4 Hospital Care	235
		4.4.10.5 Electricity	235
		4.4.10.6 Gas	236
		4.4.10.7 Water	237
		4.4.10.8 Sewage	240
		4.4.10.9 Telephone	241
		4.4.10.10 Solid Waste	241
	4.4.11	Energy	242
4.5	Land Use Alternative No. 5 - Impacts and Measures Which May Mitigate or Enhance Impacts - Summary		245
	4.5.1	Land Use	247
	4.5.2	Archaeology	248
	4.5.3	Vegetation and Wildlife	249
	4.5.4	Climate and Air Quality	250
	4.5.5	Geology and Soils	256
	4.5.6	Hydrology	257
	4.5.7	Noise	257
	4.5.8	Traffic and Circulation	265
	4.5.9	Open Space and Conservation	277
	4.5.10	Public Services and Utilities	278
		4.5.10.1 Fire Protection	278
		4.5.10.2 Police Protection	279
		4.5.10.3 Schools	279
		4.5.10.4 Hospital Care	280
		4.5.10.5 Electricity	281
		4.5.10.6 Gas	282
		4.5.10.7 Water	283
		4.5.10.8 Sewage	285
		4.5.10.9 Telephone	285
		4.5.10.10 Solid Waste	286
	4.5.11	Energy	286
4.6	Land Use Alternative No. 6 - Impacts and Measures Which May Mitigate or Enhance Impacts - Summary		290
	4.6.1	Land Use	292
	4.6.2	Archaeology	293
	4.6.3	Vegetation and Wildlife	294
	4.6.4	Climate and Air Quality	295
	4.6.5	Geology and Soils	301

TABLE OF CONTENTS (CONTINUED)

Section				Page
	4.6.6	Hydrology		302
	4.6.7	Noise		303
	4.6.8	Traffic and Circulation		310
	4.6.9	Open Space and Conservation		322
	4.6.10	Public Services and Utilities		323
		4.6.10.1	Fire Protection	323
		4.6.10.2	Police Protection	324
		4.6.10.3	Schools	324
		4.6.10.4	Hospital Care	325
		4.6.10.5	Electricity	326
		4.6.10.6	Gas	327
		4.6.10.7	Water	328
		4.6.10.8	Sewage	329
		4.6.10.9	Telephone	330
		3.6.10.10	Solid Waste	330
	4.6.11	Energy		332
4.7	Land Use Alternative No. 7 - Impacts and Measures Which May Mitigate or Enhance Impacts - Summary			334
	4.7.1	Land Use		334
	4.7.2	Archaeology		337
	4.7.3	Vegetation and Wildlife		338
	4.7.4	Climate and Air Quality		338
	4.7.5	Geology and Soils		344
	4.7.6	Hydrology		345
	4.7.7	Noise		347
	4.7.8	Traffic and Circulation		353
	4.7.9	Open Space and Conservation		355
	4.7.10	Public Services and Utilities		366
		4.7.10.1	Fire Protection	366
		4.7.10.2	Police Protection	367
		4.7.10.3	Schools	367
		4.7.10.4	Hospital Care	368
		4.7.10.5	Electricity	369
		4.7.10.6	Gas	370
		4.7.10.7	Water	371
		4.7.10.8	Sewage	372
		4.7.10.9	Telephone	373
		4.7.10.10	Solid Waste	373
	4.7.11	Energy		374
5.0	FISCAL IMPACT ANALYSIS			377
6.0	IRREVERSIBLE ENVIRONMENTAL IMPACTS			385

TABLE OF CONTENTS (CONTINUED)

Section		Page
7.0	RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TEM PRODUCTIVITY	386
8.0	THE GROWTH INDUCING IMPACT OF THE PROPOSED PROJECT	387
9.0	REFERENCES	389
	APPENDIX A	390
	APPENDIX B	412

LIST OF FIGURES

Figure		Page
1	REGIONAL MAP	3
2	LOCAL MAP	5
3	SUMMARY OF IMPACTS MATRIX	7
4	LAND USE ALTERNATIVE MAPS	8
5	ZONING MAP	17
6	GENERAL PLAN	19
7	ARCHAEOLOGICALLY SENSITIVE AREAS	23
8	TYPICAL WIND PATTERNS	27
9	SEISMIC HAZARDS MAP	30
10	LAND USE/RISK MATRIX	32
11	STORM DRAINAGE MAP	34
12	FLOODWAY AND FLOODPLAIN MAP	35
13	HEMET AREA DRAINAGE MAP	36
14	HEMET-RYAN AIRPORT NOISE CONTOUR MAP	38
15	SOUTHWEST AREA CIRCULATION SYSTEMS	41
16	PLAN OF STREETS AND HIGHWAYS	42
17	MASTER PLAN OF HIGHWAYS	43
18	TYPICAL CROSS-SECTIONS	44
19	SOIL CAPABILITY AND OPEN SPACE MAP	51
20	PUBLIC SERVICES LOCATION MAP	53
21	SCHOOL SITE LOCATION MAP	55
22	ELECTRICAL SERVICE AND GAS SUPPLY MAP	57
23	SEWAGE LINES AND TREATMENT FACILITIES	59
24	WATER SUPPLY MAP	60
25	TELEPHONE DISTRIBUTION LINES	62
26	ALTERNATIVE #1 LAND USE MAP	65
27	NOISE IMPACTED ROADWAY ALTERNATIVE #1	80
28	DAILY TRAFFIC DISTRIBUTION	88
29	ALTERNATIVE #2 LAND USE MAP	109
30	NOISE IMPACTED ROADWAY SEGMENTS	124

LIST OF FIGURES (CONTINUED)

Figure		Page
31	DAILY TRAFFIC DISTRIBUTION ALTERNATIVE #2	132
32	ALTERNATIVE #3 LAND USE MAP	153
33	LAND USE ALTERNATIVE #3 NOISE IMPACTED ROADWAY SEGMENTS	169
34	DAILY TRAFFIC DISTRIBUTION ALTERNATIVE #3	177
35	ALTERNATIVE #4 LAND USE MAP	199
36	ALTERNATIVE #4 NOISE IMPACTED ROADWAY SEGMENTS	213
37	DAILY TRAFFIC DISTRIBUTION ALTERNATIVE #4	223
38	ALTERNATIVE #5 LAND USE MAP	246
39	NOISE IMPACTED ROADWAY SEGMENTS ALTERNATIVE #4	261
40	DAILY TRAFFIC DISTRIBUTION ALTERNATIVE #4	269
41	ALTERNATIVE #6 LAND USE MAP	291
42	NOISE IMPACTED ROADWAY SEGMENTS ALTERNATIVE #6	306
43	DAILY TRAFFIC DISTRIBUTION ALTERNATIVE #6	314
44	ALTERNATIVE #7 LAND USE MAP	335
45	NOISE LEVELS ON APPLICABLE ROADWAY SEGMENTS - ALTERNATIVE #7	350
46	DAILY TRAFFIC DISTRIBUTION - ALTERNATIVE #7	357
47	RANGE OF TYPICAL OUTDOOR NOISE ENVIRONMENT	392

LIST OF TABLES

Table		Page
1	EXISTING LAND USE IN SOUTHWEST AREA	15
2	FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS	28
3	SOUTHWEST AREA TRAFFIC VOLUMES	49
4	LIST OF SERVICING SCHOOLS	54
5	EMISSIONS FROM USE OF NATURAL GAS	71
6	EMISSIONS FROM ELECTRICITY GENERATION	72
7	EMISSIONS FROM MOTOR VEHICLES	73
8	TOTAL PROJECT EMISSIONS	74
9	CALCULATED LDN EXPOSURE LEVELS	81
10	TRAFFIC GENERATION FORECAST- ALTERNATIVE 1	85
11	PARKING REQUIREMENTS - ALTERNATIVE 1	93
12	PROJECT EMISSIONS FROM USE OF NATURAL GAS	114
13	EMISSIONS ASSOCIATED WITH ELECTRICITY GENERATION	115
14	EMISSIONS ASSOCIATED WITH MOTOR VEHICLES	116
15	ESTIMATED TOTAL PROJECT EMISSIONS	118
16	CALCULATED LDN EXPOSURE LEVELS	125
17	TRAFFIC GENERATION FORECAST - ALTERNATIVE 2	129
18	PARKING REQUIREMENTS - ALTERNATIVE 2	137
19	PROJECT EMISSIONS - USE OF NATURAL GAS	158
20	PROJECT EMISSIONS - ELECTRICITY GENERATION	159
21	ESTIMATED MOTOR VEHICLE EMISSIONS	160
22	ESTIMATED TOTAL PROJECT EMISSIONS	162
23	CALCULATED LDN EXPOSURE LEVELS	170
24	TRAFFIC GENERATION FORECAST - ALTERNATIVE 3	174
25	PARKING REQUIREMENTS - ALTERNATIVE 3	182
26	PROJECT EMISSIONS - NATURAL GAS	204
27	project emissions - ELECTRICITY GENERATION	205
28	PROJECT EMISSIONS - MOTOR VEHICLES	207
29	ESTIMATED TOTAL PROJECT EMISSIONS	208
30	CALCULATED LDN EXPOSURE LEVELS	214

LIST OF TABLES (CONTINUED)

Table		Page
31	TRAFFIC GENERATION FORECAST - ALTERNATIVE 4	220
32	PARKING REQUIREMENTS - ALTERNATIVE 4	228
33	EMISSIONS - NATURAL GAS	251
34	EMISSIONS - ELECTRICITY GENERATION	253
35	EMISSIONS - MOTOR VEHICLES	254
36	ESTIMATED TOTAL PROJECT EMISSIONS	255
37	CALCULATED LDN EXPOSURE LEVELS	262
38	TRAFFIC GENERATION FORECAST	266
39	PARKING REQUIREMENTS - ALTERNATIVE 5	274
40	PROJECT EMISSIONS - NATURAL GAS	297
41	PROJECT EMISSIONS - ELECTRICITY GENERATION	298
42	PROJECT EMISSIONS - MOTOR VEHICLES	299
43	TOTAL PROJECT EMISSIONS	300
44	CALCULATED LDN EXPOSURE LEVELS	307
45	TRAFFIC GENERATION FORECAST - ALTERNATIVE 6	311
46	PARKING REQUIREMENTS - ALTERNATIVE 6	319
47	PROJECT EMISSIONS - NATURAL GAS	340
48	PROJECT EMISSIONS - ELECTRICITY GENERATION	341
49	PROJECT EMISSIONS - MOTOR VEHICLES	342
50	TOTAL PROJECT EMISSIONS	343
51	CALCULATED LDN EXPOSURE LEVELS	351
52	TRAFFIC GENERATION FORECAST - ALTERNATIVE 7	352
53	PARKING REQUIREMENTS - ALTERNATIVE 7	362
54	CUMULATIVE DEVELOPMENT CHARACTERISTICS FOR SOUTHWEST HEMET GENERAL PLAN LAND USE ALTERNATIVES	378
55	COMPARISON OF CUMULATIVE REVENUES AND COSTS	379
56	COMPARISON OF ANNUAL REVENUES AND COSTS	380
57	COMPARISONS OF TOTAL REVENUES ON A CASH FLOW BASIS	382
58	COMPARISONS OF TOTAL COSTS ON A CASH FLOW BASIS	383

APPENDIX

Table		Page
59	ANNUAL OPERATIONS BY AIRCRAFT TYPE	396
60	FLIGHT PATHS AT HEMET-RYAN AIRPORT	397
61	ANNUAL OPERATIONS BY FLIGHT TRACK	398
62	TAKE OFF NOISE CURVES	399
63	APPROACH NOISE CURVES	400
64	TAKE OFF PROFILES FIRE BOMBER AIRCRAFT	401
65	COMPARISON OF C-119 AND C-119J NOISE FOR TAKE OFF OPERATIONS	402
66	CONTRIBUTIONS OF VARIOUS AIRCRAFT TYPES TO A POINT WHOSE TOTAL LDN IS 64 dB	403
67	HIGHWAY TRAFFIC NOISE VARIABLES - ALTERNATIVE 1	405
68	HIGHWAY TRAFFIC NOISE VARIABLES - ALTERNATIVE 2	406
69	HIGHWAY TRAFFIC NOISE VARIABLES - ALTERNATIVE 3	407
70	HIGHWAY TRAFFIC NOISE VARIABLES - ALTERNATIVE 4	408
71	HIGHWAY TRAFFIC NOISE VARIABLES - ALTERNATIVE 5	409
72	HIGHWAY TRAFFIC NOISE VARIABLES - ALTERNATIVE 6	410
73	HIGHWAY TRAFFIC NOISE VARIABLES - ALTERNATIVE 7	411

1.0 INTRODUCTION

A Draft Specific Land Use Plan for the Southwest Area is being considered for inclusion into the Hemet General Plan. The purpose of the Specific Land Use Plan is to identify certain critical issues in planning for the Southwest Area, to define the goals and objectives for development of the study area and the environmental and manmade constraints on development, and to provide a plan consisting of a framework of policies and standards guiding land use decisions for the Southwest Area. The scope of this report is based on the Land Use Alternatives recommended in the Draft Specific Land Use Plan for Southwest Area and recommendations made by the City and County Planning Commissions.

The seven Land Use Alternatives indicate the desirable maximum residential population capacities possible in the Southwest Area, based on the environmental constraints of flooding, development within noise contours and development on steep slopes. These alternative land use plans are incremental in that a choice of one alternative does not preclude all other options. The Land Use Alternatives may be incrementally combined into Growth Strategies which provide decision-makers with future growth options compatible with constraints and trends. In this manner, public facility extensions, physical improvements which mitigate hazards, and future growth pressures may all be considered by decision-makers in determining the maximum desired population capacity for the Southwest Area.

1.1 Authors

This report has been prepared by the Environmental Studies Department of Ultrasystems, Inc., of Irvine, California. Ultrasystems has been contracted to provide consulting services to environmental considerations and evaluations concerning the proposed Southwest Area Land Use Alternatives.

Ultrasystems, Inc., is a management, environmental, engineering and social science firm with particular specialization and expertise in the field of environmental science and technology.

1.2 Project Participants

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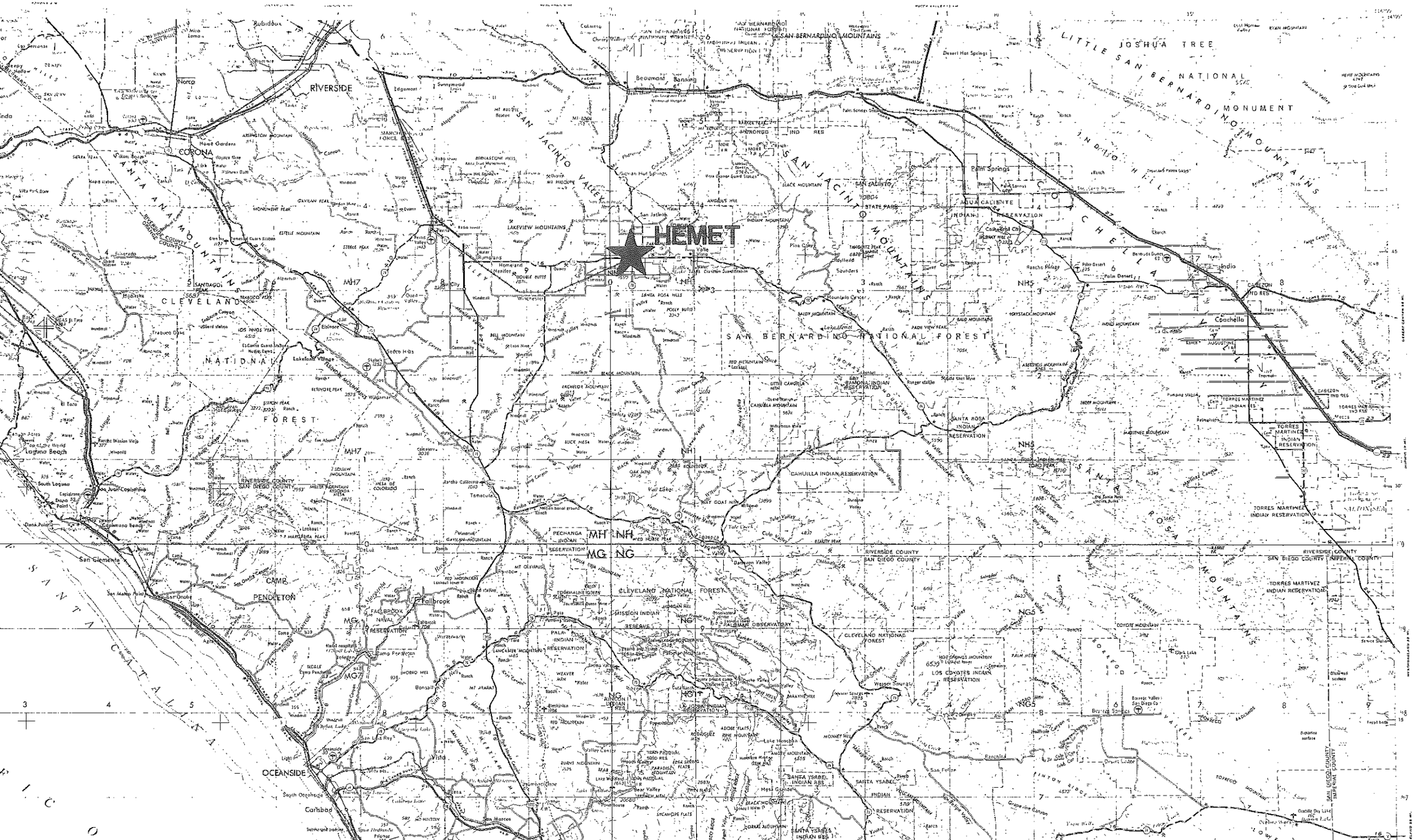
1.3 Statement of Objectives

The purpose of this report is to identify the possible environmental impacts which could result from the implementation of seven Land Use Alternatives intended to manage the amount, location and pattern of growth in the Southwest Area. The existing environmental setting and the environmental and manmade constraints will be defined. A comparison of the impacts resulting from each land use option will enable decision-makers to determine the most suitable short-term and long-term planning approach.

1.4 Location and Boundaries

Regional

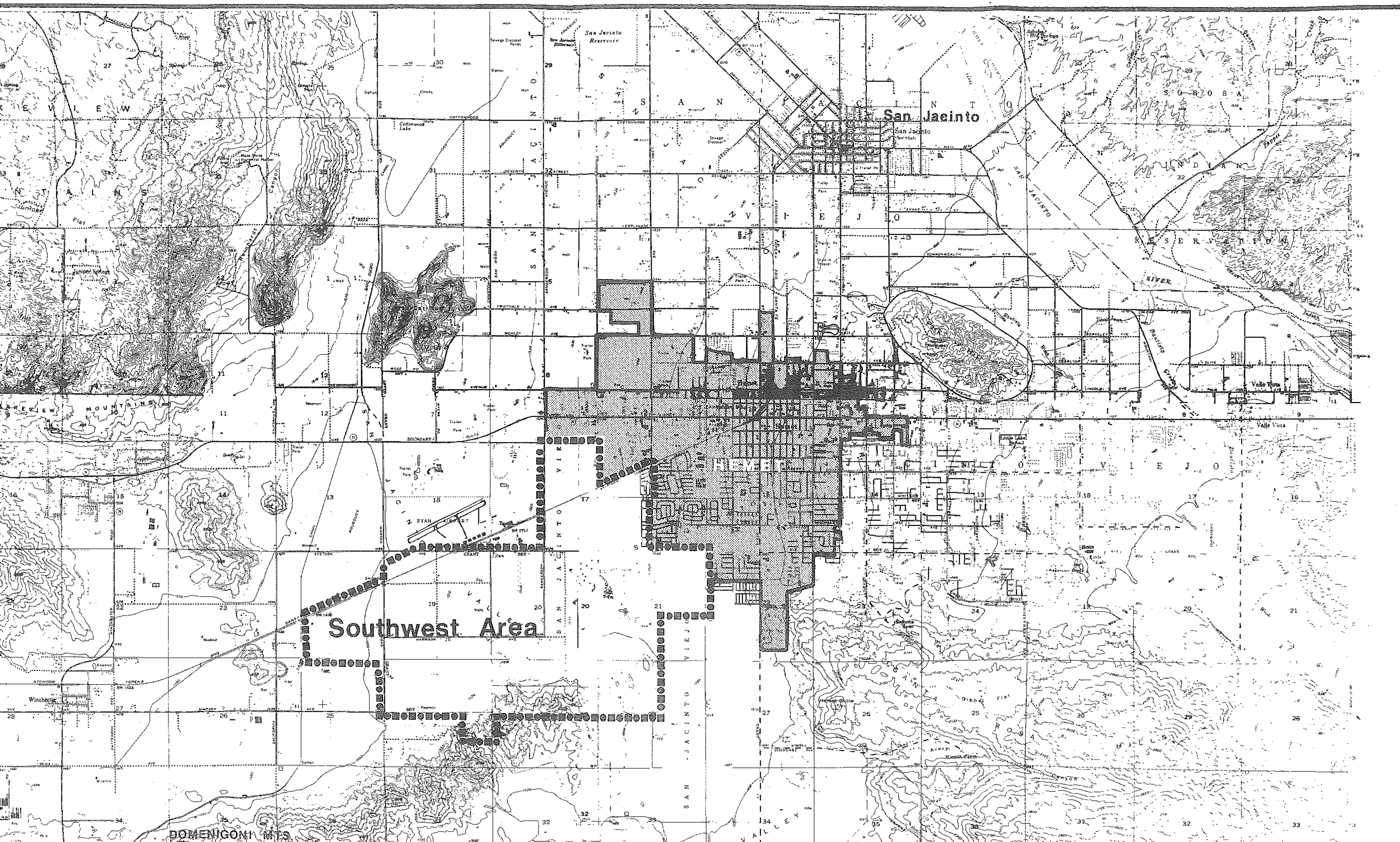
The project site, referred to as the Southwest Area, is located in the south central area of the San Jacinto Valley in the City of Hemet, Riverside County, as shown in Figure 1. The valley is cradled by nearly 360° of mountains and rolling hills. The San Jacinto Mountains span to the north and the east; the Santa Rosa Hills and the Domenigoni Mountains to the south and the Lakeview Mountains to the west.


HEMET
RIVERSIDE
CORONA
Norco
Edgemont
Sunnymead
Beaumont
Banning
Palm Springs
Indio
Coachella
Temecula
Fallbrook
OCEANSIDE
Carlsbad
San Clemente
Laguna Beach
Lakeland Village
Elsinore
Hemet
San Jacinto
Perris
Winchester
Homeland
Menifee
Sedco Hills
Mountain Center
Palm Desert
Indio Hills
Coachella Valley
Little San Bernardino Mountains
Joshua Tree National Monument
San Bernardino Mountains
San Jacinto Mountains
San Jacinto Valley
Santa Ana Mountains
Santa Rosa Mountains
Cleveland National Forest
San Bernardino National Forest
Camp Pendleton
Pechanga Indian Reservation
Cahuilla Indian Reservation
Ramona Indian Reservation
Santa Rosa Indian Reservation
Torres Martinez Indian Reservation
Los Coyotes Indian Reservation
Santa Ysabel Indian Reservation
Mission Indian Reservation
Pala Indian Reservation
Rincon Indian Reservation
Agua Caliente Indian Reservation
Palomar Observatory
Riverside County
San Diego County
Imperial County
Orange County
Santa Catalina
Pacific Ocean
MH7
MH
NH
NH1
NH5
MG
NG
MG7
NG1
NG5

Local

The Southwest Area is comprised of 2,694 acres within the City of Hemet and 547 acres of unincorporated land within the County of Riverside, southwest of Hemet. The Southwest Area of Hemet remains comparatively rural, and comprises nearly 40 percent of the City's total acreage and 70 percent of the undeveloped land in Hemet. Hemet has a population of about 20,800, but most of the population is concentrated on 30 percent of the land.

The Southwest Area extends south from the Hemet-Ryan Airport, west to the San Diego Aqueduct, south into the Domenigoni Mountains and as far east as Palm Avenue. Figure 2 presents the exact boundaries of the Southwest Area.


San Jacinto
Hemet
Southwest Area
DOMENIGONI MTS
MOUNTAINS
Valle Vista
RESERVATION
RIVER
RYAN AIRPORT
Winchester
Little Lake School
Hemet Butte
San Jacinto Reservoir
Juniper Springs
Juniper Flat
Canyon
Sewage Disposal Ponds
Cottonwood Lake
COTTONWOOD AVE
ESPLANADE AVE
MENLO AVE
FRUITVALE AVE
COMMONWEALTH AVE
WASHINGTON AVE
LINCOLN AVE
STETSON AVE
GRANT AVE
BOUNDARY
SIMPSON AVE
ATCHISON
TOPEKA
OLIVE AVE
BERKELEY AVE
FLORIDA AVE
CALIFORNIA AVE
WARREN
SANDERSON
SAN JACINTO
Bautista
Indian Creek
Trailer Park
Valle Vista

2.0 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The following section provides a summary of environmental impacts and mitigation measures for each of the seven Land Use Alternatives. For comparative purposes, a Summary of Impacts Matrix is presented in Figure 3. Figure 4 illustrates each of the seven Land Use Alternative maps, to provide a better understanding of the differences between the alternative plans.

Land Use Impact

Land Use Alternatives 1 and 3 would restrict residential development within the 55 Ldn noise contour. Land Use Alternatives 2, 4, 5, 6 and 7 would permit low-density residential development within the 55 Ldn noise contour. Alternative 1 would result in a maximum growth of 9,390 people on 930 acres suitable for residential development. Gross densities of 2.9 people/acre and 1.5 dwelling units/acre would be allowed. Approximately 76% of the Southwest Area will remain in agricultural/open space uses. Approximately 166 acres of industrial land and 11 acres of commercial land would be available.

Alternative 2 would result in a maximum growth of 19,890 people on 1,989 acres suitable for residential development. Gross densities of 4.1-6.1 people/acre and 2.2-3.2 dwelling units/acre would be allowed. Approximately 45% of the Southwest Area will remain in agricultural/open space uses. Approximately 88 acres of industrial land and 23 acres of commercial land would be available.

Alternative 3 would result in a maximum growth of 16,040 people on 1,593 acres suitable for residential development. Gross densities of 4.1-6.1 people/acre and 2.2-3.2 dwelling units/acre would be allowed. Approximately 45% of the Southwest Area will remain in agricultural/open space uses. Approximately 166 acres of industrial land and 14 acres of commercial land would be available.

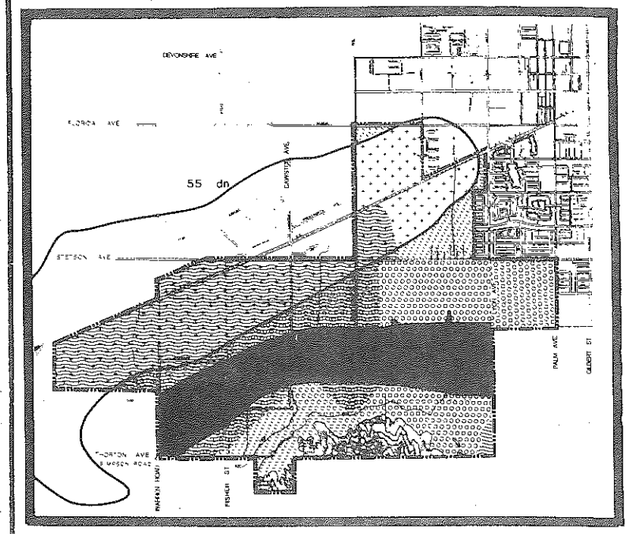
Alternative 4 would result in a maximum growth of 26,540 people on 2,643 acres suitable for residential development. Gross densities of 7.4 people/acre and 3.9 dwelling units/acre would be allowed. Approximately 15% of the Southwest Area will remain in agricultural/open space uses. Approximately 88 acres of industrial land and 27 acres of commercial land would be available.

LAND USE ALTERNATIVES	RESIDENTIAL ACREAGE	POPULATION	% OPEN SPACE	TRAFFIC (VEHICLE TRIP ENDS/Day)	AIR QUALITY EMISSIONS (POUNDS/DAY)	FIRE PERSONNEL	POLICE PERSONNEL	SCHOOLS (STUDENTS)	HOSPITAL CARE (BEDS)	ELECTRICITY	GAS	WATER	SEWAGE	SOLID WASTE	REVENUE TO COST RATIO (IN TODAY'S DOLLARS)
ALTERNATIVE 1	930	9,390	29%	57,510	4,960	9	13	1,432	35	.07 MgW/mo	55.4 Mcf/mo	40 MG/mo	3.8 MGD	41.6 T/D	.689
ALTERNATIVE 2	1,989	19,890	22%	113,400	2,829	28	29	3,065	75	.14 MgW/mo	134.7 Mcf/mo.	95 MG/mo	2.2 MGD	42.2 T/D	.684
ALTERNATIVE 3	1,593	16,040	45%	92,800	6,764	16	23	2,470	56	.10 MgW/mo	100.7 Mcf/mo	65 MG/mo	1.9 MGD	50.3 T/D	.726
ALTERNATIVE 4	2,643	26,540	15%	149,000	11,708	27	38	4,091	93	.18 MgW/mo	300.8 Mcf/mo	211 MG/mo	2.8 MGD	50.8 T/D	.749
ALTERNATIVE 5	1,762	10,400	28%	64,550	1,346	10	15	1,602	36	.05 MgW/mo.	49.9 Mcf/mo	29 MG/mo	1.3 MGD	41.1 T/D	.569
ALTERNATIVE 6	2,500	18,135	18%	84,000	6,741	18	26	2,793	63	.09 MgW/mo	82.7 Mcf/mo	51 MG/mo	2.0 MGD	51.2 T/D	.619
ALTERNATIVE 7	2,286	17,870	17%	94,500	8,599	18	26	2,752	63	.10 MgW/mo	84.3 Mcf/mo	42 MG/mo	2.5 MGD	95.0 T/D	.459

Source: ULTRASYSTEMS, INC.

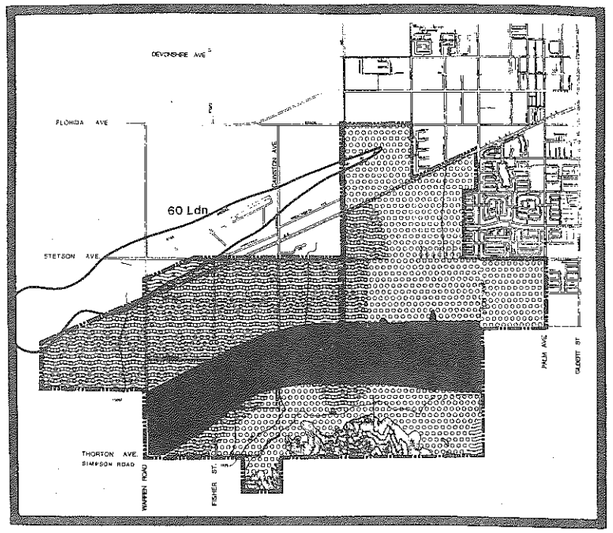
Title: SUMMARY OF IMPACTS MATRIX

3



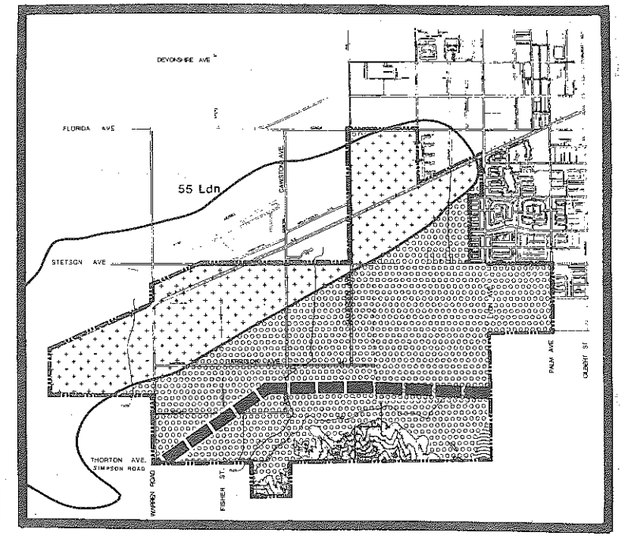
LAND USE ALTERNATIVE NO. 1

Assume "no residential subdivisions with noise contours greater than 55 Ldn contour, the floodway and on steep slopes." This leaves 930 acres suitable for residential subdivisions in the Southwest Area, or a total of 9,390 people.



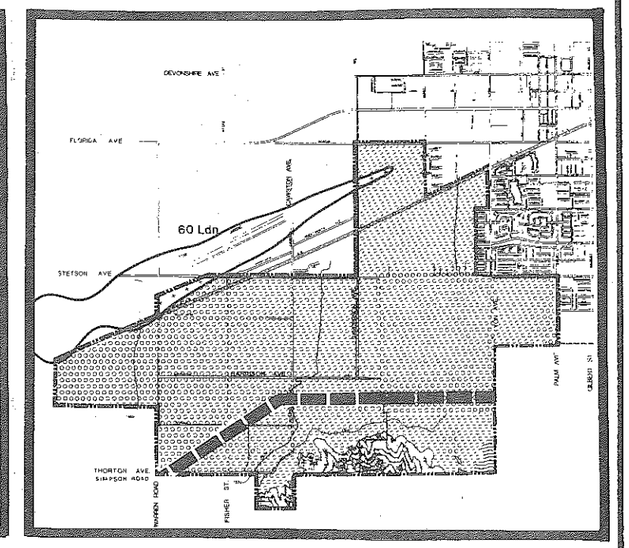
LAND USE ALTERNATIVE NO. 2

Assume "no residential subdivisions located within noise contours greater than 60 Ldn contours, the floodway and on steep slopes." This leaves 1,989 acres suitable for residential subdivisions in the Southwest Area, or a total of 19,890 people.



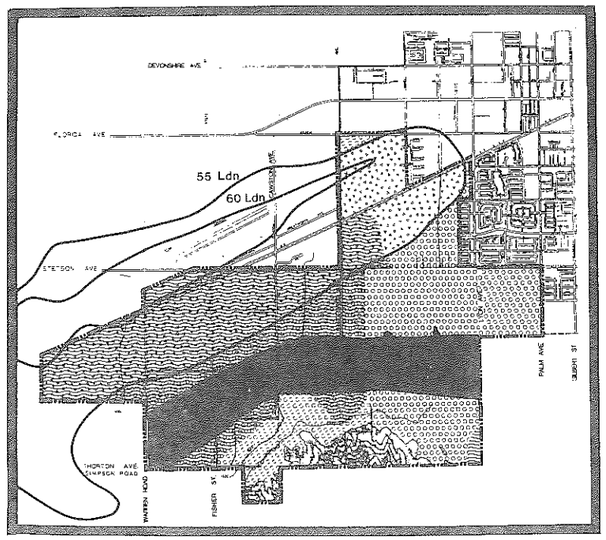
LAND USE ALTERNATIVE NO. 3

Assume "no residential subdivisions within noise contours greater than the 55 Ldn contour and on steep slopes, and the construction of a flood control channel." This leaves 1,593 acres suitable for residential subdivisions in the Southwest Area, or a total of 16,040 people.



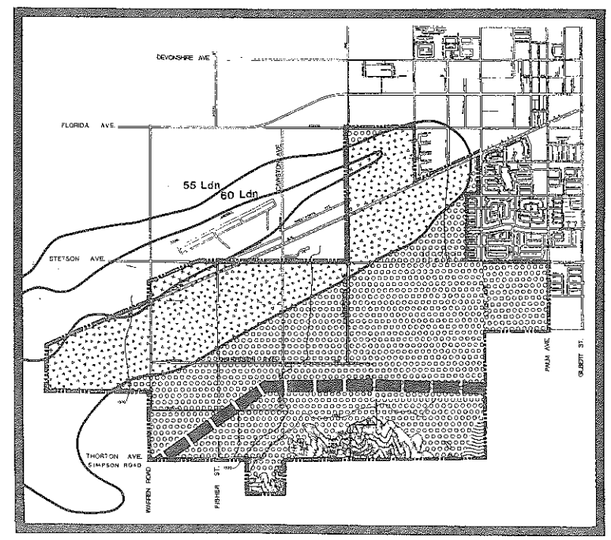
LAND USE ALTERNATIVE NO. 4

Assume "no residential subdivisions located within noise contours greater than the 60 Ldn contour and on steep slopes, and the construction of a flood control channel." This leaves 2,643 acres suitable for residential subdivisions in the Southwest Area, or a total of 26,540 people.



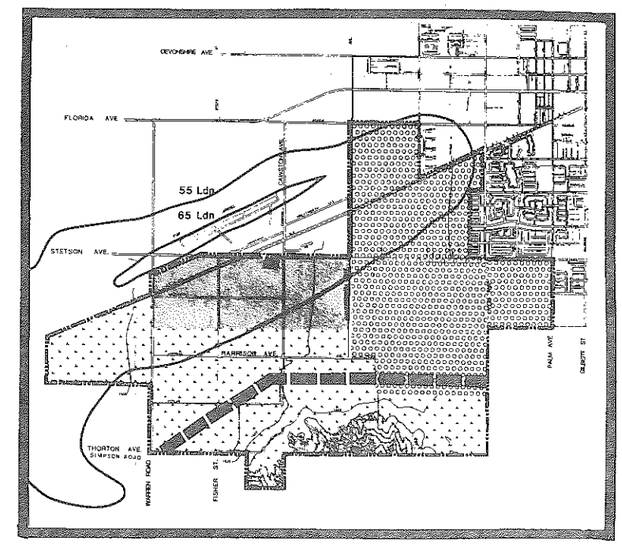
LAND USE ALTERNATIVE NO. 5

Assume "no residential subdivisions located within noise contours greater than the 60 Ldn contours, the floodway and on steep slopes." This leaves 1,762 acres suitable for residential subdivisions in the Southwest Area, or a total of 10,400 people.



LAND USE ALTERNATIVE NO. 6

Assume "no residential subdivisions located within noise contours greater than the 60 Ldn contours and on steep slopes, and the construction of a flood control channel." This leaves 2,500 acres suitable for residential subdivisions in the Southwest Area, or a total of 18,135 people.



LAND USE ALTERNATIVE NO. 7

Assume "no residential subdivisions located within noise contours greater than 60 Ldn contours and on steep slopes, and the construction of a flood control channel." This leaves 2,286 acres suitable for residential subdivisions in the Southwest Area, or a total of 17,870 people.

Ldn NOISE CONTOUR

ULTIMATE FLOOD CONTROL CHANNEL

FLOOD PLAIN
100-YEAR INUNDATION

FLOODWAY

NON-RESIDENTIAL USES AS PER FLOOD INSURANCE PROGRAM

NON-RESIDENTIAL USES

RESIDENTIAL USES AS PER FLOOD INSURANCE PROGRAM

RESIDENTIAL USES AVG. 5.4 DU/ACRE

LOW-DENSITY RESIDENTIAL USES AS PER FLOOD INSURANCE PROGRAM

LOW-DENSITY RESIDENTIAL USES 1DU/2.5 ACRES

AGRICULTURAL 1 DU/2 acres

INDUSTRIAL

COMMERCIAL

0' 3000' 6000'

NORTH

Source: ULTRASYSTEMS, INC.

Title: LAND USE ALTERNATIVE MAPS

4

Alternative 5 would result in a maximum growth of 10,400 people on 1,762 acres suitable for residential development. Very low density residential development of one dwelling unit per 2.5 acres or more will be permitted within the 55 Ldn noise contour, including 823 acres. The remaining 939 acres of residential development will have a density of 5.4 dwelling units per acre. Approximately 50% of the Southwest Area will remain in agricultural/open space uses. Approximately 155 acres of industrial land and 12 acres of commercial land would be available.

Alternative 6 would result in a maximum growth of 18,135 people on 2,500 acres suitable for residential development. Very low density residential development of one dwelling unit per 2.5 acres or more will be permitted within the 55 Ldn noise contour, including 817 acres. The remaining 1413 acres of residential development will have a gross density of 5.4 dwelling units per acre. Approximately 18% of the Southwest Area will remain in agricultural/open space uses. Approximately 155 acres of industrial land and 18 acres of commercial land would be available.

Alternative 7 would result in a maximum growth of 14,277 people on 2,286 acres suitable for residential development. Very low density residential development of one dwelling unit per 2 acres or more will be permitted on 1,380 acres. Moderate density residential development of a maximum of 7 dwelling units per acre will be permitted on 906 acres. Approximately 17% of the Southwest Area will remain in agricultural/open space uses. Approximately 418 acres of industrial land and 2 acres of commercial land would be available.

All seven of the alternative will result in the loss of prime agricultural land.

Mitigation Measures

- Increased coordination between Riverside County, LAFCO, and the City of Hemet will provide the City with necessary planning controls mitigating incompatible land uses and conflicting development standards.

Archaeological Impact

Future development according to any of the seven Land Use alternatives could result in the possible destruction, impairment or removal of artifacts and features.

Mitigation Measures

- Future development sites must be surveyed for archaeological resources and mitigation measures recommended on the basis of finds.

Vegetation and Wildlife Impacts

Existing vegetation and wildlife of the Southwest Area will be dislocated or destroyed.

Mitigation Measures

- Preservation of open space/agricultural uses will provide a habitat for relocation of some wildlife species. Alternative 1 retains 70% of the Southwest Area as open space/agricultural use, Alternative 2 retains 22%, Alternative 3 retains 45%, Alternative 4 retains 15%, Alternative 5 retains 28%, and Alternative 6 retains 18%, Alternative 7 retains 17% of the Southwest Area as open space/agricultural use.

Climate and Air Quality Impact

All seven Land Use Alternatives will result in increased pollutant emissions in the Hemet-San Jacinto Valley.

Mitigation Measures

- Mass transit systems can be encouraged to reduce vehicle miles driven. Neighborhood commercial uses should be provided adjacent to residential development.

Geology and Soils Impact

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone. The landform of the Southwest Area will be altered by grading for structures and flood control improvements.

Mitigation Measures

- Engineering soils investigations should be required for all new construction within the Southwest Area.

Hydrology Impact

Land Use Alternatives 1, 2 and 5 do not include a fully improved flood control channel to reduce flood hazard. Land Use Alternatives 3, 4, 6 and 7 include a fully improved flood control channel capable of reducing the flood hazards from a 100-year frequency flood.

Mitigation Measures

- According to Alternatives 1, 2 and 5, development will be restricted within the floodway. Implementation of the measures required in the Federal Flood Insurance Program will mitigate the flood hazard in the flood plain. According to Alternatives 3, 4, 6 and 7, a fully improved flood channel will reduce the flood hazard to permit residential development of floodway land.

Noise Impact

Noise impacts may result from aircraft operations at Hemet-Ryan Airport near the 55 Ldn contour area during fire bomber activities. Noise impacts will exist in the Southwest Area due to vehicle traffic. Traffic generated from any of the Land Use Alternatives will create a significant increase in traffic noise levels in the City of Hemet. Interim noise impacts could result due to local construction and farming activities.

Mitigation Measures

- For Land Use Alternatives 1 and 3, restricting residential development within the 55 Ldn contour area will minimize potential adverse noise impacts from local aircraft operations. For Land Use Alternatives 2, 4, 5, 6 and 7, restricting residential development within the 60 Ldn contour area will minimize potential adverse noise impacts from local aircraft operations, provided that average interior noise levels will not exceed 45 dB. Acoustical site planning and architectural design, including the incorporation

of noise barriers, would minimize highway noise impacts. Construction activity should be limited to the hours of 7 AM to 7 PM and at no time on weekends or legal holidays. Farming activities within or near the Southwest Area should not be conducted during the nighttime hours when possible.

- Applicants for residential development within the 55 dB Ldn noise contour in the City of Hemet will be required to record on an appropriate document (such as subdivision public report, deed, or lease) information that clearly imparts to any prospective resident that the predicted noise level for the site is expected to exceed 55 dBA by 1986, as specified in the "Hemet-Ryan Airport Land Use Plan".

Traffic Impact

Development of the Southwest Area according to Alternative 1 would result in a traffic generation potential of 57,510 vehicle trip ends per day, evenly distributed between inbound and outbound. Alternative 2 would generate 113,400 vehicle trip ends per day. Alternative 3 would generate 92,800 vehicle trip ends per day. Alternative 4 would generate 149,000 vehicle trip ends per day. Alternative 5 would generate 64,550 vehicle trip ends per day. Alternative 6 would generate 84,000 vehicle trip ends per day. Alternative 7 would generate 95,500 vehicle trip ends per day.

Stetson Avenue would receive the greatest impact from traffic generated by development in the Southwest Area, with all other roadways in the Southwest Area also receiving a significant traffic impact. Traffic generated by development in the Southwest Area would increase daily vehicle miles travelled. Capacity deficiencies could develop along Stetson Avenue should Harrison Avenue not be extended easterly to Lyon Avenue.

Mitigation Measures

- Roadways in the Southwest Area should be constructed and improved to their master planned standards. All planned local collector streets should be constructed to Riverside County and Hemet General Plan standards. Traffic signals should be installed

where warrented. Sufficient off-street parking to meet anticipated parking demand should be provided. Land use patterns, intensities, and relationships should be established which would reduce vehicle trip making characteristics and promote the use of alternative modes of travel, including bike paths and design for bus stops.

Open Space and Conservation Impact

Development according to any of the Land Use Alternatives will result in the loss of prime agricultural land and open space.

Mitigation Measures

- Development should include open space, parks and recreation facilities.

Public Services and Utilities Impact

Development according to any of the Land Use Alternatives will result in an increased demand for all public services and utilities. Actual consumption and demand generated by each alternative is shown in Figure 3, Summary of Impacts Matrix.

Mitigation Measures

- Fire Protection - Adequate design features should be incorporated into all new developments. Two new fire stations are proposed.
- Police Protection - Adequate street and security design features should be incorporated into all new developments.
- Schools - Measures such as year-round-schools, extended day sessions, double sessions, portable classrooms, bond issues and implementation of SB-201 may be required.
- Hospital and Emergency Services - The new medical-surgical unit will help mitigate the increased demand.
- Electricity - Energy conservation measures should be incorporated into all building designs.
- Gas - Energy conservation measures should be incorporated into all building designs, as recommended by the Gas Company.

- Water - Water conservation measures should be practiced, such as low flow shower heads and faucets, and low volume toilets.
- Sewage - At some time in the future, developer fees will help finance new sewer mains. Development should not occur until a new treatment facility is built.
- Telephone - No mitigation measures are proposed.
- Solid Waste - Separation of wastes at the source could be encouraged to facilitate resource reclamation and recycling.

Revenue/Costs

Land Use Alternative 1 could result in a revenue to cost ratio of .689 in today's dollars. Land Use Alternative 2 could result in a revenue to cost ratio of .684 in today's dollars. Land Use Alternative 4 could result in a revenue to cost ratio of .726 in today's dollars. Land Use Alternative 4 could result in a revenue to cost ratio of .749 in today's dollars. Land Use Alternative 5 could result in a revenue to cost ratio of .569 in today's dollars. Land Use Alternative 6 could result in a revenue to cost ratio of .619 in today's dollars. Alternative 7 could result in a revenue to cost ratio of .459 in today's dollars.

Mitigation Measures

- Special assessment districts for new construction could help defray some added service costs. One-time developer fees will also help defray added costs.

3.0 DESCRIPTION OF ENVIRONMENTAL SETTING

3.1 Land Use

The Southwest Area is primarily developed in agricultural uses. In the total 3,241 acre area, approximately 3,238 acres are under cultivation, in open space, in residential, or in mobile home park use. Approximately 20 residences and related agribusiness structures are located adjacent to the cultivated land. The 545 acre area known as Seven Hills, located in the eastern portion of the Southwest Area, contains 222 acres of existing development and a 149.5 acre golf course. The existing Seven Hills development includes 564 mobile home spaces, 49 Garden Apartments and 272 single-family residential dwelling units currently under construction. There are a few light industries located on 3 acres located on the southeast corner of Sanderson and Stetson Avenues. The hillside areas of the Domenigoni Mountains remain undeveloped at this time. Table 1 provides a breakdown of existing land use in the Southwest Area.

TABLE 1

EXISTING LAND USE IN SOUTHWEST AREA

	ACRES
City of Hemet	
Agricultural/Residential/Open Space	2,691
Industrial	3
TOTAL	2,694
County of Riverside	
Agricultural/Residential/Open Space	547
TOTAL ACREAGE IN PROJECT AREA	3,241

Land uses surrounding the Southwest Area include the Hemet-Ryan Airport, mobile home parks, some industry to the north and at Stetson and Sanderson Avenues, the Domenigoni Mountains and an area known as San Jacinto Viejo to the south; urbanized areas of Hemet, mostly residential, lie east of the Southwest Area; and the San Diego Aqueduct, an unnamed 1100' hill, and scattered ranches lie to the west.

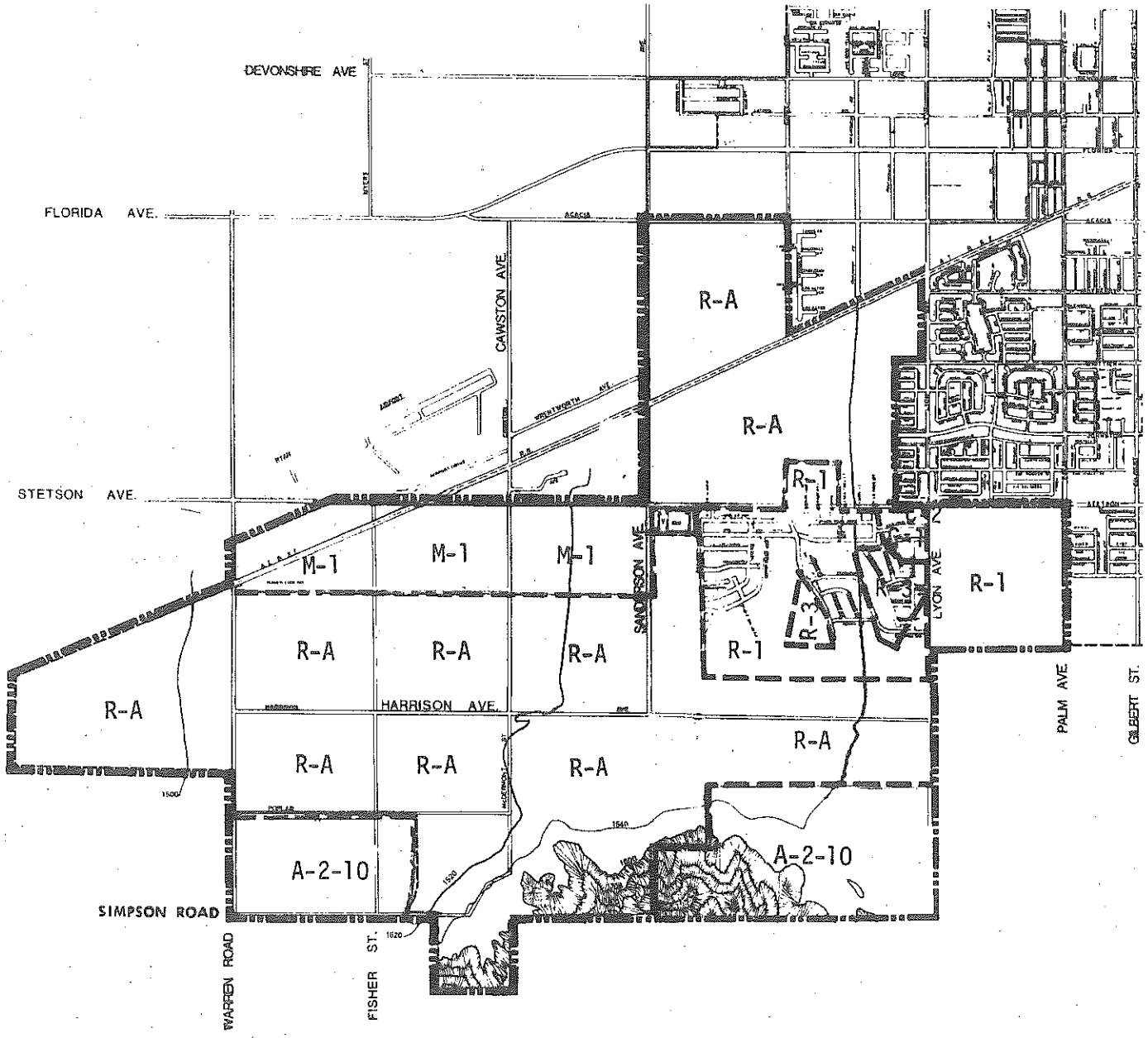
3.1.1 Zoning

The City of Hemet Zoning Ordinance indicates five zoning designations within the Southwest Area; Residential Agriculture (RA), Single-family Residential (R-1), Multiple-family Residential (R-3), General Commercial (C-2) and Limited Manufacturing (M-1). The existing zoning allows a maximum population of 7,500 people, including land designated as environmental hazard areas. Refer to Figure 5.

Approximately 148 acres south of the railroad tracks along Stetson Avenue are designated as Limited Manufacturing. The purpose of this designation is to provide manufacturing uses which are compatible with residential uses, including: 1) light industrial uses, 2) agricultural uses and 3) outdoor storage. The minimum required site area is one acre.

Two areas in the southwest and southeast corners of the Southwest Area are zoned for Heavy Agricultural uses and the extreme eastern portion is zoned for residential uses, within the County of Riverside.

Portions of the Seven Hills area are zoned for Multiple-family Residential (R-3) which allows mobile homes and apartments, and Single-family Residential (R-1). Small areas zoned for General Commercial and neighborhood commercial (C-1) are located at the southwestern corner of Stetson and Lyon Avenues. The remainder of the Southwest Area is zoned for Residential Agriculture (RA). The residential agriculture zone provides for development of large residential lots or parcels that will allow for the continuation of agricultural uses in the Southwest Area and preclude premature or untimely land development. Uses that are permitted in the Residential Agriculture Zone include: a) one-family dwellings, b) parks, playgrounds and community centers, c) additional housing for hired agricultural workers on parcels containing 10± acres, d) accessory buildings or structures, e) private recreation centers and clubs, f) churches and religious institutions, g) private schools and colleges, h) public schools, i) non-profitable libraries and museums, and j) public utility and service installations. The minimum required lot area is 20,000 square feet.



CITY OF HEMET

R-1	Single-family Residential	C-1	Neighborhood Commercial
R-3	Multiple-family Residential	C-2	General Commercial
R-A	Residential Agriculture		
M-1	Limited Manufacturing		

COUNTY OF RIVERSIDE

A-2-10 Heavy Agriculture
(10-Acre Minimum Lot Area)

NORTH

0' 3000' 6000'

Source:	Title:	
CITY OF HEMET	ZONING MAP	5

3.1.2 General Plan

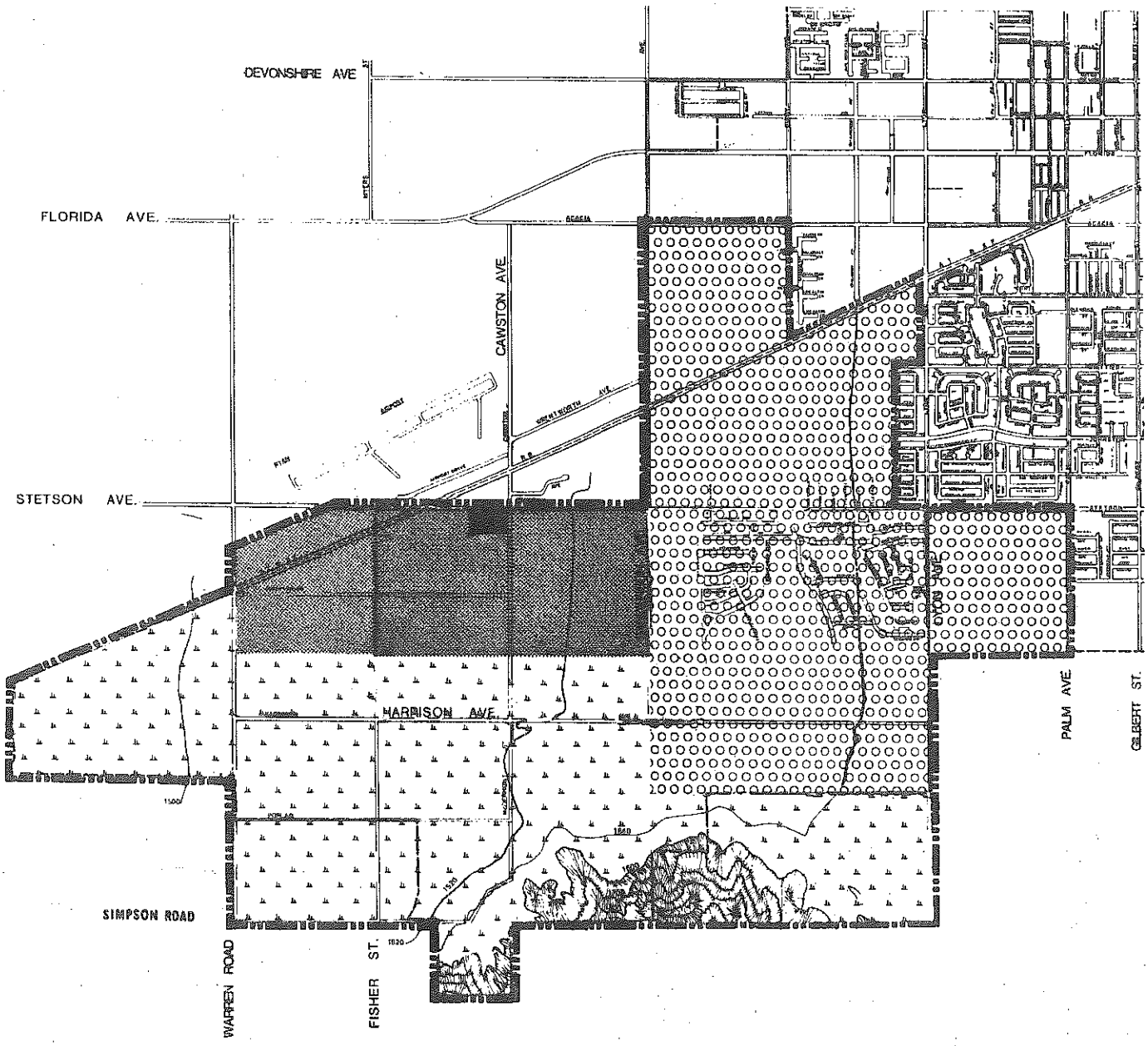
The Southwest Area is presently subject to the Hemet-San Jacinto Area General Plan adopted in 1968. It indicates the City's desire that a large portion of the Southwest Area be held as major agricultural, ranch and recreational areas to be protected from premature urban development. The remaining portions of land are indicated as commercial/industrial and urban development areas, as shown in Figure 6.

The exclusion of small lot subdivisions and other commercial and industrial uses from the area surrounding the Domenigoni Mountains is essential to sustaining the agricultural sector of the Diamond Valley area. The allowable density within the agricultural designation is one dwelling unit per 2 acre parcel, with 2 acres being the minimum lot size. The plan suggests that a larger minimum lot size may be desirable in the agricultural areas.* A special census taken in May 1977 for the City of Hemet by the State Department of Finance indicated an average of 2.23 people per household for single family detached housing, which is what would be expected on 2 acre parcels. Based on the census, the density for the Southwest Area would be 1.12 persons per acre. This is about 30% lower than a typical density of 3.5 persons per acre. The Southwest Area, if developed according to the General Plan, would reflect a more typical density of 3.5 persons/acre as a result of an expected high percentage of the retired population locating in those areas of Hemet with higher allowable densities and lower maintenance requirements. The remaining residential area designation allows for 3-7 units/acre as shown on Figure 4.

The General Plan indicates that the area around Hemet/Ryan Airport is ideally suited for industrial park use and that specific plans should be prepared for landscaped streets and on-site landscaping. Development should also be designed to control the emission of noise, odor, ground vibration, smoke, dust radioactivity and other nuisance elements.

Within the Southwest Area, 547 acres are unincorporated and within the jurisdiction of the County of Riverside. Development within the County must conform with the County's Hemet-San Jacinto Area Plan Interim Policies, and should conform with the City of Hemet Development Standards. The updated

* Hemet-San Jacinto Area General Plan, 1968.



AGRICULTURAL 1 DU/2 acres

RESIDENTIAL 3-7 DU/acre

INDUSTRIAL

COMMERCIAL

0' 3000' 6000'

NORTH

Source:	Title:	
CITY OF HEMET	GENERAL PLAN LAND USE MAP	6

Hemet-San Jacinto Area Plan is proposed for adoption by the board in February 1980. These interim policies are designed to be used with the existing plan until the adoption of the updated plan. Interim policies relevant to the project include the following:

- Development of structures shall not be allowed within a designated floodway, except as exempted in the National Flood Insurance program.
- Development allowed within the 100 year floodplain shall meet all applicable provisions of the Riverside County Subdivision Ordinance and the National Flood Insurance Program.
- Prior to adoption of the Countywide policies implementing the National Flood Insurance Program zone changes that would result in more intensive uses within the 100 year floodplain should be carefully controlled.
- Permitted uses should not significantly increase flood danger to human life and property.
- The development of agricultural land for urban uses should be discouraged unless the land is generally contiguous to existing urban areas.
- The density of proposed subdivisions should be compatible with the average density of the surrounding area.
- Soil capability and economic feasibility for agriculture should be considered in requests to convert agricultural lands to urban uses.
- Policies included in the County Hillside Development Policy shall apply.
- Development in areas of high fire risk shall incorporate adequate mitigation measures.
- Development on unstable slopes, or slopes subject to erosion and deterioration shall require adequate mitigation.

- Development shall provide for the retention of existing trees and other flora which serve to stabilize steep slopes, retain moisture, prevent erosion and enhance the natural scenic beauty, and where necessary, immediate planting has been planned in order to stabilize cut and fill slopes.
- Natural ridge lines should be protected. (see Hillside Development Policies).
- Where public sewer systems are not available, and where slopes exceed 8%, percolation tests should be submitted as supplemental information along with the filing of a land division.
- All existing C-1 zoned areas should be considered for rezoning to C-P (Restricted Commercial).
- Plot plans and rezoning for commercial uses shall be reviewed for their consistency with the policies and intent of the General Plan.
- Subdivisions and development designs which foster continuation or extension of the present pattern of strip commercial should be restricted.
- Urban development should take place only where a full range of services currently exists or where services may be sufficiently and economically extended.

3.2 Archaeology

The Hemet area is known to have archaeological significance. Remains have been found of Indians whose descendents now occupy the Soboba Indian Reservation northeast of the City. The principal Indian settlement at the time the Spanish arrived was centered near the Ramona Bowl. Settlements associated with the village spread over an area approximately three miles long and one mile wide.*

The Southwest Area lies approximately two miles from Ramona Bowl. The foothills of the Domenigoni Mountains are considered by Gerald Smith, PhD.,

* Estimate by Clarence Swift, Hemet City Historian, in Landmarks of Riverside County.

San Bernardino County Museum, Redlands, to be archaeologically sensitive. Dr. Smith recommends a thorough investigation of this zone for archaeological resources prior to approval for future development.

Two parcels within the Southwest Area have recently been surveyed for archaeological resources.* They include the 80± acre Sundberg parcel (Parcel, Figure 7) and the 1430± acre Page Ranch parcel (Parcel 2, Figure 7). There were no archaeological resources found on these parcels. Dr. Gerald Smith supported the on-site survey by David Van Horn, PhD., in that Dr. Smith did not know of any archaeologically significant areas in the vicinity of either parcel. A cemetary of historical significance and several items remaining from an old cattle ranch having some historical significance were located on the parcels.

An archaeological site (Ca-Riv-1162) is located in the eastern portion of the Southwest Area and newly discovered resources of Ca-Riv-1162 have also been found in an area within the Southwest Area. Artifacts found at these sites include: metates, pits, flakes, projectiles points, pottery sherds and manos. One isolate artifact was found in the Seven Hills Project Area. An archaeological site (Ca-Riv-863) situated at the corner of Stetson and Warren Roads, near the Southwest Area boundary, consisted of one isolated metate fragment. Figure 7 illustrates the location recommended that the area should be checked for petroglyphs and pictographs.**

3.3 Vegetation and Wildlife

There are several native plant communities within the Hemet Area. The groupings and some of the more common plants are:***

Riparian (in river bottoms and some canyons where there is water)--cottonwoods, willows and sycamores.

Valley Grassland (range-type plants)--brome grasses and filaree.

Southern Oak Woodland (in the valley and ascending to 5,000 feet at Vandeventer Flat in the San Jacinto Mountains)--Encina (coastline oak), sugar bush, and squaw bush.

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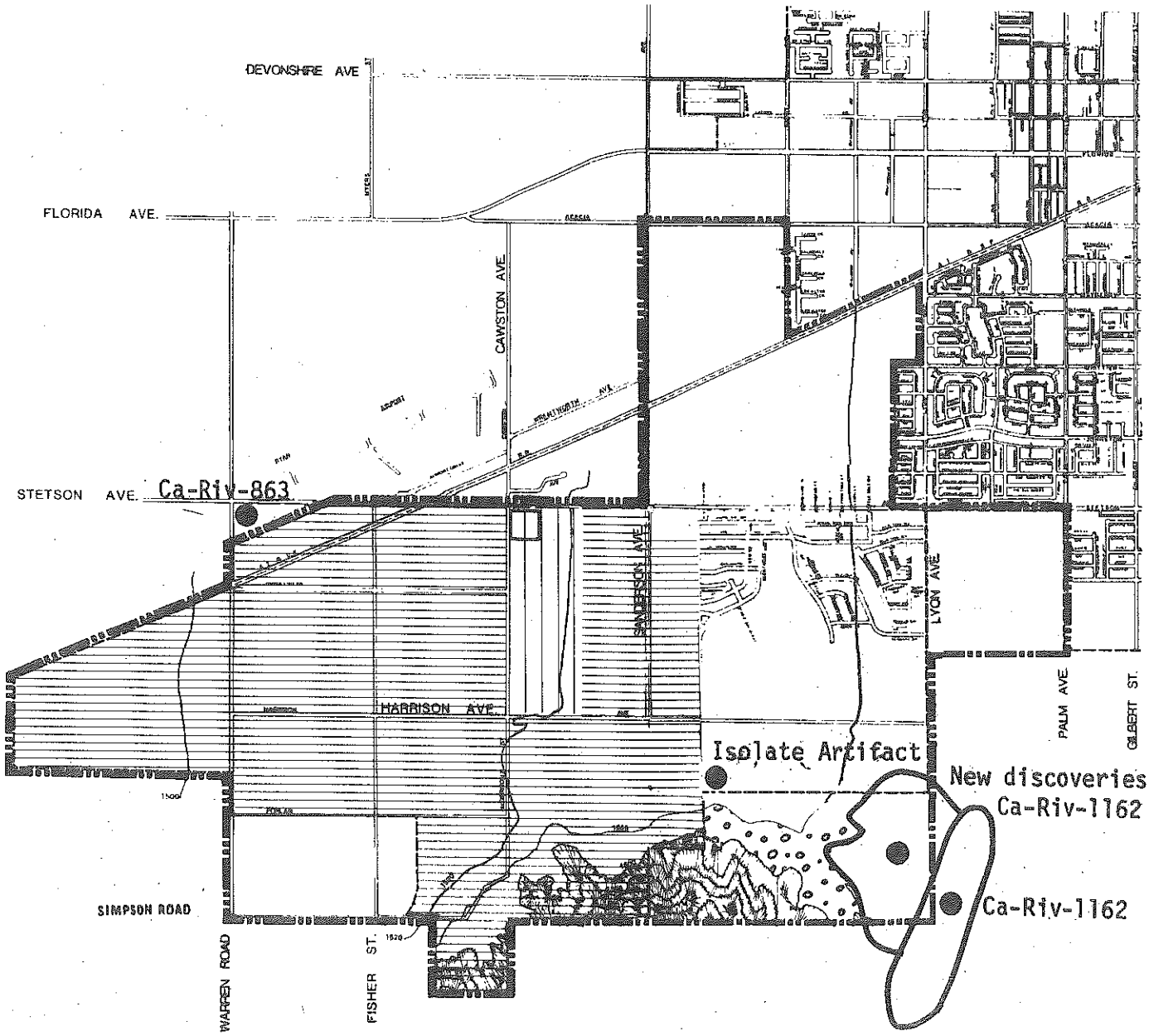
* Surveys by David Van Horn, PhD., archaeological consultant for Ultrasystems.
** San Bernardino County Museum Archaeological Site Record From #844.
*** Open Space and Conservation Element, City of Hemet.



ARCHEOLOGICAL SITE

HISTORICAL SITE (CEMETERY)

ARCHEOLOGICALLY SENSITIVE AREA

PARCEL 1 - SUNDBERG

PARCEL 2 - PAGE RANCH

0' 3000' 6000'

NORTH

Source:	Title:	
ULTRASYSTEMS, INC.	ARCHEOLOGICALLY SENSITIVE AREA	7

Coastal Sage Scrub (mostly below 2,500 to 3,000 feet in elevation)--California sagebrush, white sage, lemonadeberry, and encelia.

Chaparral (highly susceptible to fire, mostly over 3,000 feet in elevation)--Chamise (greasewood), Christmasberry, buckthorn, scrub oak, Yucca Whipplei, California lilac, and manzanita.

There are no rare plants in the planning area that need special protection; however, the riparian plants are not plentiful and they are valuable as wildlife habitats, as scenery and as shade.*

The majority of land in the Southwest Area is under cultivation. Agricultural acreage and crops in the area include: vegetables, grains, fodder and pasture.

Wildlife

As the valley areas have been taken over by agriculture and urban uses, the wildlife has been pushed back into the hilly areas and canyons. The foothills and canyons of the Domenigoni Mountains are the only remaining significant widlife habitats within the Southwest Area.

Types of plant communities in an area to a great extent reflect the types of wildlife found in an area. The major wildlife species in the Southwest Area include: jack rabbits, brush rabbits, cottontails, song birds, quail, doves and kangaroo rats.

It should be noted that the Stephens kangaroo rat (Dipodomus stephensi) which apparently lives only in the San Jacinto Valley is on the State's list of rare and endangered species. The Department of Biology at California State Polytechnic University at Pomona has been studying this rat under a contract with the State Department of Fish and Game. Thus far, Bautista Canyon is the only place in the Hemet area that has been determined to be a significant habitat of the Stephens kangaroo rat. A specimen was also identified in Diamond Valley, but the habitat there is regarded as very poor.

In addition to the small animals and birds which live in the Hemet area, there are a number of "raptors" (owls, eagles and hawks) which

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* Cooperative Extension, University of California Riverside.

are dependent on these small creatures for food. Larger animals include deer, coyotes, and mountain lions.

Several amphibians and reptiles in the area are "protected," (i.e., bag limits) in California as of March 1, 1973. These are the Coast Horned Lizard, Banded Gecko, Granite Night Lizard, Orange-throated Whiptail, and Rosy Boa. The California Legless Lizard and Desert Horned Lizard may also be in the area. In 1921 the later was found there, although it ordinarily resides only on the eastern side of the mountains. More common reptiles, such as the rattlesnake, also inhabit the area.

3.4 Climate and Air Quality

Climate

The climate in the San Jacinto Valley which includes the Southwest Area is very mild, reaching an annual average temperature of 62°. Average rainfall is 10.5 inches per year but in the San Jacinto River Valley one year in twenty can be expected to produce less than five inches of precipitation and the wettest year in 20 can produce 17 to 20 inches or more. The Southwest Area has climatic conditions characteristic of the South Coast Air Basin. Light average wind speeds common to the Basin prevent adequate horizontal dispersal of air contaminants, and therefore promote air stagnation. Inversion of atmospheric temperatures occurs in this area and prevents adequate dilution and vertical dispersion of pollutants. The surrounding mountains also prevent dispersion. The abundance of sunshine in the area contributes ultraviolet radiation which is necessary in the photochemical process producing oxidants or smog.

Air Quality

Air quality is dependent upon the source location, the amount and type of pollutants emitted and the subsequent atmospheric dispersion of the pollutants. Schematically, air quality may be described as follows:

dispersion

emissions + meteorology + air chemistry → air quality

SOURCES → emissions; air quality → RECEPTORS

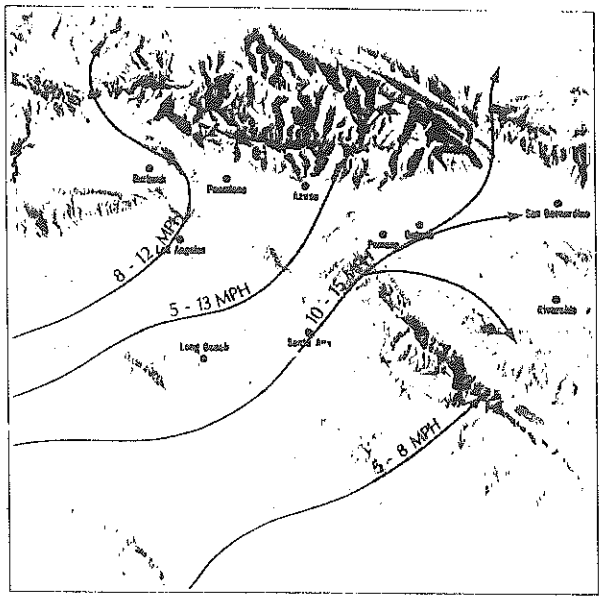
There are several distinctions made in the identification of air pollutants. One distinction is between primary pollutants and secondary air pollutants. Primary pollutants are those pollutants that are emitted directly from sources. Carbon monoxide, hydrocarbons (organic gases), oxides of nitrogen, sulfur dioxide, and particulate matters are primary pollutants. Secondary pollutants are those pollutants formed by chemical and photochemical reactions in the atmosphere. Photochemical oxidants and nitrogen dioxide (NO_2) are the principal secondary pollutants.

Primary and secondary air pollutants are transported and dispersed by meteorological processes. Meteorological factors important to the transport of air pollution within the South Coast Air Basin in which the proposed project site is located are wind speed and direction, and the presence of atmospheric temperature inversions. With very light wind speeds (average of 5.7 miles per hour) the basin atmosphere has a limited capability to disperse air pollutants horizontally. The dominant daily wind pattern is a daytime sea breeze and nighttime land breeze as shown in Figure 8.

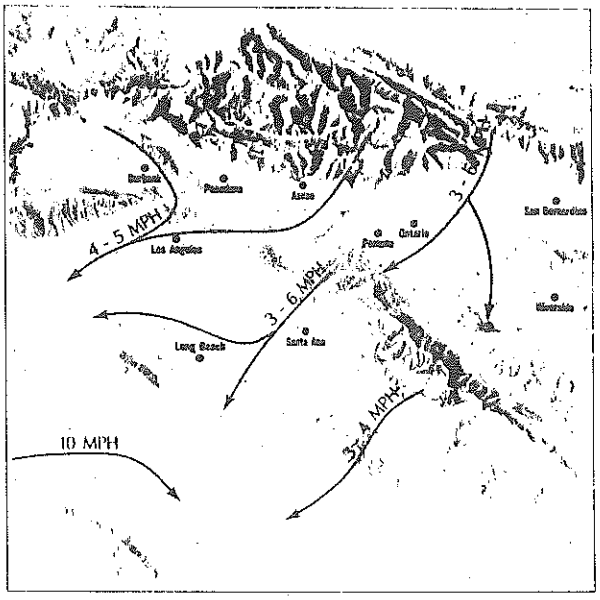
Levels at which air pollution produces adverse health or welfare effects on receptors are reflected in the ambient air quality standards.

The Federal and State air quality standards are presented in Table 2. The attainment of the Federal primary air quality standards is required by December 31, 1982*, or with EPA approval may be extended for carbon monoxide and oxidant to December 31, 1987. Federal secondary standards at present have no specific attainment date. California State air quality standards were originally set as air quality goals with no specific date for achievement. However, under the State Lewis Air Quality Management Act, an air quality management plan for the South Coast Air Basin, aimed at meeting expeditiously both the State and Federal air quality standards must be submitted to the California Legislature by January 31, 1979.

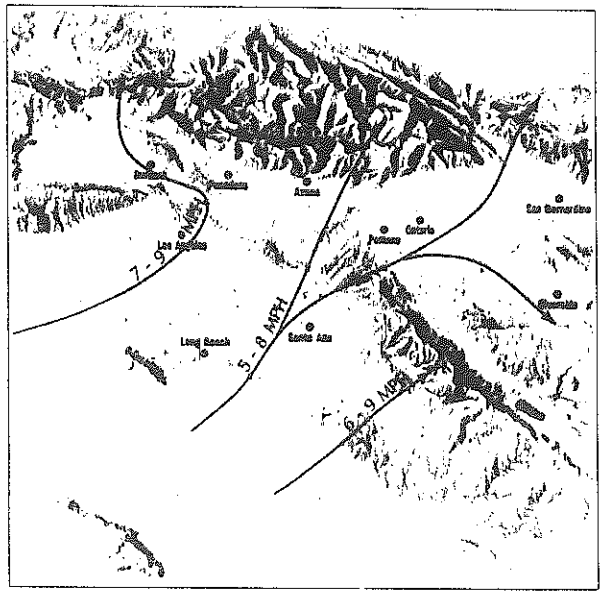
* Clean Air Act Amendments of 1977.



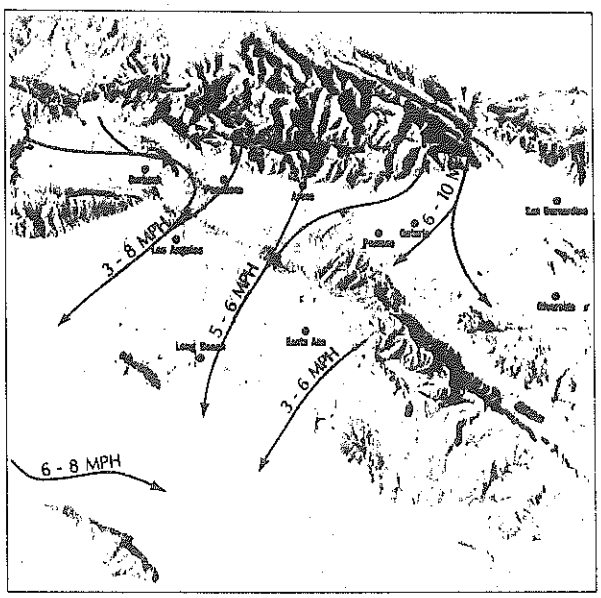
TYPICAL SUMMER DAYTIME OCEAN WINDS
(Noon to 7:00 PM)



TYPICAL SUMMER NIGHT DRAINAGE WINDS
(Midnight to 5:00 AM)



TYPICAL WINTER DAYTIME OCEAN WINDS
(Noon to 5:00 PM)



TYPICAL WINTER NIGHT DRAINAGE WINDS
(Midnight to 7:00 AM)

These maps show dominant summer and winter wind patterns in the Los Angeles Basin. For the period of the day shown, the net transport of air onshore usually is greater in the summer, while the net offshore transport as a rule is greater during the winter. Whether there is air movement or air stagnation during the morning and evening hours, before these dominant air flow patterns take effect, is one of the critical factors in determining the smog situation on any given day.

	Source: SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	**Title:** TYPICAL WIND PATTERNS IN GENERAL VICINITY OF PROJECT SITE	**8**

TABLE 2

FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	National Standards	
			Primary[1]	Secondary[2]
Oxidant (Ozone)	1 hour	0.10 ppm	0.08 ppm	Same as Primary Standards
Carbon Monoxide	12 hour	10 ppm	-	
	8 hour		9 ppm	Same as Primary Standards
	1 hour	40 ppm	35 ppm	
Nitrogen Dioxide	Annual Average	-	0.05 ppm	Same as Primary Standards
	1 hour	0.25 ppm	-	
Sulfur Dioxide	Annual Average	-	0.03 ppm	-
	24 hour	0.05 ppm	0.14 ppm	-
	3 hour	-	-	0.5 ppm
	1 hour	0.5 ppm	-	-
Suspended Particulate Matter	Annual Geometric Mean	60 ug/m^3	75 ug/m^3	60 ug/m^3
	24 hour	100 ug/m^3	260 ug/m^3	150 ug/m^3
Sulfates	24 hour	25 ug/m^3	-	-
Lead	30 day average	1.5 ug/m^3	-	-
Hydrogen Sulfide	1 hour	0.03 ppm	-	-
Hydrocarbons (Corrected for Methane)	3 hour (6-9 a.m.)	-	(0.24 ppm)	Same as Primary Standards
Ethylene	8 hour	0.1 ppm	-	-
	1 hour	0.5 ppm		
Visibility Reducing Particles	1 observation	In sufficient amount to reduce the prevailing visibility to less than 10 miles when the relative humidity is less than 70%		

ppm = Parts per million ug/m^3 = Micrograms/cubic meter

[1] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[2] National Secondary Standards: The levels of air quality necessary to protect the the public welfare from any known or anticipated adverse effects of a pollutant.

The Southwest Area is characterized by "good air quality." However, both Federal and State Standards for ozone were exceeded on several days during 1976. The California state standard of .10 ppm for one hour was exceeded on 68 days, and the Federal standard of .08 ppm for one hour was exceeded on 87 days during 1976. The maximum one hour concentration of ozone which occurred was 0.19 ppm.

The Hemet air quality monitoring site provides data only with regard to concentration of ozone and carbon monoxide. The maximum carbon monoxide concentration measured during 1976 was 8 ppm which is below Federal and State standards. There are no other air quality monitoring sites which are located in areas close enough that data could be extrapolated to describe air quality for other pollutants in Hemet. The air quality monitoring station in Perris is the closest station to Hemet, but provides data only with regard to carbon monoxide concentrations, and ozone concentrations.

It should be noted that the problem of oxidant or ozone concentrations, the only documented air pollution problem in Hemet, is due to pollutants generated from outside of the Hemet area. The prevailing winds in Hemet are from the southwest and protect Hemet from the higher air pollutant concentrations which are characteristic in other areas in the South Coast Air Basin, including northeastern Riverside County.

3.5 Geology and Soils

The geologic setting of the Southwest Area is characterized by a broad, relatively flat alluvial valley of intermediate thickness from 200' to 2000'. The Domenigoni Mountains protrude abruptly from the sandy alluvium. They are composed predominently of granite with some metamorphic rocks. The most significant seismic hazard to the Southwest Area are the several active traces of the San Jacinto Fault Zone. The Casa Loma and Bautista Faults, between Mayberry and Washington Avenue, are located approximately 2 miles from the Southwest Area and would be most likely to generate ground shaking and slippage.

As Figure 9 indicates, the Southwest Area lies primarily in Ground Shaking Zone IV which is based on soil and/or rock conditions designated by A (Bedrock), B (Alluvium of intermediate thickness, 200'-2000'), C (thick

EXPLANATION

FAULTING

Active or potentially active fault; dashed where approximate; dotted where buried.

Boundary of Special Studies Zone (Alquist-Priolo Act) as defined by State Geologist. Note: These boundaries and the faults within are included for informational purposes only. Precise location should be taken from the maps issued by the State.

GSR 9-18-74

Location of trench excavated to delineate fault showing initials of author and date of report. Findings annotated as follows:

- FC - Fault confirmed
- NF - No fault encountered
- FM - Fault location modified
- FS - New fault suggested

SECONDARY HAZARDS

LIQUEFACTION:

200 / 1384

Depth to (top) and elevation of (bottom) groundwater during 1971-72 season.

SLOPE INSTABILITY:

Ground shaking zones modified as follows to indicate degree of slope instability:

- 0 - Nil
- 1 - Very low
- 2 - Low
- 3 - Moderate
- 4 - High (probable landslide)

GROUNDSHAKING

II \ I

Boundary of ground shaking zone based on distance to causitive fault.

(A) B

Boundary of ground shaking zone based on soil and/or rock conditions.

- A Bedrock (weathered)
- B Alluvium of intermediate thickness (200-2000')
- C Thick alluvium and soft sediments (2000'+)
- D Thin Pleistocene alluvium (10-200')
- E Thin Recent alluvium (10-200')

2 / 25 — 1700 1/s / 3300 1/s

Location of near-surface, refraction velocity survey run for this study showing velocities and depths encountered.

3 / 50 / 162 — 1250 1/s / 2100 1/s / 6800 1/s

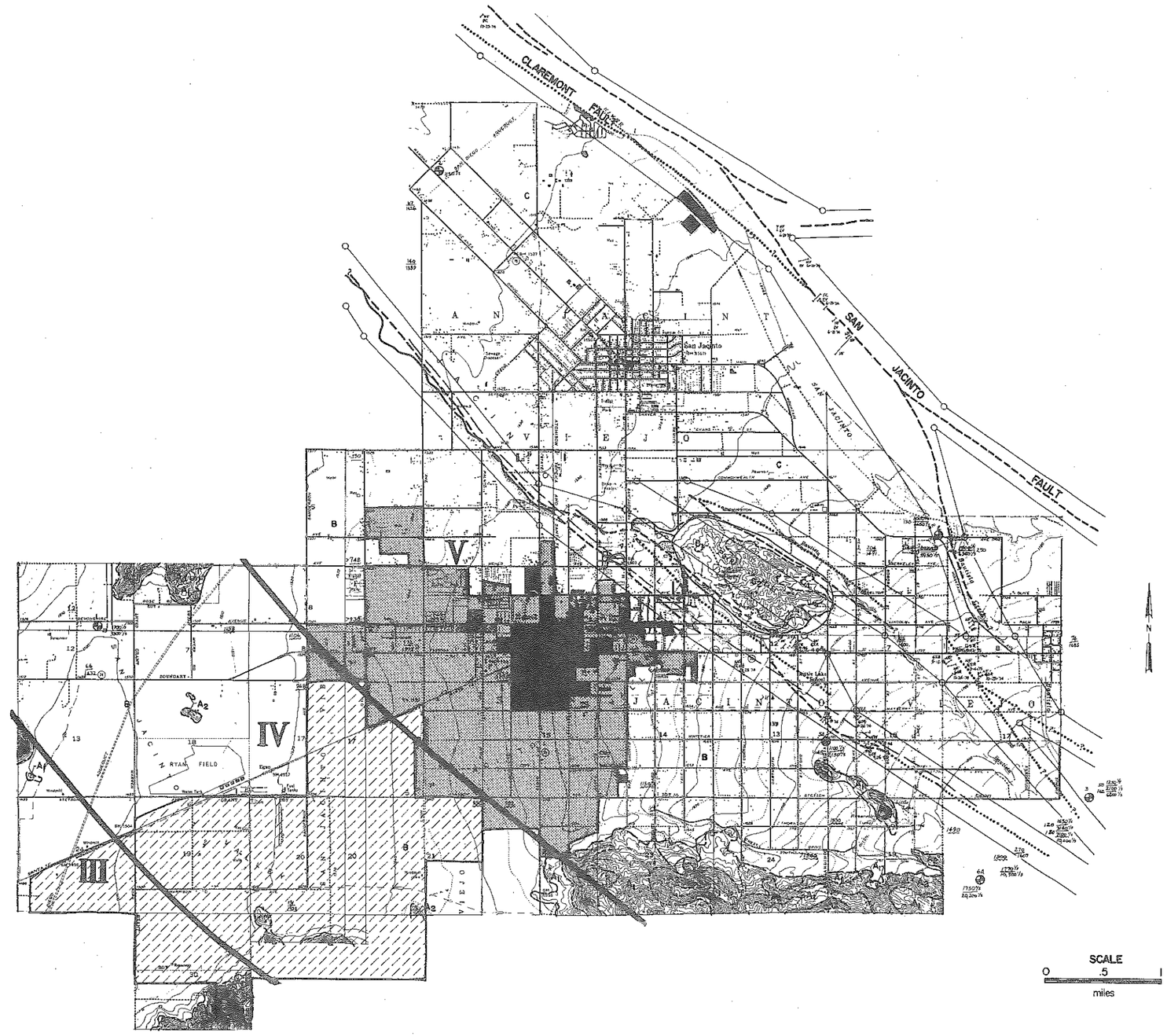
Location of refraction velocity survey showing velocities and depths as encountered by others.

968

Depth to bedrock as determined by others.

SOUTHWEST AREA--PROJECT AREA

CITY OF HEMET



Source:
SEISMIC SAFETY and PUBLIC SAFETY GENERAL PLAN ELEMENTS, CITY OF HEMET
Envicom Corporation

Title:
SEISMIC HAZARDS MAP
Hemet-San Jacinto Area

9

alluvium and soft sediments 2000+'), D (thin Pleistocene alluvium 10-200') and E (thin recent alluvium 10-200'). The Southwest Area is primarily designated as "B" alluvium of intermediate thickness, except for hillside areas which are designated as "A" bedrock (weathered).

The Land Use/Matrix for the City of Hemet Seismic Safety Element restricts construction of Emergency Facilities (such as hospitals, etc.) and Critical Facilities (such as schools) from most of the Southwest Area. The extreme southwestern portion of the project area is designated as Zone III-B which is "generally unsuitable" for construction of Emergency Facilities and Critical Facilities. This designation does not preclude these uses if no other suitable sites are available, provided that all potential hazards can be mitigated. Emergency Facilities and Critical Facilities are listed in Figure 10. Normal Facilities of Category 1 (such as heavy industrial and high-density) are considered "generally unsuitable", however, Normal Facilities of Category 2 (such as light industrial and low-density) are "provisionally suitable". Uses constituting Normal Facilities are listed in Figure 10.

The secondary hazard of ground subsidence appears to be a potential problems to the Southwest Area. Two accounts, as related in the Seismic Safety Element, have been recorded: The first in 1899 relates to an area 10 miles west of San Jacinto and the second, in 1967 relates to an area ½ mile long north of the community of Lakeview.

The southern portion of the Southwest Area bordering the Domenigoni Mountains has areas of moderate susceptibility to landslide and slope instability, which is designated on the Seismic Hazards Map (Figure 7) with a Number 3. Slopes analysis indicates a 30%+ slope in areas of the Domenigoni Mountains.

Soil Capability with respect to open-space preservation will be discussed in the Open-Space Conservation Section of this report.

3.6 Hydrology

The Hemet area watershed is approximately 12.3 square miles in area. The average slope of the watershed is approximately 1 percent from east to west. The general storm drainage pattern is from the east and south-

	BUILDING TYPE/LAND USE	SEISMIC, SECONDARY SEISMIC, AND FLOOD HAZARDS ZONES (SHOWN ON PLATES I AND II.)																																
		1/ HMZ	2/ IA	IB	IC	ID	IE	IIA	IIB	IIC	IID	IIE	IIIA	IIIB	IIIC	IIID	IIIE	IVA	IVB	IVC	IVD	IVE	VA	VB	VC	VD	VE	3/ H+	H-	M	L	N	4/ LL	L	5/ 100F
EMERGENCY FACILITIES	Hospitals, Fire Stations, Police Stations, Civil Defense Headquarters, Lifeline Systems for Gas, Electric, Water, Telephone, Emergency Broadcast Systems, Ambulance Services, Power Plants (Nuclear, Fossil Fuel), Dams, Reservoirs.	⊗											⊘	⊘				⊘	⊗				⊗	⊗	⊘				⊘	○	○	●			⊗
CRITICAL FACILITIES	Schools, Theaters, Auditoriums, Utility Substations, Sewage Treatment Plants, Waterworks, Local Gas and Electric Lines, Major Highways, Bridges, Tunnels, Aqueducts, Pipe Lines, Public Service Facilities, Public Assembly-Capacity of 100 or more.	⊗											⊘	⊘				⊘	⊗				⊗	⊗	⊘				⊘	○	●	●			⊘
NORMAL FACILITIES	Category 1 Heavy Industrial, Office Buildings, Commercial Centers, Hotels and Motels, Banks and Financial Establishments, High Density Residential, Service Stations, Healthcare Clinics.	⊘											○	⊘				⊘	⊘				⊘	⊘	○				○	○	●	●			○
	Category 2 Light Industrial, Low Density Residential, Warehousing and Storage, Agriculture, Parks.	○											●	○				○	○				○	○	●				○	○	●	●			○

Explanation

● Generally Suitable ○ Provisionally Suitable ⊘ Generally Unsuitable ⊗ Restricted

Notes: This Chart is for General Land Use Planning only. Suitability for specific uses on a particular site must be confirmed by further investigation. An area evaluated as generally unsuitable for a particular use does not necessarily preclude the use if no other suitable alternative sites are available, provided that all potential hazards can be mitigated. In the case of restricted areas, mitigation is extremely difficult and in some instances, impossible.

1/ Hazard Management Zone 2/ Ground shaking zones 3/ Landslide risk zones 4/ Liquefaction potential zones 5/ 100-year flood zone

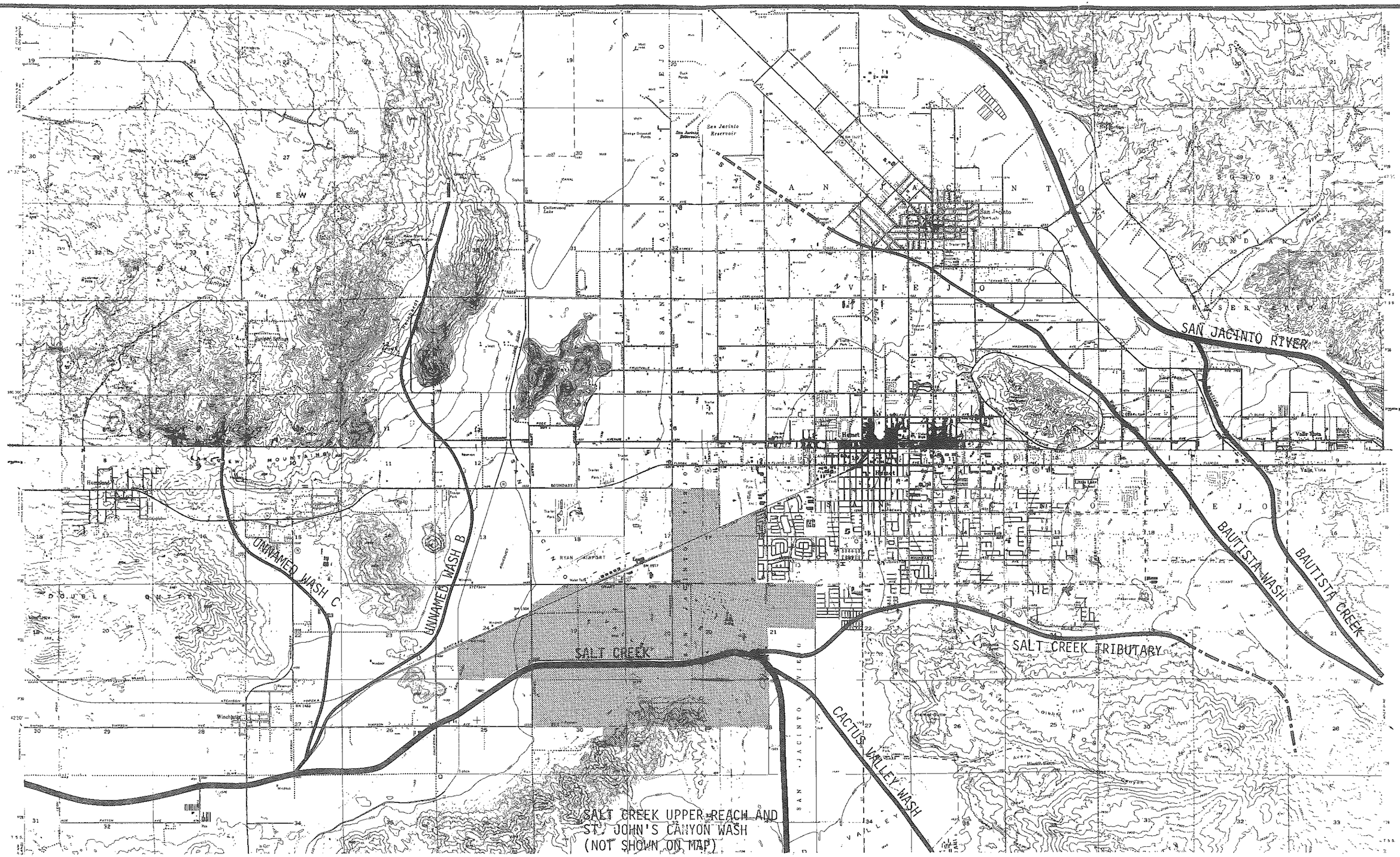
Source: ULTRASYSTEMS, INC.

Title: LAND USE/RISK MATRIX

10

east toward the west. Runoff from the east is intercepted by Bautista Creek and Bautista Wash and flows northwesterly into the San Jacinto River. Runoff from the Santa Rosa Hills south and east of the City is collected by the unnamed tributary of Salt Creek (Wash "A"), the Cactus Valley Wash and the St. Johns Canyon Wash and then flows northwesterly into Salt Creek continuing in a westerly flow across the southern portion of the Southwest Area. See Figure 11. Salt Creek, which drains about 130 square miles of area, is a tributary of the San Jacinto River. The Salt Creek watershed is known to have suffered damaging floods during 1884, 1891, 1916, 1927, 1937, 1938, 1952, and 1969. The most significant factor aggravating the flooding of Salt Creek in the vicinity of Hemet is the lack of adequate channelization. Constant cultivation of the land in the Salt Creek flood plain has virtually elimiated the natural watercourse. Figure 12 indicates the floodway and floodway fringe for a 100-year or intermediate regional flood based on the study completed by the U.S. Department of Housing and Urban Development, Federal Insurance Administration. As can be seen in Figure 12, approximately 60 percent of the Southwest Area is within a 100-year flood plain.

Present flood protection facilities for Hemet were originally designed as a 100-year capacity primary drainage system. This sytem includes Hemet's Storm Channel and the downstream reaches of Acacia Street Drain, Whittier Channel, and Stetson Avenue Channel, as shown in Figure 13. All of these channels collect runoff generated in the Hemet Watershed between Florida and Stetson Avenues, with the Hemet Storm Channel acting as the main conveyance structure that transmits the flow to Salt Creek. These flood protection facilities have proven to be inadequate as recently as 1969. A report on "Master Drainage Plan for the Hemet Area", revised in 1977 by the Riverside County Flood Control and Water Conservation District, has proposed a revision to the Master Drainage Plan which includes 1) interim channel improvements in the Salt Creek Floodplain along with some upgrading of the Hemet Channel and 2) ultimate storm drain improvements in the City of Hemet. The inadequacy of the existing system was indicated by the Flood Control District to be due primarily to rapid development in the Hemet area. Peak discharges occurring during a 100-year storm from the Stetson Avenue Channel at the Hemet Storm Channel will reach 1,100 cfs and will reach 9,200 cfs from Salt Creek at Lyon Avenue. These channels are not capable of handling these peak discharges and the resultant flooding will occur in over 90% of the Southwest Area.



VERIFIED FLOW DIRECTION

QUESTIONABLE FLOW DIRECTION

STUDY AREA

Source: ULTRASYSTEMS, INC.

Title: STORM DRAINAGE MAP

11

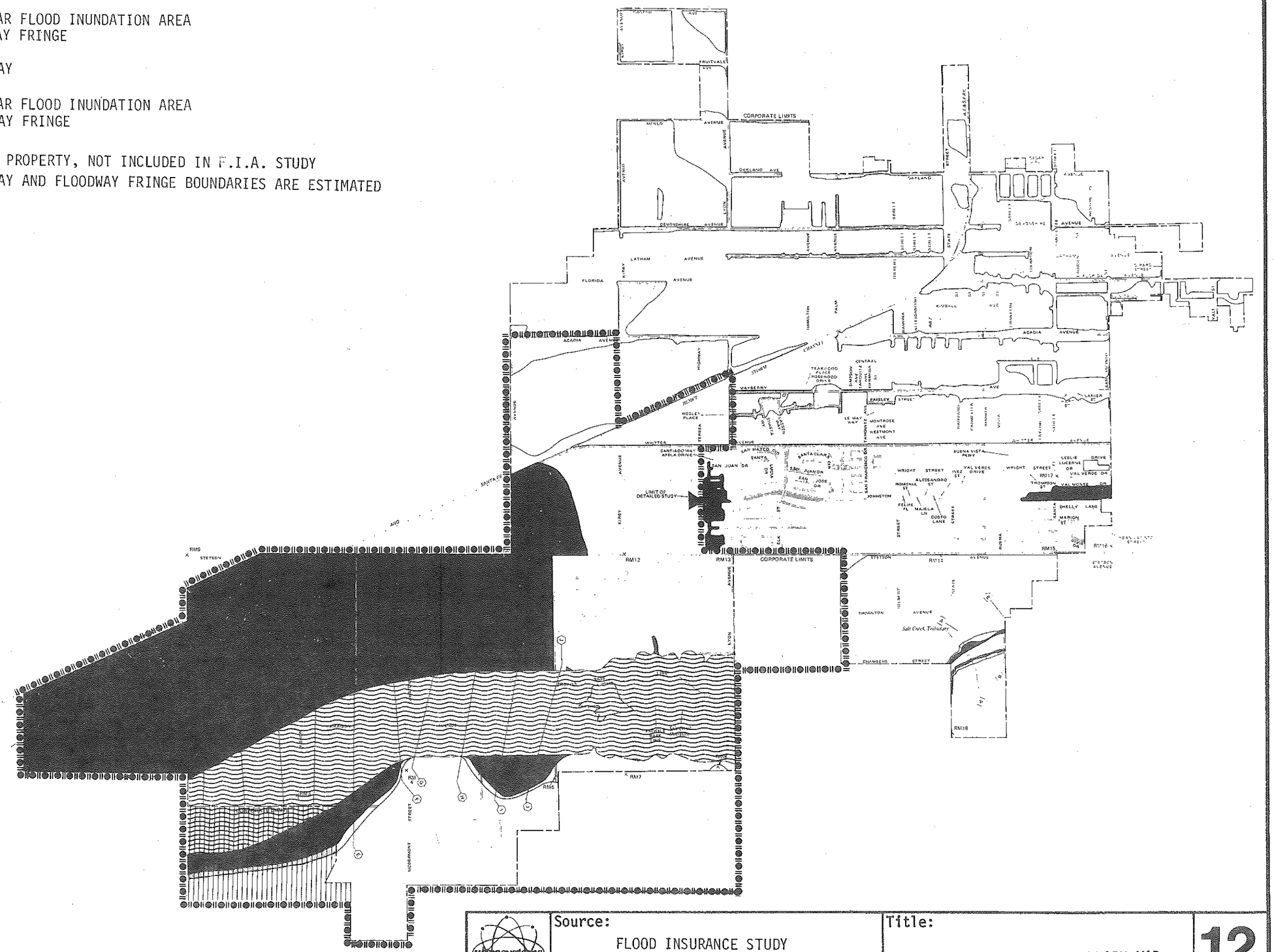
STUDY AREA

100-YEAR FLOOD INUNDATION AREA
FLOODWAY FRINGE

FLOODWAY

100-YEAR FLOOD INUNDATION AREA
FLOODWAY FRINGE

COUNTY PROPERTY, NOT INCLUDED IN F.I.A. STUDY
FLOODWAY AND FLOODWAY FRINGE BOUNDARIES ARE ESTIMATED



SCALE

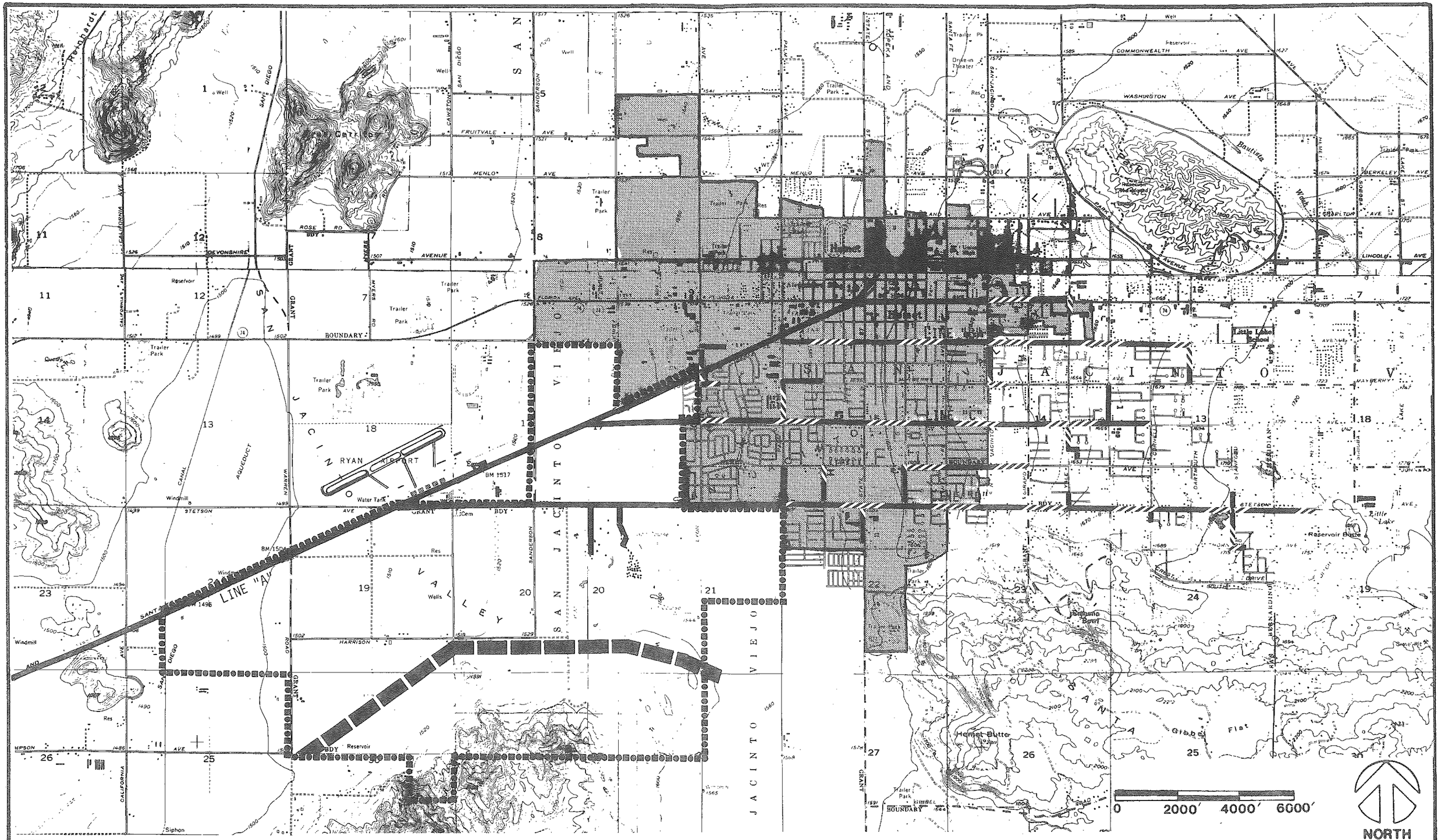
0 1 mile

NORTH

Source:
FLOOD INSURANCE STUDY
U.S. DEPARTMENT OF H.U.D. F.I.A.

Title:
FLOODWAY AND FLOOD PLAIN MAP

12



CITY OF HEMET STUDY AREA

EXISTING STORM DRAINS

PROPOSED STORM DRAINS

ULTIMATE FLOOD CHANNEL

Source:

ALDERMAN SWIFT & LEWIS
CONSULTING ENGINEERS

Title:

HEMET AREA DRAINAGE AND
SALT CREEK CHANNEL

13

3.7 Noise

Noise, which only a few years ago was considered to be an essential by-product of technological progress, is now regarded as a major form of environmental pollution and a significant public health hazard. As a result, almost every department of the Federal government is responsible for some aspect of noise control or evaluation, many state governments have passed noise related legislation and established noise control responsibility in state agencies, and especially in the past two years or so, there has been a proliforation of noise control ordinances and regulations by local governmental bodies. The question of community noise has, therefore, become an important consideration in urban planning, in construction practices and public administration.

The Southwest Area covers approximately 3,241 acres, of which the majority is in agricultural use. At the present time there are an insignificant number of "noise sensitive" land uses in the planning area (a limited number of residential uses are associated with farming properties). Currently, the noise environment in the Southwest Area is due to the following noise sources: Aircraft operations at Hemet-Ryan Airport; automobile and truck traffic along Acacia, Sanderson, Stetson, Harrison, and Warren; occasional train movements along the A.T. & S.F. railroad branch line and intermittent farming activities.

Local airport operations at Hemet-Ryan Airport, which include general aviation aircraft, glidertow aircraft, and fire bomber aircraft, is the primary source of noise in the northwest section of the study area. To define the noise environment around the airport, a computer airport noise simulation model was used. The results of the computer analysis were calculated as a set of equal contour lines and are illustrated in Figure 14*. During the fire sensitive months of the year, Hemet-Ryan Airport is used extensively as a base for fire bombing operations in the Southern California area. It is during these operations that the noise environment significantly increases due to fire bombing aircraft related noise events. It is important to note that the contour levels illustrated in Figure 14 have been adjusted to account for these operations.

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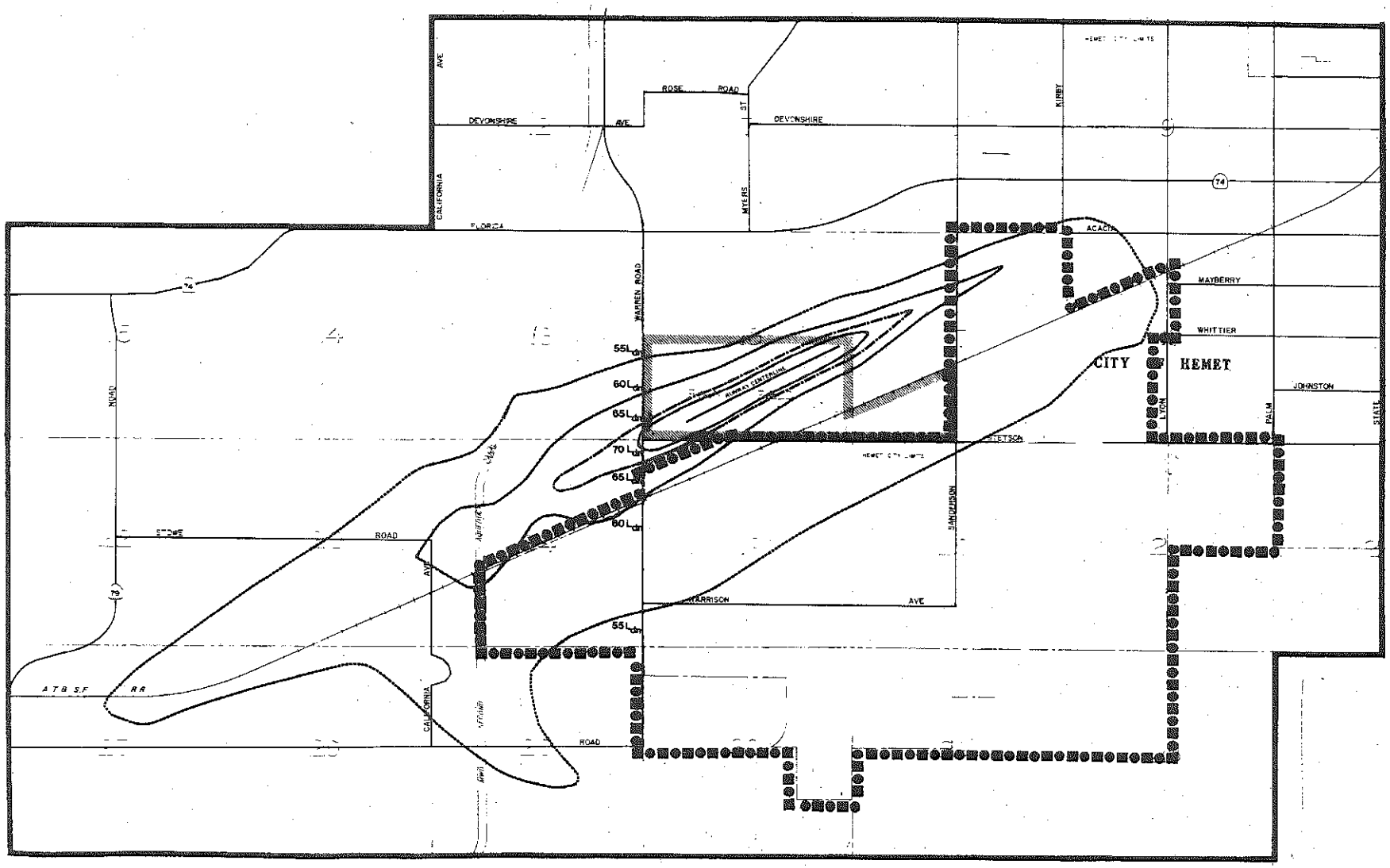
* Refer to Appendix A for an explanation of community noise exposure levels and the background report for the Hemet-Ryan Airport noise contours.



STUDY AREA BOUNDARY

N

SCALE IN FEET

0 1,000'

ultrasystems	Source: ULTRASYSTEMS, INC.	Title: HEMET/RYAN AIRPORT NOISE CONTOUR MAP

14

At the present time, the contribution of traffic to the overall noise environment is relatively small due to existing low volumes of traffic. Noise levels are highest in the immediate vicinity of roadway alignments, specifically during truck pass-bys.

At the present time, railroad operations along the A.T. & S.F. railroad branch line are limited to about 2 per day.* Train movements occur normally between the hours of noon and 10:00 p.m. Although noise generated by railroad operations is significant in magnitude when in close proximity to a train pass-by, the overall contribution to the sound environment on a daily basis is insignificant.

The cultivation of crops on agricultural properties within the Southwest Area requires the use of noise producing farm equipment. Farming activities and related equipment are in use at various time periods during the seasons and normally will occur at random locations within the Southwest Area at any given time. Farming activities normally take place during the daytime hours. However, where alfalfa is cultivated there is normally a need to harvest and bail the crop during the nighttime hours.

At the present time, the Southwest Area does not create a noise impact on the City of Hemet. However, agricultural related farm equipment may occasionally impact residents located near the boundary of the Southwest Area.

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* Atchison, Topeka & Santa Fe Railroad, November, 1978.

3.8 Traffic and Circulation

The existing and planned roadway system that would provide traffic service to the Southwest Hemet study area is shown in Figure 15. The Circulation Element of the Riverside County General Plan, and the Master Plan of Highways for the Hemet-San Jacinto General Plan area are shown in Figures 16 and 17 respectively. Typical roadway cross-sections for the respective master plan highway designations are presented in Figure 18. Regional and local access to the southwest Hemet study area is, in general, very good. There are no apparent traffic problems in the southwest area at the present time which is due in part to the undeveloped nature of the property. However existing developments in the vicinity of the southwest Hemet study area have set a precident for not continuing the arterial system as specified in the Hemet-San Jacinto General Plan and the Riverside County General Plan.

As illustrated in Figure 15, the primary traffic service to the Southwest Area would be provided by Sanderson Avenue (in the north-south direction) and Stetson Avenue (in the east-west direction). Warren Road would provide additional north-south traffic access to the western portion of the study area while Lyon Avenue would provide an additional north-south traffic facility to development in the eastern and northeastern portions of the southwest study area. Acacia Avenue and Florida Avenue would provide additional east-west travel routes northerly of Stetson Avenue while Harrison Avenue provides the only additional master planned east-west route south of Stetson Avenue. Kirby Avenue (between its existing southern terminus and Stetson Avenue), Fischer Street, Cawston Avenue, and Simpson Road complete the current master plan circulation system for the southwest area. However, they are currently undeveloped within the study area boundaries.

Sanderson Avenue is classified on the Hemet-San Jacinto General Plan as a master plan major highway* thorugh the limits of the study area (see Figure 16). The Circulation Element of the Riverside County General Plan also

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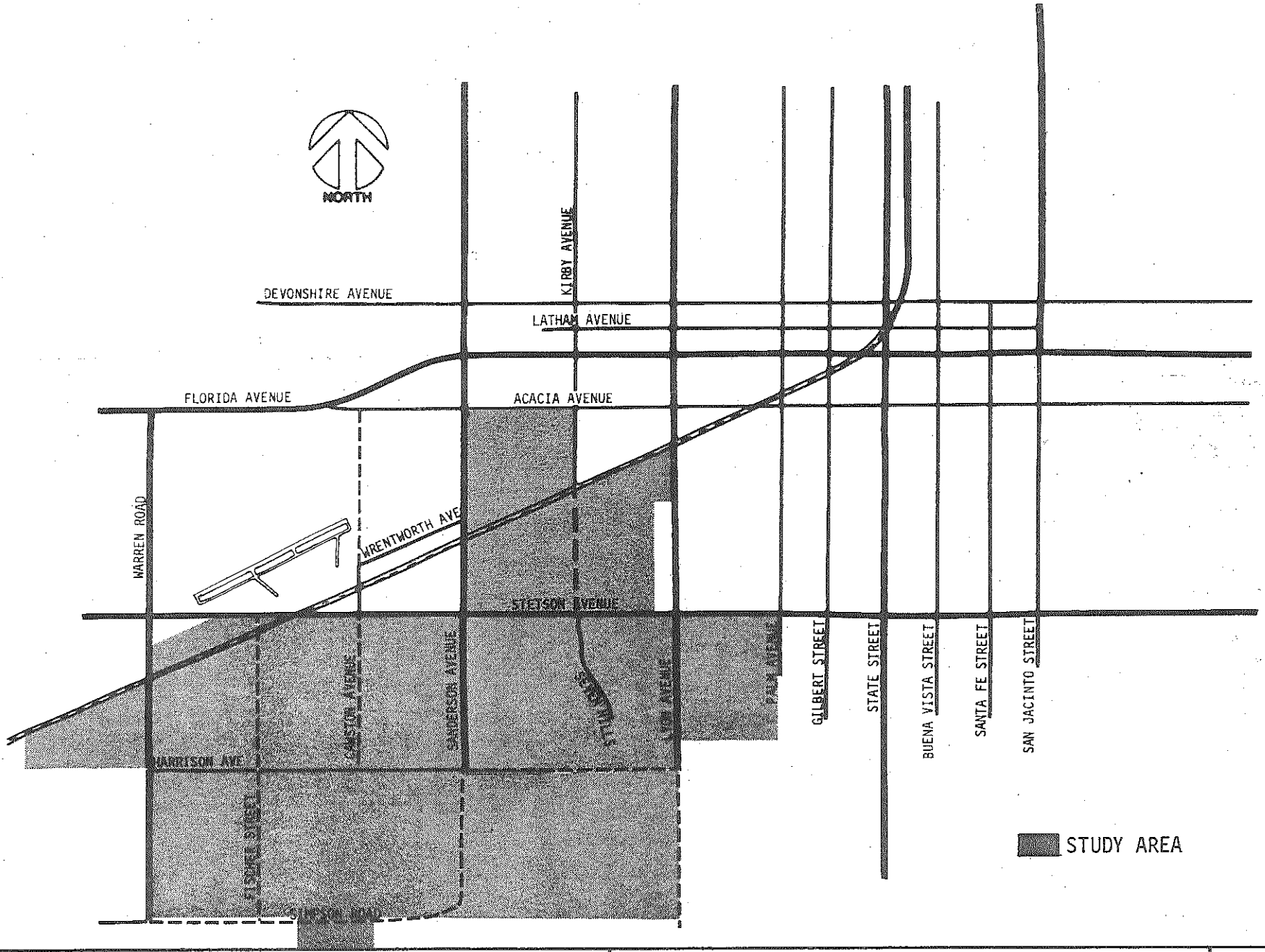
*This designates a 76 foot wide roadway within a 100 foot right-of-way width.



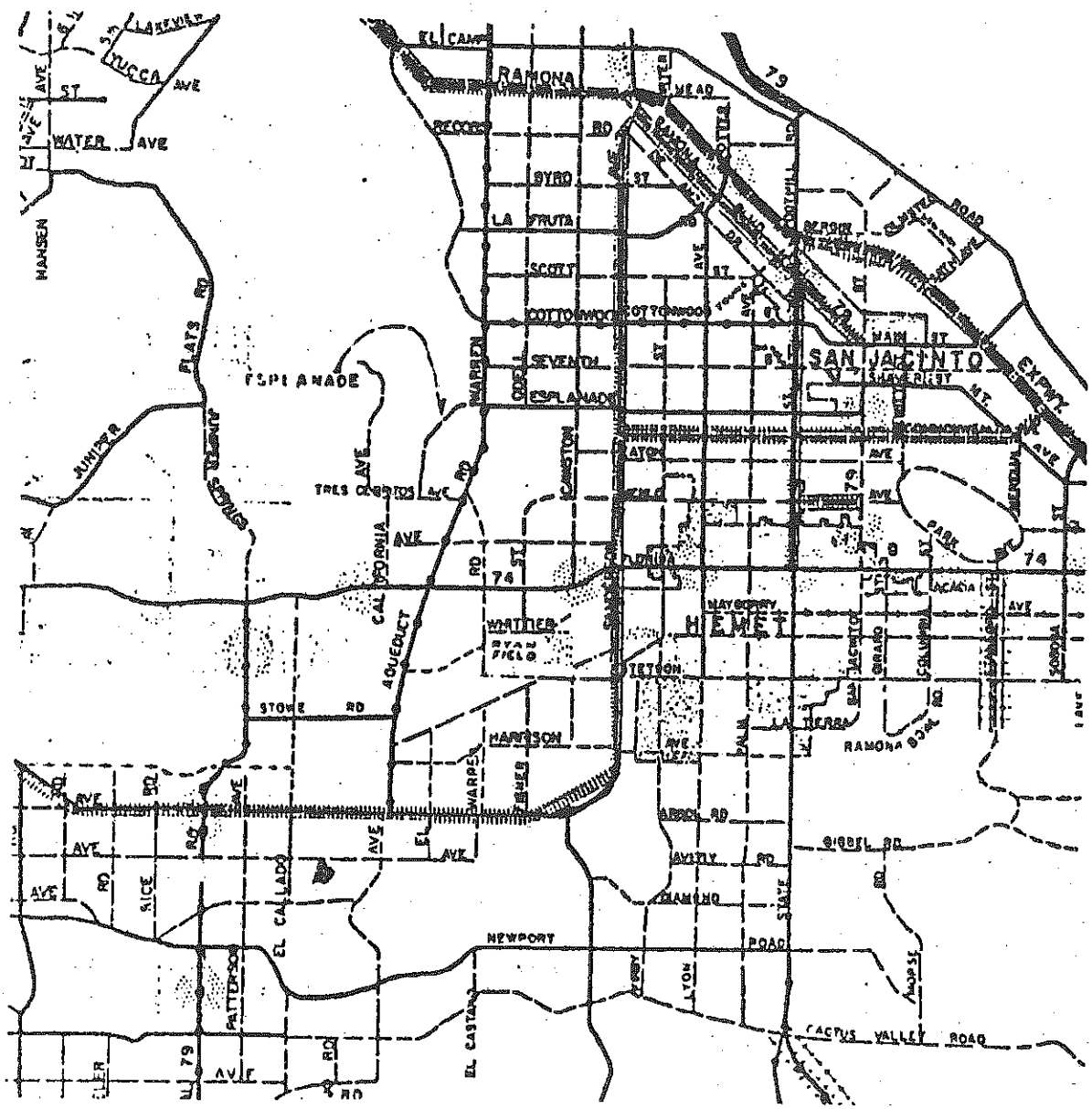
Source:

ULTRASYSTEMS

Title:

SOUTHWEST AREA CIRCULATION SYSTEM

15



LEGEND

CLASSIFICATION	RIGHT OF WAY
COLLECTOR	66'
SECONDARY	88'
MAJOR	100'
ARTERIAL	110'
EXPRESSWAY	VARIABLE
FREEWAY	VARIABLE
FREEWAY	FREEWAY PROPOSED ON STATE PLAN, BUT LOCATION UNDETERMINED — FREEWAY MAY BE SEVERAL MILES REMOVED

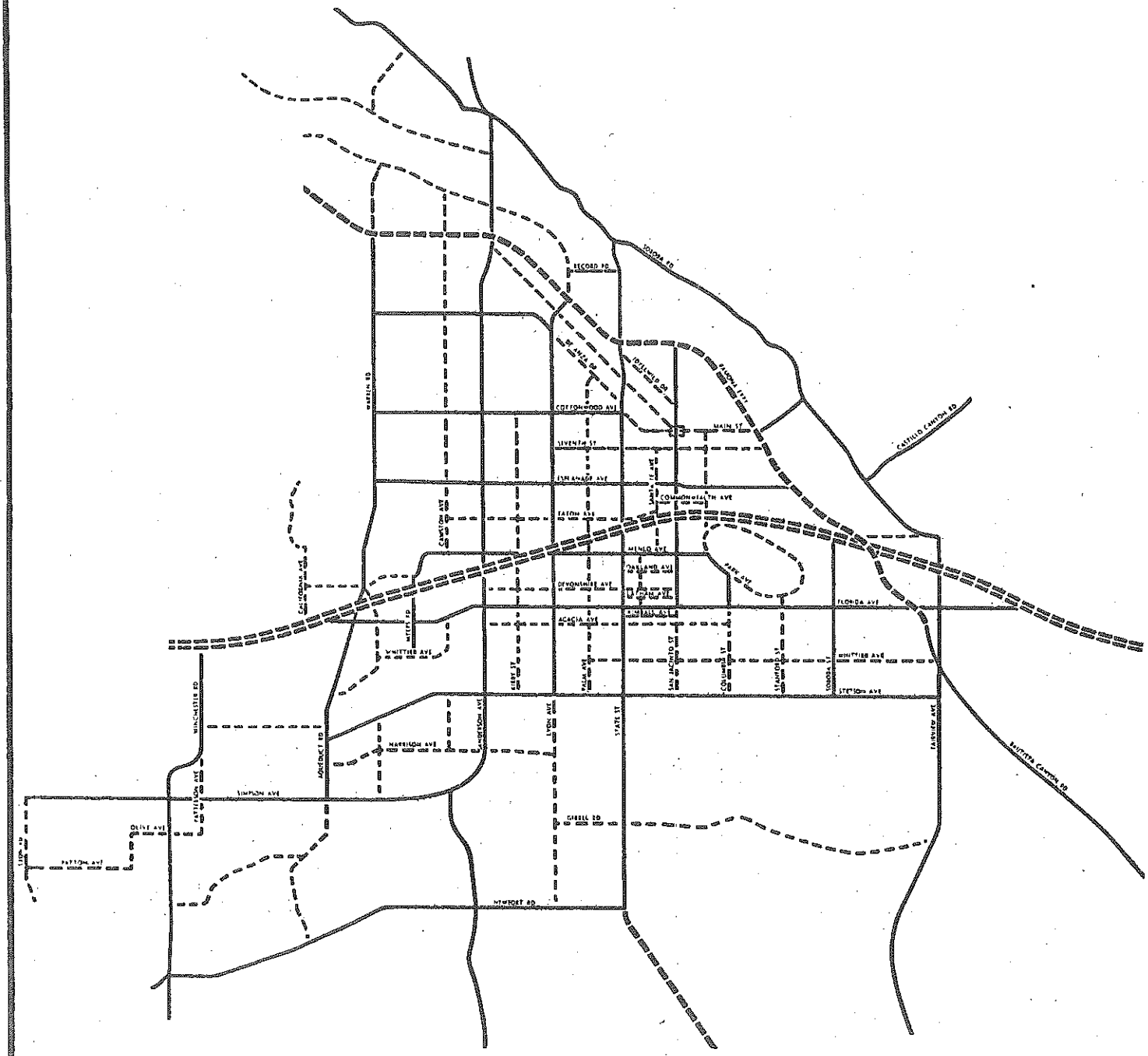
SPECIFIC PLAN ROADS & SPECIAL CASES
(Not a part of the Official General Plan of Highways Map)

NORTH

Source:
COUNTY OF RIVERSIDE

Title:
PLAN OF STREETS AND HIGHWAYS
CIRCULATION ELEMENT
RIVERSIDE COUNTY GENERAL PLAN

16



LEGEND

THE HEMET SAN JACINTO GENERAL PLAN

MASTER PLAN OF HIGHWAYS

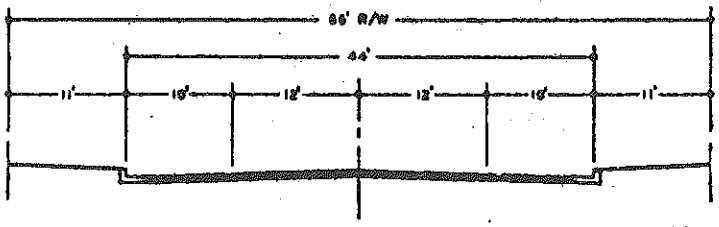
	Right of Way
SECONDARY	80'-88'
MAJOR	100'-110'
EXPRESSWAY	VARIABLE
FREEWAY	VARIABLE

NORTH

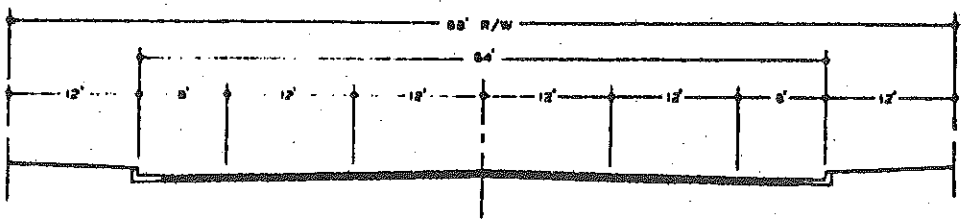
Source: CITY OF HEMET

Title: MASTER PLAN OF HIGHWAYS THE HEMET-SAN JACINTO GENERAL PLAN

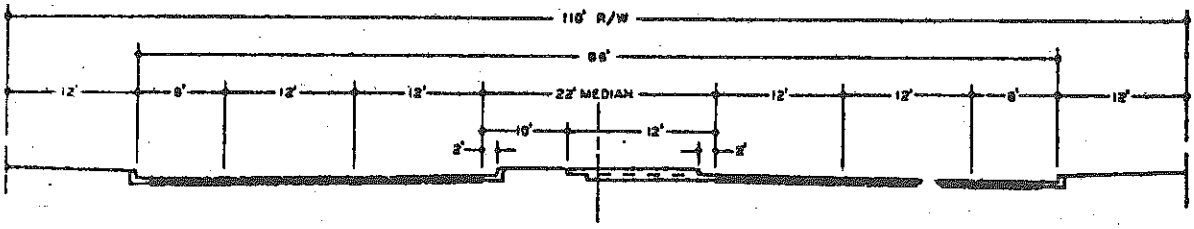
17



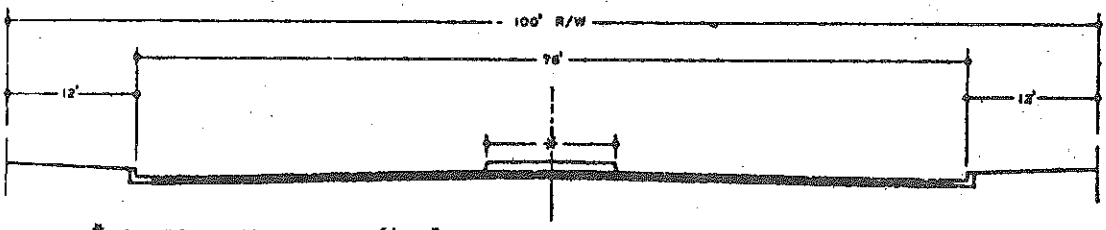
COLLECTOR HIGHWAY



SECONDARY HIGHWAY



ARTERIAL HIGHWAY



*VARIABLE BARRIER OR PAINTED MEDIAN (6' TO 12')

MAJOR HIGHWAY

	Source: COUNTY OF RIVERSIDE	Title: TYPICAL CROSS-SECTIONS CIRCULATION ELEMENT RIVERSIDE COUNTY GENERAL PLAN	18

designates Sanderson Avenue as a Major Highway and indicates a specific alignment has been established for that roadway. Sanderson Avenue is currently 26 feet wide and provides one travel lane in each direction. At the present time northbound and southbound traffic on Sanderson Avenue is required to stop at the intersection with Stetson Avenue, however, traffic is not required to stop at the intersection with Acacia Avenue. There is also an unimproved transition road from southbound Sanderson to westbound Acacia Avenue which permits an uncontrolled southbound to westbound movement at that location. The intersection of Sanderson Avenue and Florida Avenue is signal controlled. Sanderson Avenue carries traffic volumes of roughly 4000 vehicles per day within the southwest study area with PM peak hour traffic volumes averaging just under 400 vehicles per hour.

There has been some discussion by County, State, and City officials regarding the designation of Sanderson Avenue as State Route 79. This action could increase the amount of traffic carried by Sanderson Avenue. However, while City officials believe this change could be feasible within three to five years, Caltrans officials do not expect this action to occur within the next 15 to 20 years.

The Santa Fe Railroad lines cross Sanderson Avenue between Stetson Avenue and Acacia Avenue. Currently this crossing is only controlled by flashing red signals and although only one train per day currently crosses Sanderson Avenue, additional control would probably be needed as traffic volumes increase.

Stetson Avenue provides direct east-west access to and within the Southwest Hemet study area and also provides indirect access to major north-south routes. Stetson Avenue is also classified as a major highway on the Hemet-San Jacinto General Plan's Master Plan of Highway (76 foot curb-to-curb width within a 100 foot right-of-way). However, it is classified as a Secondary Highway on the Circulation Element of the Riverside County General Plan (this designates a 64 foot roadway within an 88 foot right-of-way width). Currently, two eastbound lanes and one westbound lane exists easterly of Cawston Avenue while only one lane in each direction is provided westerly of Cawston Avenue. East of Sanderson Avenue, Stetson Avenue widens to a full,

four lane, 76 foot wide roadway. It continues this four lane cross-section to the east of the study area. Recent traffic counts on Stetson Avenue within the southwest study area indicate Stetson Avenue currently carries a traffic volume of approximately 5200 vehicles per day east of Sanderson Avenue while traffic volumes west of Sanderson Avenue drop to 3200 vehicles per day. PM peak hour traffic volumes of roughly 500 vehicles per hour exist on Stetson Avenue east of Sanderson Avenue with PM peak hour volumes of 300 vehicles per hour occurring west of Sanderson Avenue.

Warren Road is approximately 26 feet in width and provides one traffic lane in each direction. It is classified as a Secondary Highway on the Circulation Element of the Riverside County General Plan and as a Major Highway on the Master Plan of HIghways of the Hemet-San Jacinto General Plan. The descrepancy between these two master plan designations is currently not a problem but should be resolved prior to the areas full development. Warren Road traffic is controlled by stop signs at the intersection with Florida Avenue and at the intersection with Stetson Avenue. Warren Road currently carries on the order of 2100 vehicles per day between Stetson Avenue and Florida Avenue with peak hour volumes averaging just under 200 vehicles per hour. South of Stetson Avenue, daily traffic volumes increase slightly to just over 2200 vehicles per day while peak hour volumes remain approximately the same.

Lyon Avenue is currently designated as a Major Highway north of Stetson Avenue and as a Secondary Highway south of Stetson Avenue in the Circulation Element of the Riverside County General Plan. This designation is also shown on the Master Plan of Highways in the existing Hemet-San Jacinto General Plan. At the present time, Lyon Avenue is a two lane, residential roadway north of Stetson Avenue providing access into the central area of the City of Hemet. It currently ends at the southern boundary of the existing Seven Hills development which roughly coincides with the master planned extension of Harrison Avenue. Existing residential development north of Stetson Avenue may preclude the ultimate improvement of Lyon Avenue to its master planned major highway standards.

Acacia Avenue is designated as a local collector street on both the Circulation Element of the Riverside General Plan and the Master Plan of Highways of the Hemet-San Jacinto General Plan. Acacia Avenue is currently about 32 feet wide and provides one travel lane in each direction within the Southwest Hemet study area. Acacia Avenue intersects Sanderson Avenue at the end of a slight horizontal reverse curve and traffic is required to stop at a stop sign at this intersection. Acacia Avenue carries approximately 1600 vehicles per day in this area with PM peak hour traffic volumes of 150 vehicles per hour. East of the study area, Acacia Avenue varies in width but continues to provide one traffic lane in each travel direction. Traffic volumes on Acacia Avenue east of the study area increase to just over 3100 vehicles per day.

Florida Avenue (State Highway 74) serves as the major route to and from the greater Hemet area and is the primary highway facility in the City of Hemet. It is designated as a Major Highway on both the Circulation Element of the Riverside County General Plan and the Master Plan of Highways of the Hemet-San Jacinto General Plan. While the actual pavement width varies on Florida Avenue, it provides two lanes of traffic in each direction along its entire length through the City of Hemet with exclusive left turn lanes provided at major intersections. Traffic volumes on Florida Avenue range from 14,400 vehicles per day west of Sanderson Avenue to over 20,300 vehicles per day in the downtown central business district area of Hemet.

The remaining master planned roadways that would directly serve the Southwest Hemet study area are Kirby Avenue, Cawston Avenue, Harrison Avenue, Fischer Street and Simpson Road. Cawston Avenue is currently a dirt road south of Stetson Avenue and is a two lane paved roadway leading to the Hemet Ryan Airport northerly of Stetson Avenue. It intersects Wrentworth Avenue near the airport entrance with Wrentworth Avenue providing access to Sanderson Avenue northeast of this intersection. Cawston Avenue is currently stop sign controlled at the intersection with Stetson Avenue. Cawston Avenue is designated as a Secondary Highway on both the Riverside County Circulation Element and the Hemet-San Jacinto Master Plan of Highways.

Harrison Avenue is the first east-west street southerly of Stetson Avenue. It is currently developed to a 20 foot pavement width only between Warren Road and Sanderson Avenue. It is designated as a Secondary Highway on both the Riverside County and Hemet-San Jacinto General Plans. Traffic volumes on Harrison Avenue are minimal and average less than 100 vehicles per day. Kirby Avenue, Fischer Street and Simpson Road are currently undeveloped within the Southwest Hemet study area but would provide additional access as the area developed. The master plan designations for Kirby Avenue, Fischer Street and Simpson Road are shown in Figures 16 and 17. As shown in both Figures 16 and 17, Simpson Road would actually become the western extension of Sanderson Avenue as it leaves the Southwest Area.

Recent area traffic counts for the street system serving the Southwest Hemet study area are shown in Table 3. These counts were performed by Car Counter Company of Playa del Rey and are listed in terms of 24 Hour, AM Peak Hour, and PM Peak Hour totals.

The only public transit service that currently exists in the City of Hemet is a dial-a-ride system which operates small vans, providing a demand-responsive system for all residents.

TABLE 3

SOUTHWEST AREA TRAFFIC VOLUMES

STREET/LOCATION	DATE/DAY	DIR	24-HOUR	AM PEAK HOUR HR. BEG.	AM PEAK HOUR VOL.	PM PEAK HOUR HR. BEG.	PM PEAK HOUR VOL.
Acacia E/o Sanderson	9/6/77	EB	720	10:45	72	4:00	65
		WB	888	10:45	85	4:00	88
		TOT	1608	10:45	157	4:00	153
Acacia at Lyon	11/10/78	EB	1772	11:15	201	3:00	229
		WB	1391	11:30	168	3:15	164
		TOT	3163	11:15	362	3:00	381
Acacia W/o State	10/4/78	EB	1585	10:30	162	3:45	158
	10/5/78	WB	1541	11:00	139	3:30	161
		TOT	3126	10:30	294	3:30	314
Florida E/o Acacia	9/6/77	EB	7278	10:00	672	4:00	558
		WB	7086	9:45	581	4:00	498
		TOT	14,364	10:00	1252	4:00	1156
Florida W/o State	8/9/78	EB	10,164	9:45	849	12:30	805
		WB	10,140	11:00	775	12:00	802
		TOT	20,304	9:45	1605	12:00	1602
Harrison E/o Warren	3/22/78	TOT	67	10:00	14	3:00	9
Latham at State	10/11/78	EB	1999	10:45	182	3:30	175
	10/12/78	WB	3187	10:45	284	12:00	320
		TOT	5186	10:45	466	12:00	486
Lyon at Acacia	11/10/78	NB	3129	11:45	303	12:00	314
		SB	3072	11:30	324	3:45	335
		TOT	6201	11:30	625	3:15	650
Lyon at Stetson	11/16/78	NB	760	9:00	100	4:15	94
	11/17/78	SB	1522	11:00	147	12:00	158
		TOT	2282	9:15	232	4:00	235
Sanderson S/o Acacia	9/6/77	NB	1843	7:00	178	2:45	185
		SB	2182	10:45	232	2:00	192
		TOT	4025	10:45	394	2:45	372
San Jacinto S/o Acaica	10/3/78	NB	2518	7:45	270	2:30	221
	10/4/78	SB	2456	10:45	179	2:45	254
		TOT	4974	7:45	381	2:45	466
Seven Hills Approach to Stetson	11/17/78	NB	824	9:30	85	2:45	103
Stetson at Lyon	11/16/78	EB	3028	11:00	264	3:30	341
	11/17/78	WB	4225	11:00	396	12:15	390
		TOT	7253	11:00	660	3:30	694
Stetson E/o Sanderson	3/22/78	EB	2400	11:00	197	4:00	266
		WB	2777	11:00	228	3:00	232
		TOT	5177	11:00	660	3:30	694
Stetson W/o Sanderson	9/6/77	EB	1603	11:00	118	3:15	161
		WB	1588	7:00	129	3:15	123
		TOT	3191	11:00	338	3:15	284
Stetson Approach to Seven Hills	11/17/78	EB	2999	11:00	213	4:30	335
		WB				3:00	300
		TOT				3:00	567
Warren N/o Stetson	3/22/78	NB	1432	7:00	132	3:00	108
		SB	680	7:15	56	4:45	62
		TOT	2112	7:30	226	3:00	164
Warren S/o Stetson	3/22/78	NB	1128	11:00	88	4:00	133
		SB	1073	11:00	91	3:00	99
		TOT	2201	11:00	179	4:00	201

3.9 Open Space and Conservation

Within the project area, the southwest corner currently has an agricultural preserve status granted under the California Land Preservation Act of 1965 (Williamson Act). As Figure 19 indicates, the Southwest Area has Class I and II capability soils which represent few to moderate limitations with respect to the choice of field crops. Class I and II soils are considered prime agricultural land. There are small areas of Class III and IV capability soils requiring significant conservation practices which could preclude agricultural use due to economic feasibility. There are also small areas of Class V and VIII capability soils in or near the Domenigoni Mountains which would prohibit agricultural uses due to conservation requirements.

Prime agricultural land in the Southwest Area has been utilized primarily for irrigated pasture, alfalfa and potatoes. The Southwest Area has been subject to tax pressure brought about by urban development, occurring largely as scattered mobile home developments. The Hemet Area Regional Plan Goals* recommend that agricultural land should be retained.

The Hemet Open Space Conservation Element designates the Domenigoni Mountains as a significant scenic area, portions of which are within the southern boundary of the project site. The hillsides facing the City provide a scenic backdrop for valley development.

The San Diego Aqueduct right-of-way is indicated as a regional bicycle trail on the County's Bicycle Trail Plan.

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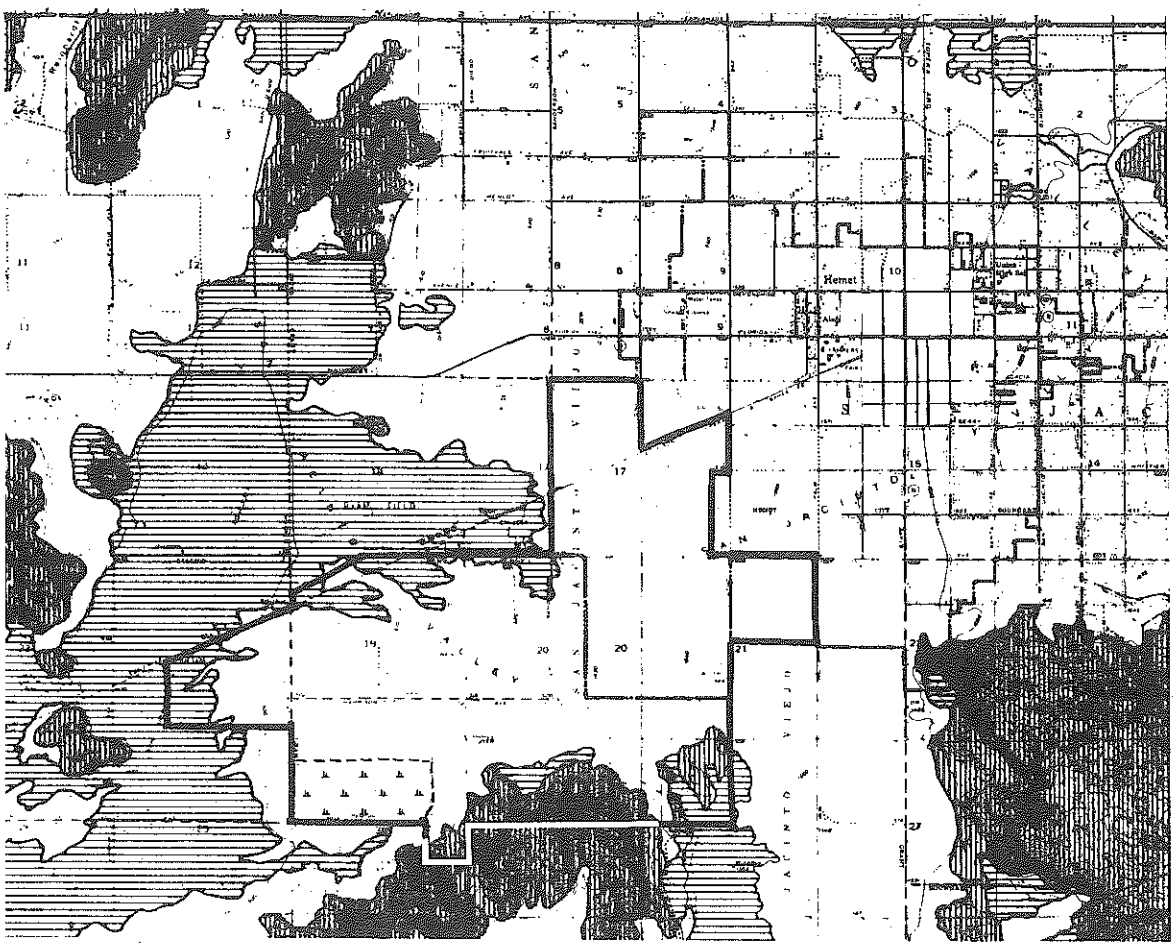
* Hemet Open Space and Conservation Element.



SOIL CAPABILITY

CLASS I & II (PRIME AGRICULTURE)

CLASS III & IV

CLASS V-VIII

STUDY AREA BOUNDARY

AGRICULTURAL PRESERVE

NORTH

	Source: OWEN, MENARD, & ASSOCIATES	**Title:** SOILS CAPABILITY AND OPEN SPACE MAP	**19**

3.10 Public Services and Utilities

3.10.1 Public Services

3.10.1.1 Fire Protection

The City of Hemet Fire Department currently operates two fire stations. The Headquarter Station is located near City Hall at 220 North Juanita, and Station No. 2 is located near the intersection of Stetson and Palm Avenues at 895 Stetson Avenue, as shown in Figure 20. The Headquarter Station is equipped with five men, one engine and a ladder truck. Station No. 2, which is closest to the project site, is currently manned with three men and has one fire engine. Both of these stations are manned 24 hours a day.

Paramedic service is not provided by the City, but is offered through a private ambulance firm, Hemet Valley Ambulance.

All structure fires are responded to by 2 engines, the ladder truck and a chief officer. Medical aid calls are handled by the nearest engine company and the ambulance company (paramedics). There are 8 active reserve personnel who would respond to a second call, or as a reserve status to the original call. The response time to most of the Southwest Area is greater than 5 minutes from both stations.

If needed, Engine #27 from Ryan Field would respond, and also, Engine #26 from Stanford. Both of these are Riverside County volunteer Fire Stations.

The Fire Department's long-range plans for servicing the developing areas of west Hemet include eventual construction of two stations which would be available for fire protection to the project area. The closest station would be the one proposed to be located near the airport industrial area, probably on Stetson Avenue. The other station will most likely be constructed in the vicinity of Menlo and Sanderson Avenues north of the site. The latter station will probably be constructed first due to the rapid residential development which is occurring in that particular area. It is expected that this station, however, will not be constructed for about five years. However, this date could be advanced or delayed depending on the growth rate of the area and the demonstrated need for the station.*

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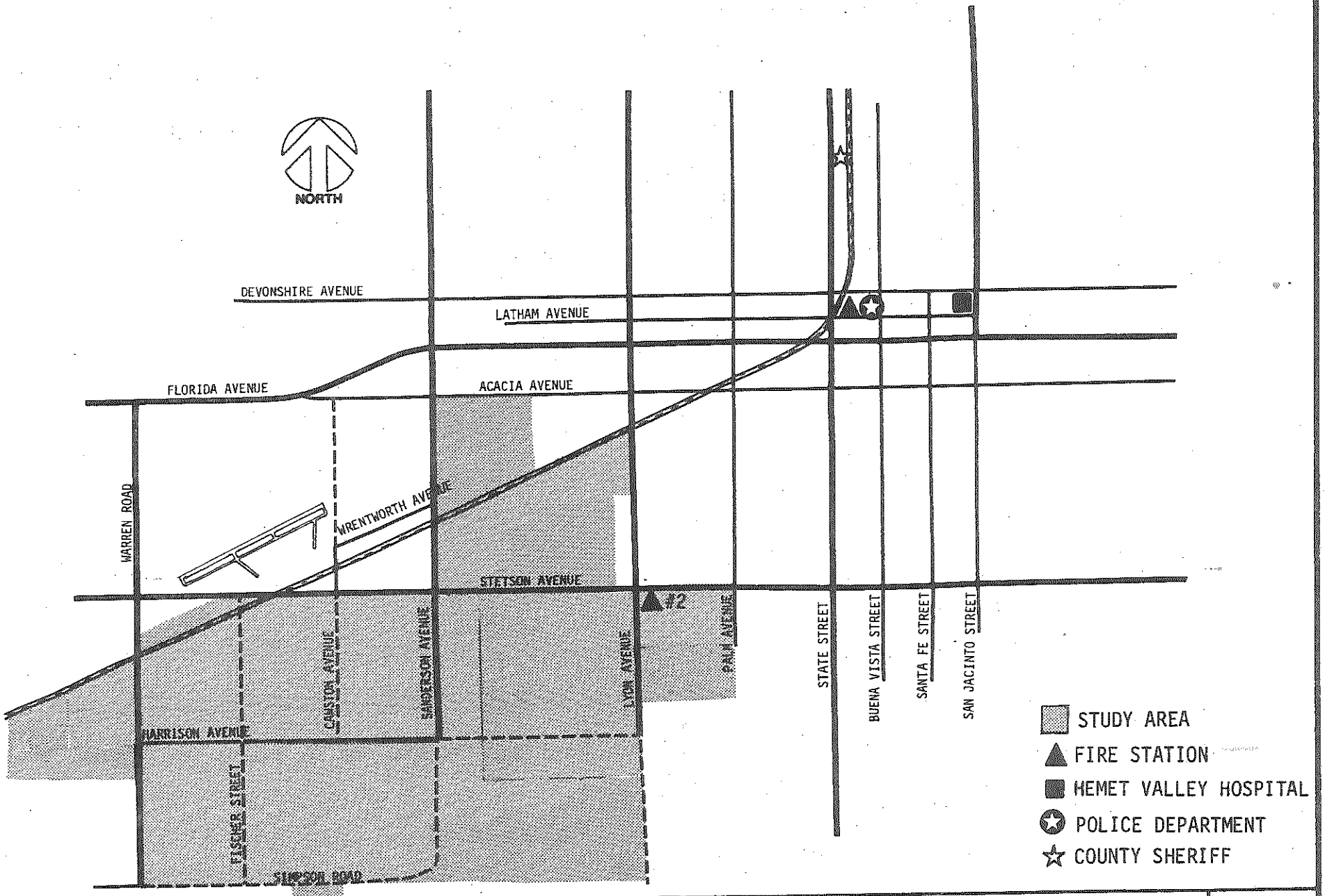
* Richard Feuerstein, Assistant Fire Chief, City of Hemet Fire Department.



Source: ULTRASYSTEMS, INC.

Title: PUBLIC SERVICES LOCATION MAP

20

3.10.1.2 Police Protection

Police protection is provided by the City of Hemet Police Department, as shown in Figure 20. The Police Department operates with approximately 19 officers on the street and an average 4 cars that patrol the City on a 24 hour basis. The Southwest Area currently requires minimum police protection. Most of the land is undeveloped so there is little need to patrol the area regularly. The response time to the Southwest Area by the Police Department would be five to ten minutes.

The Police Department has not grown in proportion to the City's growth in population. The Department believes they should have at least 2 police officers per 1,000 population, however they have been alloted only 1.4 thus far.*

3.10.1.3 Schools

The Hemet Unified School District serves the Hemet - San Jacinto Valley with a Junior High, Senior High, an Intermediate School (grades 6 and 7) and eight Elementary Schools. Schools serving the Southwest Area and student enrollment/capacity figures are presented in Table 4, and illustrated in Figure 21.

TABLE 4

School	Grade Level	Capacity	1977-78 Enrollment	Percent Utilization
Winchester Elementary	K-6	270	230	85%
Whittier Elementary	K-6	870	749	86%
Acacia Intermediate	6-7	900	846	94%
Hemet Junior High	8-9	1,305	1,279	98%
Hemet Senior High	10-12	1,630	1,679	103%

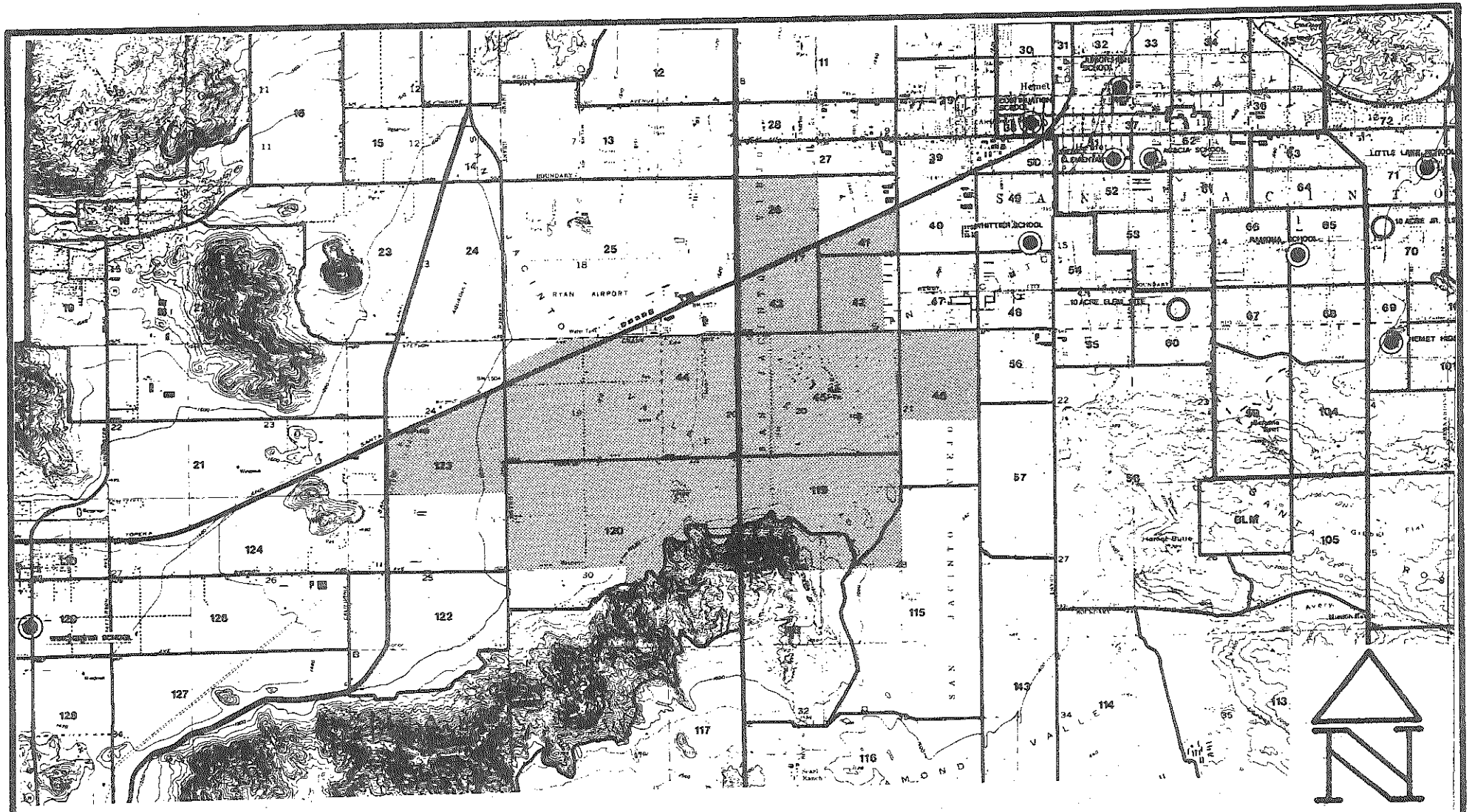
The schools are presently increasing their enrollments at a rate of approximately 3% per year. All schools are near capacity and there are no plans for increasing the capacity of the schools. It should be noted that when elementary schools are at 97% capacity, for all practical purposes they are filled.**

3.10.1.4 Hospital Care

The only hospital that currently serves the Hemet area is the Hemet Valley Hospital, located at 1116 East Latham Avenue, as shown in Figure 20. The present capacity is currently operating at near capacity. There is an

* Roger Miller, Captain, Commander Operation Division, City of Hemet Police Department

** Paul Robinson, Assistant Superintendent, Business Services, Hemet Unified School District.



LEGEND

SCHOOL SITES

DISTRICT OWNED SITES

STUDY AREA

2000

0 4000

Source:

HEMET UNIFIED SCHOOL DISTRICT
LONG RANGE MASTER PLAN
JANUARY, 1978

Title:

SCHOOL SITE LOCATION MAP

21

additional medical-surgical unit of 90 beds under construction which is expected to open in April of 1979. Three more floors can also be added to this structure when there is a need demonstrated for the addition. The large proportion of elderly patients in the Hemet area require a proportionately greater amount of nursing care and medical attention.*

3.10.2 Public Utilities

3.10.2.1 Electricity

Southern California Edison Company provides electrical service to the Southwest Area, as shown in Figure 22. Electrical circuits extend from Esplanade along Palm Avenue as far south as Thornton Avenue, along Lyon as far south as the Seven Hill Development, and along Kirby Avenue almost as far south as the A.T. and S.F. Railroad track. A pole-top substation approximately one mile north of Stetson Avenue on Warren Road extends a circuit in a north direction to Florida Avenue and in a south direction to Simpson Avenue. This substation is currently operating at its capacity.

A new substation located on Sanderson Avenue approximately 1/4 mile north of Stetson Avenue has a 28 circuit capacity, however, 3 circuits are currently operating. One circuit extends south along Sanderson Avenue to Stetson Avenue and extends north until it intersects with the circuit along Esplanade Avenue. Two circuits extend along Stetson Avenue in an easterly direction past the project area.

The Southern California Edison Company indicates that if plans to proceed with future construction of new generating facilities are delayed at the same time period that the total system demand is continuing to increase, then the ability to serve all customer loads during the period between now and 1981 Edison expects to meet all electrical load requirements unless the demand exceeds their estimates (of future demand) or their assumed load management efforts are not effective.**

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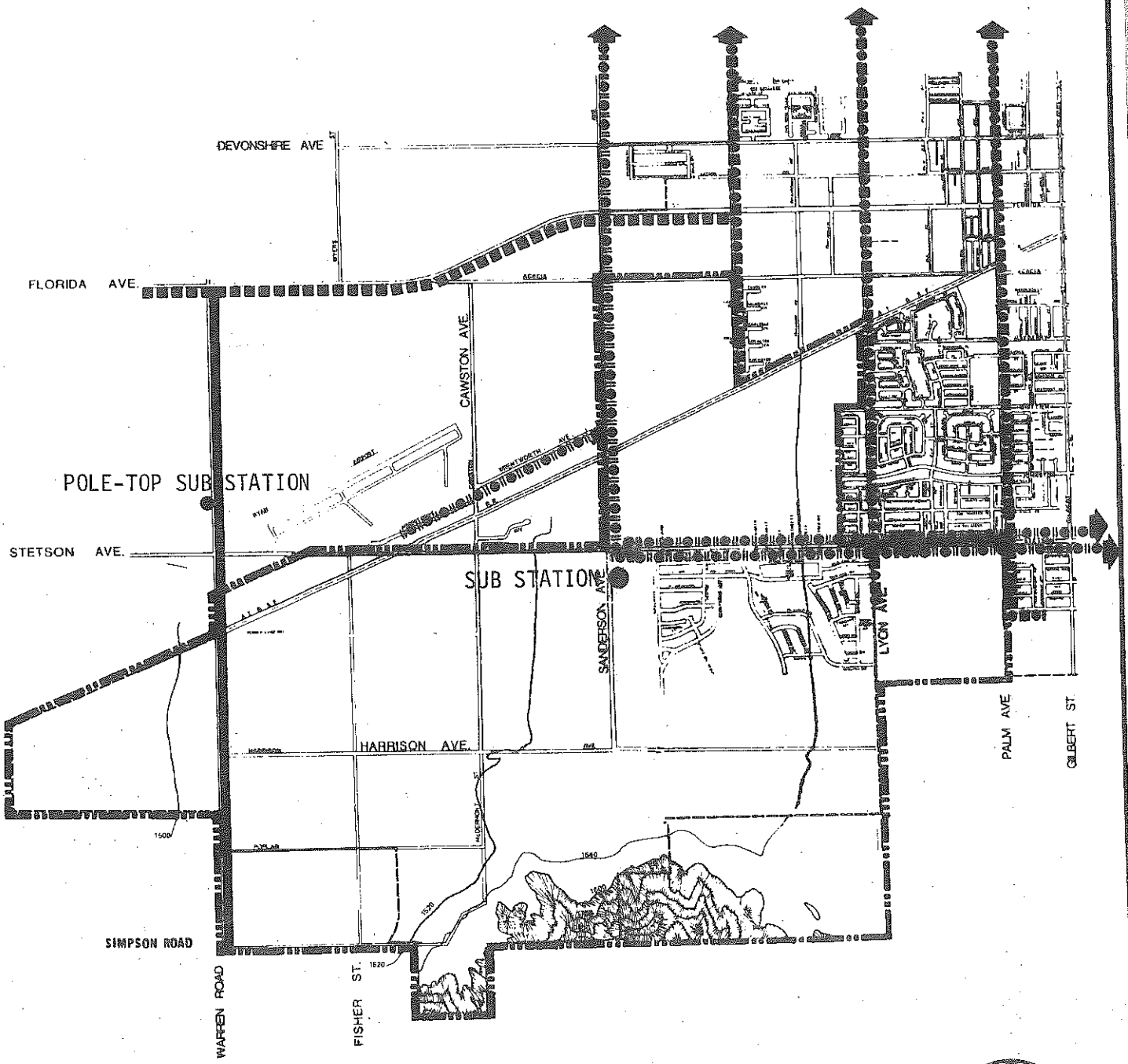
* Emory Cripe, Administrator, Hemet Valley Hospital District.

** H. E. Ashford, District Manager, Southern California Edison Company.



GAS SUPPLY LINE

CIRCUITS FROM ESPLANADE AVE. SUB STATION

CIRCUITS FROM STETSON AVE. SUB STATION

CIRCUITS FROM POLE-TOP SUB STATION ON WARREN ROAD

0' 3000' 6000'

NORTH

ultrasystems	Source: SOUTHERN CALIFORNIA GAS COMPANY	Title: ELECTRICAL SERVICE AND GAS SUPPLY LINE MAP	22

3.10.2.2 Gas

The Southwest Area is supplied with natural gas by the Southern California Gas Company, as shown in Figure 22. Their gas supply line to the area runs east and west along Florida Avenue. This existing supply line system has approximately 20% excess capacity over present requirements. The timing and location of future distribution improvements will depend on actual growth rates and patterns.*

3.10.2.3 Water

The source of water supply to the Southwest Area is local groundwater, Colorado River water, and nearby groundwater. The latter two being purveyed by E.M.W.D. through a portion of their system as shown on Figure 23, in Sanderson Avenue, Cawston Avenue, Warren Road, Wentworth, Stetson, Harrison, Simpson, Lyon, and Palm. The Simpson line ties into the Perris Valley system. Imported State Project water will be a future fourth source of water.

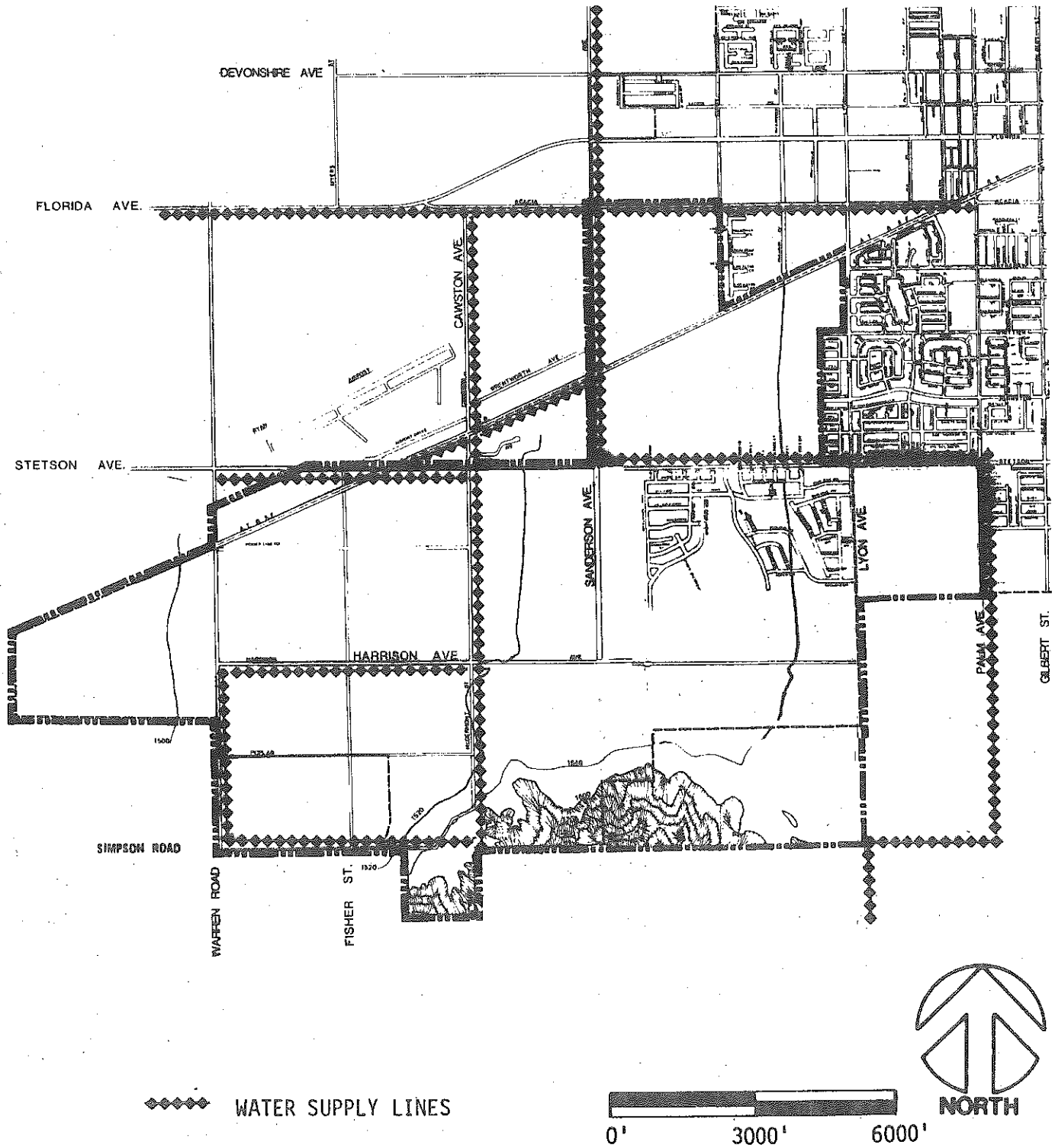
Water lines servicing the area vary in size from 8 to 12 to 30 inches. The Southwest Area is serviced by water mains that run east and west along Acacia, Wentworth, Stetson, Harrison and Thorton Avenues; and north and south along Warren Road, and Cawston and Sanderson Avenues. The Palm and Lyon Avenue water mains extend from the City of Hemet through Diamond Valley, as shown in Figure 23.

3.10.2.4 Sewage

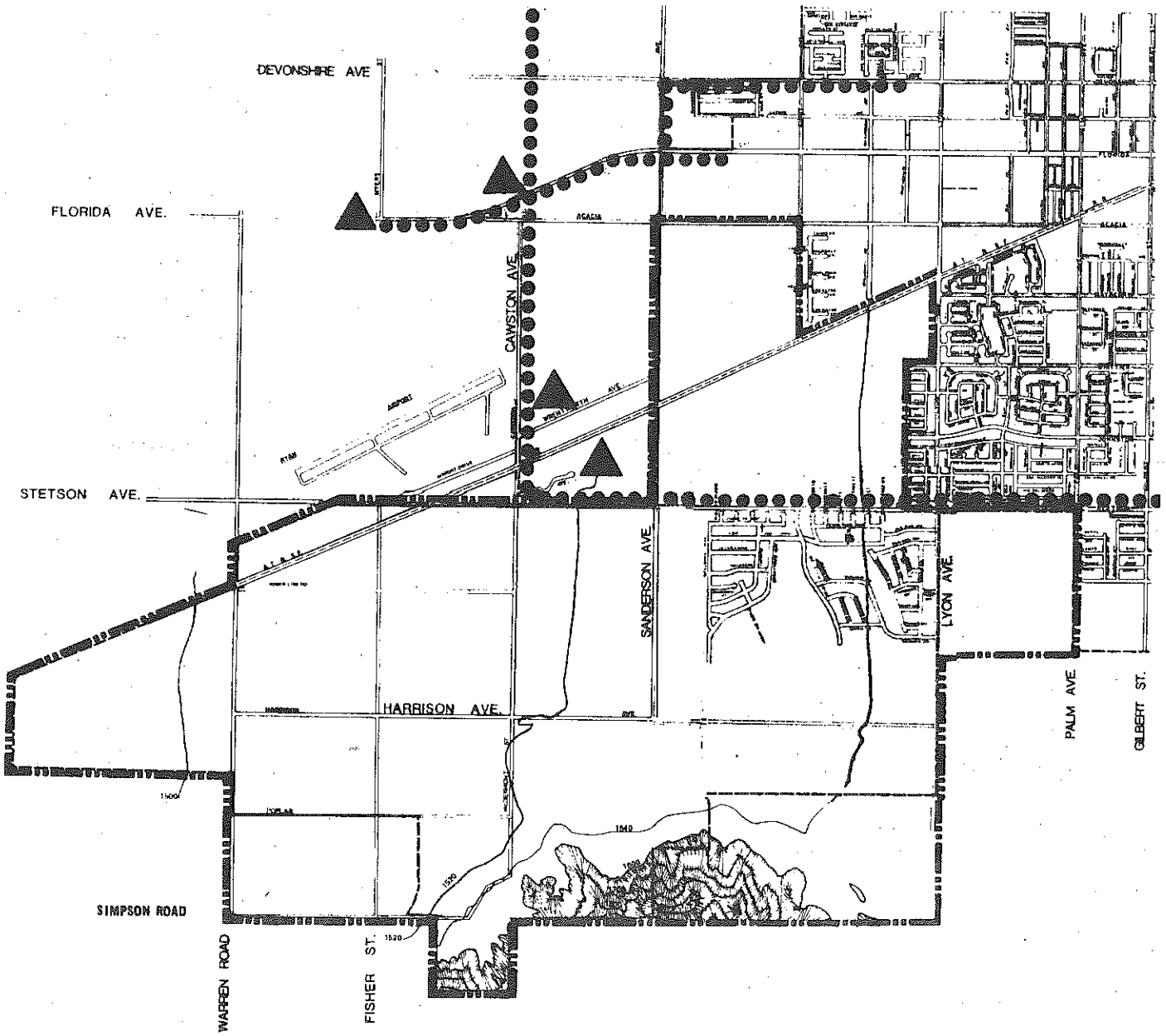
The Southwest Area is within the Eastern Municipal Water District. The District provides regional trunk transmission, treatment, reclamation, and disposal for the San Jacinto Valley area. E.M.W.D. presently has a 21" trunk main in Stetson Avenue, as shown in Figure 24. This main then goes north on Cawston to a lift station on the north side of the A.T. & S.F. railroad. Additional gravity and force mains proceed to the north to the regional water reclamation facility on Sanderson Avenue, approximately 3/4 mile north of Cottonwood. The 15" force main from the District's Cawston lift station goes as far north as Menlo Avenue and is not near capacity.

The Hemet-San Jacinto Regional Water Reclamation Facility has a present capacity of 5 MGD. This leaves an unused capacity of approximately 1.5 MGD. The 21" main along Stetson presently handles a flow of about

* R. C. Wright, Distribution Planning Supervisor, Southern California Gas Company.



ultrasystems	Source: EASTERN MUNICIPAL WATER DISTRICT	Title: WATER SUPPLY LINE MAP	23



SEWAGE LINES

TREATMENT FACILITIES

0' 3000' 6000'

NORTH

Source: EASTERN MUNICIPAL WATER DISTRICT	Title: SEWAGE LINES AND SEWAGE TREATMENT FACILITIES	24

250,000 gallons per day. The capacity of this 21" is 3 MGD. There is an unused capacity of about 2.75 MGD in this 21" main along Stetson.*

3.10.2.5 Telephone

The Southwest Area is currently serviced by the General Telephone Company. As Figure 25 illustrates, most of the project area is serviced by distribution lines extending south from Florida Avenue along Cawston, Sanderson, Lyon and Palm Avenues, and controlled by the Hemet Central Office. The service in the extreme southwestern portion of the project area is supplied by the Homeland Central Office. The distribution lines extend east on Simpson and Thorton Avenue to Warren Road, south on Warren Road 1000', north on Warren Road to Harrison Avenue, and east on Harrison Avenue approximately 3000'.

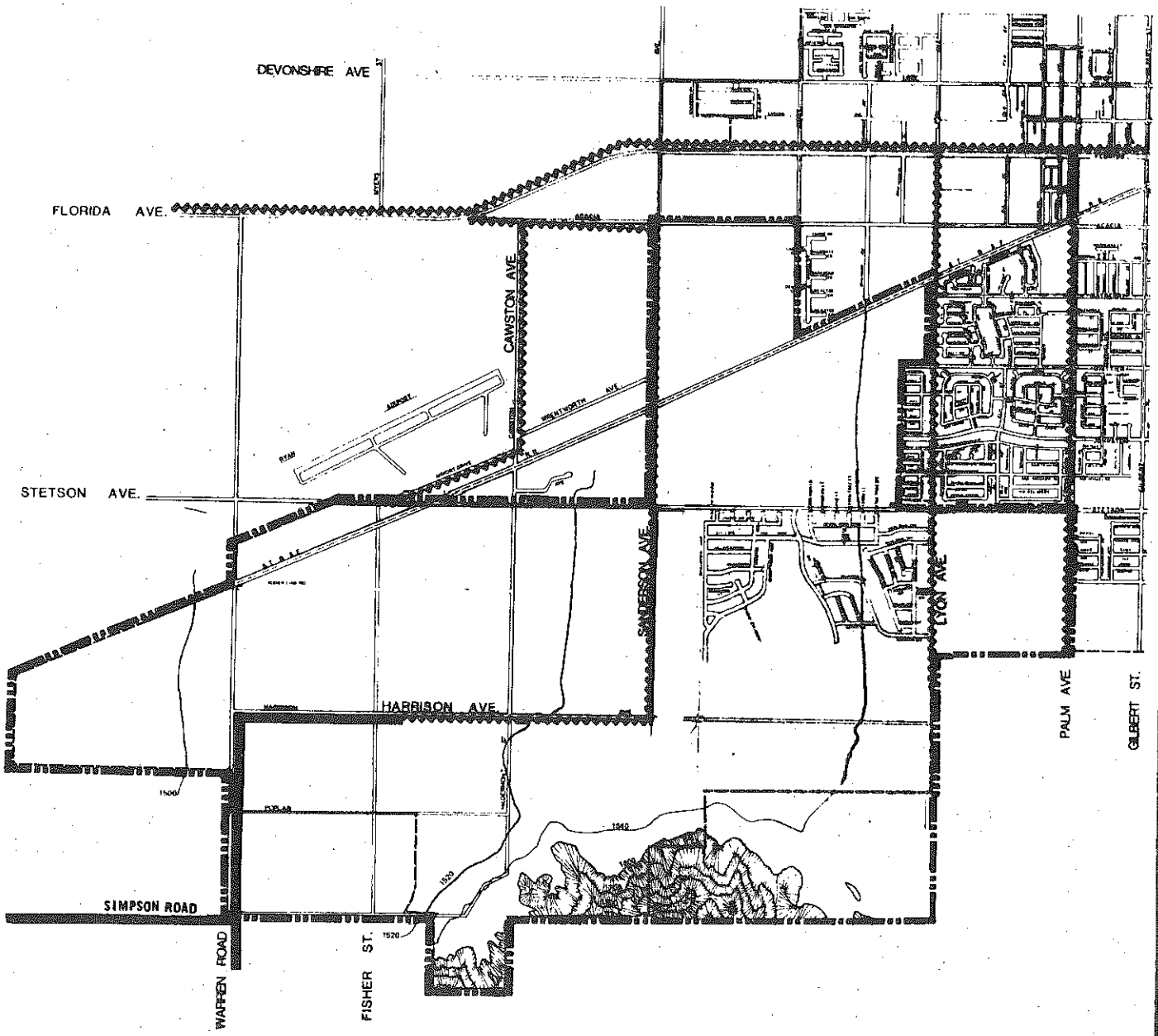
3.10.2.6 Solid Waste Disposal

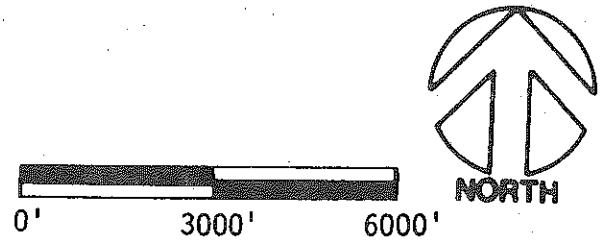
Refuse service is provided for as a governmental service by the City of Hemet. The twice-a-week pick-up service is provided by City-owned equipment. The trash is deposited at two landfill sites which are operated by the Riverside County Road Department.

The two landfill sites used by the City are both Class II disposal sites. The disposal site located west of the community of Winchester is a 300 acre site. This most frequently used site has a life expectancy of beyond the year 2000 with the termination date of this site dependant on its concurrent use as a County Regional Park. A portion of this site is already in use for recreational activities.

The other landfill is in Lamb Canyon, 12 miles northwest of the City on Highway 79. This site also has a life expectancy of beyond the year 2000. With the uphill grade leading to the disposal site, the City of Hemet uses this site less frequently.

* James Bunts, Junior, Eastern Municipal Water District.





LINES FROM HEMET CONTROL OFFICE

LINES FROM HOMELAND CONTROL OFFICE

	Source: GENERAL TELEPHONE COMPANY	Title: TELEPHONE DISTRIBUTION LINES	25

3.11 Energy

Land uses within the Southwest Area are open space, agricultural, and agriculturally related residential, with the exception of 3 acres light industrial, 2 mobile home parks and a cemetary. The Southwest Area is partially served by gas and electrical lines. Southern California Edison Company electrical distribution facilities are located along the south side of Stetson Avenue. The Southern California Gas Company supply line to the area runs east and west along Florida Avenue. Future development of the area will require extensions of these service lines into previously unserviced areas.

Modern cultivation practices require consumption of non-renewable energy sources for operation of machinery. Energy in the form of sunlight is fixed by vegetation on the site.

4.0 DISCUSSION OF IMPACTS AND MEASURES WHICH MAY MITIGATE OR ENHANCE IMPACTS

Introduction

The purpose of this section is to discuss the probable environmental impacts which will result from implementation of each Land Use Alternative and present measures which mitigate or enhance these impacts. Comparisons of impacts can then be made between the Land Use Alternatives to determine the most suitable plan. As previously discussed in the Introduction, (Section 1.0) the Land Use Alternatives may be incrementally combined into Growth Strategies which provide decision-makers with future growth options compatible with future constraints and trends. These Land Use Alternatives represent alternatives to managing growth, assuming various sets of policies regarding environmental constraints and an average density of 10 people per acre, the gross residential density of the urbanized portion of the City. The major environmental constraints have been identified as the Salt Creek Flood Plain, Hemet-Ryan Airport noise contours, and steep hillside slopes.

A brief summary of each Land Use Alternative is provided before each discussion of environmental impacts and mitigating measures.

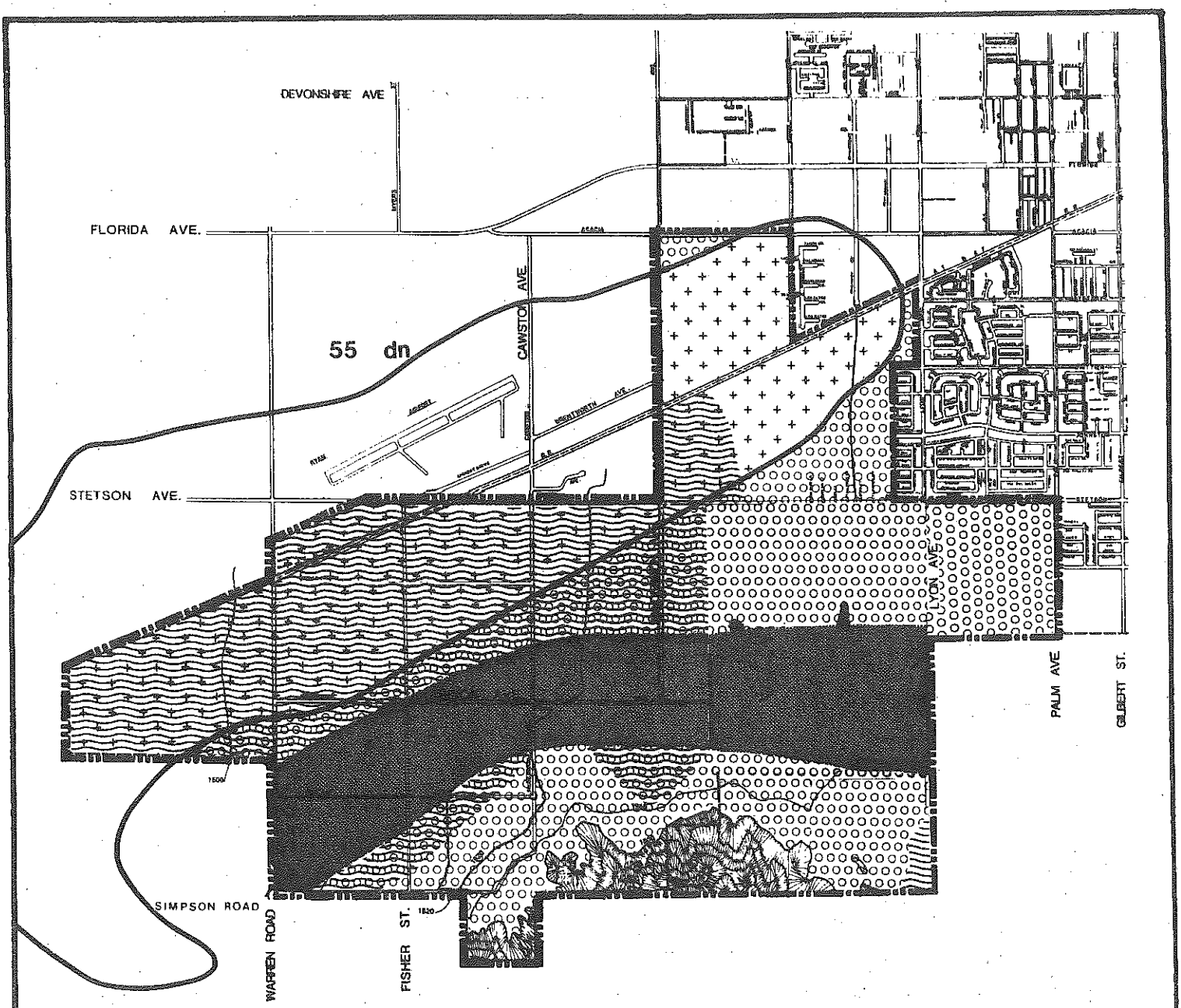
4.1 Land Use Alternative No. 1 - Impacts and Measures Which May Mitigate or Enhance Impacts

Summary of Land Use Alternative No. 1

Land Use Alternative No. 1, as shown in Figure 26, substantially limits the growth in the Southwest Area through the following use assumptions:

1) Reinforces the existing Noise Element by restricting residential developmnet within the 55 Ldn noise contour of Hemet-Ryan Airport.

2) Residential development restricted within the floodway. Development within the Flood Plain must be protected according to the Flood Insurance Program.



55 Ldn NOISE CONTOUR

FLOOD PLAIN 100 YEAR INUNDATION

FLOODWAY

NON-RESIDENTIAL USES AS PER FLOOD INSURANCE PROGRAM

NON-RESIDENTIAL USES

RESIDENTIAL USES AS PER FLOOD INSURANCE PROGRAM

RESIDENTIAL USES AVG 5.4 DU/ACRE

0' 3000' 6000'

NORTH

Source:	Title:	
ULTRASYSTEMS INC.	ALTERNATIVE 1 LAND USE MAP	26

4) Restricts development on steep hillside slopes.

5) Maximum growth of 9,390 people on 930 acres suitable for residential development. Gross densities of 2.9 people/acre and 1.5 dwelling units/acre allowed.

6) Less than 30% of the land would be developed as residential with the remainder in open space. Of the 1,000 acres within the 55 Ldn noise contour, 166 acres could be absorbed as industrial, 11 acres could be absorbed as commercial and 823 acres could be preserved as agricultural.

7) Would encourage redevelopment of existing City areas and growth in unincorporated County areas.

8) Provides maximum protection of the airport from encroachment and protects residential development from airport noise.

4.1.1 Land Use

Zoning

Land Use Alternative No. 1 would require zone changes in portions of the existing Residential Agriculture zone to allow for the increased residential densities proposed. Residential uses would be limited to those areas outside the 55 Ldn noise contour of Hemet-Ryan Airport and areas outside the floodway. Development would also be restricted on steep hillside slopes. Zoning designations would have to reflect these land use constraints.

The existing zoning allows a maximum population of 7,500 people. This alternative could generate population growth of 6,200 people in Hemet and 3,190 people in the County, or a total of 9,370 people in the Southwest Area.

It is anticipated that 166 acres within the 55 Ldn noise contour would be available for industrial and commercial uses. The remainder of the site not developed for residential, commercial and industrial uses will remain in agricultural and open space use.

General Plan

Land Use Alternative No. 1 will deviate from the existing General Plan by limiting population growth in the Southwest Area. However, this plan would substantially limit potential growth in the Southwest Area by providing only 620 acres of land suitable for residential development in Hemet and 319 acres suitable for residential development in the County. Maximum gross densities allowed would be 2.9 people/acre and 1.5 dwelling units per acre. The current General Plan requires a 2 acre minimum lot size with an allowable density of one dwelling unit per two acres.

This alternative reinforces the existing Noise Element of the General Plan by restricting residential development within the 55 Ldn noise contour of Hemet-Ryan Airport. The Hemet-Ryan airport will be protected from encroaching and incompatible uses. Of the 1,000 acres within the 55 Ldn noise contour, 177 acres could be absorbed as industrial and commercial land and 823 acres could be preserved as agricultural land. These uses are compatible with airport activities.

Less than 30% of the Southwest Area would be developed for residential land use. In keeping with the General Plan, most of the site would be preserved for agricultural and open space land uses, thereby allowing future land use options. By limiting the growth capacity of the Southwest Area, redevelopment and infill of existing developed areas in Hemet will be encouraged. This alternative could accommodate in the Southwest Area all of the growth projected by SCAG for the City for 1990 and 2000, but not the 8% growth prediction. In accordance with the Open Space and Conservation Element, the steep hillside slopes will be preserved as a scenic resource.

Mitigation Measures

The effects of the increase in density could be mitigated to some extent by the use of multiple and cluster housing which provides increased open space.

There should be early coordination between Riverside County, LAFCO and the City of Hemet to assure that future development of unincorporated area surrounding Hemet either be annexed into the City or conform with the Hemet General Plan. This coordination between these jurisdictions will provide the City with necessary planning controls mitigating incompatible land uses and conflicting development standards.

Unavoidable Adverse Impacts

Open space will be reduced to 76% of the Southwest Area. Approximately 690 acres of prime agricultural land will be lost.

4.1.2 Archaeology

Proposed construction related activities could constitute adverse impacts to the archaeological resources discovered at the RIV-1162 site. In addition, resources may be present on unsurveyed portions of the Southwest Area and will also be subject to destruction. The old cemetary on Stetson Avenue is not expected to be impacted by development. Once approved, new construction in the Southwest Area could then add pressure to develop adjacent areas east and northwest of the site where archaeological findings have appeared and areas of Indian activity have been recorded. The entire Page Ranch property and the Sundberg property at Stetson and Cawston have been surveyed by a qualified archaeologist. These properties do not contain archaeological resources.

Mitigation Measures

The RIV-1162 archaeological site should be resurveyed for collection of any surface debris. Based on these findings, a final report should be prepared to provide mitigation measures and recommendations. In addition, future development sites must be surveyed for archaeological resources and mitigation measures recommended on the basis of future finds.

Unavoidable Adverse Impacts

Possible destruction, impairment or removal of artifacts and features.

4.1.3 Vegetation and Wildlife

Biological resources in the Southwest Area have previously been disturbed by agricultural uses. However, the project will impact the existing vegetation and wildlife on the site by construction related clearing of vegetation and alteration of topography during site preparation. The presence

of structures, roads and human activity will also impact wildlife after construction. The project will result in the dislocation or destruction of existing vegetation and wildlife species on the site.

Approximately 76 percent of the Southwest Area will remain in agricultural use, providing an area for relocation of wildlife species. However, even the remaining open space areas will be disturbed by the adjacent construction and resident activities. Landscaping will result in the introduction of plant species not present now and may attract animals that are now infrequent or absent. Watering and fertilizing of lawns will allow new species of plants to grow in areas adjacent to the lawns. The presence of structures and fences will restrict the movement of coyotes, rabbits and other mammals and amphibians.

Mitigation Measures

The proposed preservation of approximately 76 percent of the site for agricultural use will somewhat mitigate the impact upon vegetation and wildlife. The natural and undisturbed areas will provide a habitat for wildlife to relocated. Biological resources surveys, prior to development, would provide assurance that no rare or endangered plant and wildlife species will be disturbed.

Unavoidable Adverse Impacts

Existing vegetation and wildlife species in the Southwest Area will be dislocated or destroyed.

4.1.4 Climate and Air Quality

Short-term Impacts

The construction phase of developments associated with the project will produce two sources of air pollution emissions. These are exhaust emissions from construction and grading equipment and dust generated as a result of earth movement and equipment traffic over dust ladden roads. The dust emissions may cause a nuisance to any persons who reside or park motor vehicles in the vicinity of the project. However, the emissions will be of short-term duration.

Long-term Impacts

Long-term impacts associated with the project consist of emissions generated by the following sources:

Stationary	Mobile
Off-site generation of electricity for project On-site use of natural gas for cooking, space heating, and water heating.	Mobile Vehicles

Stationary Sources

Stationary on-site emissions from natural gas combustion associated with the project are presented in Table 5. As shown in the table the contribution of project on-site stationary emissions to the total emissions projected for the project area is nearly negligible.

The stationary emissions resulting from the project electrical energy demand will occur off-site at electrical power generating plants (nuclear, oil, and hydroelectric) located throughout the utilities generating network. The total emissions due to the generation of electricity for this project are given in Table 6 assuming the power is provided by an oil burning power plant.

Mobile Sources

An estimate of the total motor vehicle emissions generated by traffic associated with Land Use Alternative 1 is shown in Table 7. As indicated in the table, the average contribution of motor vehicle emissions to the total projected emissions for Riverside County for the year 1995 is about 0.5 percent upon ultimate development.

Total Emissions

The total pollutant emissions associated with this alternative are presented in Table 8.

Mitigation Measures

1. Normal wetting procedures should be followed during the site grading operations to reduce dust emissions.

TABLE 5

LAND USE ALTERNATIVE NO. 1

EMISSIONS FROM USE OF NATURAL GAS (ON-SITE)

POLLUTANT	EMISSION FACTOR* LBS/100 FT^3	PROJECT EMISSIONS** LBS/DAY	TOTAL 1995 EMISSIONS FOR RIVERSIDE COUNTY*** TONS/DAY	PERCENT OF TOTAL COUNTY EMISSIONS
Carbon Monoxide	Negl	Negl	203	Negl
Total Hydrocarbons	Negl	Negl	40	Negl
Nitrogen Oxides	0.116	214	48	0.2
Sulfur Oxides	Negl	Negl	6	Negl
Particulates	0.018	33	29	Negl
TOTAL (Average)	--	247	326	(Negl)

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.

** Assumes 55.4 million cubic feet of gas/month.

*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

Negl = Negligible

TABLE 6

LAND USE ALTERNATIVE NO. 1

EMISSIONS ASSOCIATED WITH ELECTRICITY GENERATION (OFF-SITE)

POLLUTANT	EMISSION FACTOR* LBS/1000 KWH	PROJECT EMISSIONS** POUNDS/DAY
Carbon Monoxide	0.2	60
Total Hydrocarbons	0.18	54
Nitrogen Oxides	2.3	687
Sulfur Oxides	2.6	777
Particulates	0.401	120
TOTAL	--	1,698

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977

** Assumes 8.96 million KWH/month.

TABLE 7

ESTIMATED MOTOR VEHICLE EMISSIONS ASSOCIATED WITH LAND USE ALTERNATIVE NO. 1

POLLUTANT	EMISSION* FACTOR (GRAMS/MILE)	ESTIMATED EMISSIONS** (LBS/DAY)	TOTAL 1995 EMISSIONS FOR RIVERSIDE COUNTY TONS/DAY***	PERCENT OF TOTAL COUNTY EMISSIONS
Carbon Monoxide	3.8	2,121	203	0.5
Nitrogen Oxides	0.7	391	48	0.4
Hydrocarbons	0.5	279	40	0.3
Sulfur Oxides	0.1	56	6	0.4
Particulates	0.3	168	29	0.2
TOTAL (Average)	--	3,015	326	(0.5)

* 1995 Emission Factors, Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.

** Assumes 253,500 vehicle miles traveled.

*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

TABLE 8

LAND USE ALTERNATIVE NO. 1
ESTIMATED TOTAL EMISSIONS

POLLUTANT	TOTAL EMISSIONS LBS/DAY
Carbon Monoxide	2,181
Total Hydrocarbons	333
Nitrogen Oxides	1,292
Sulfur Oxides	833
Particulates	321
TOTAL	4,960

2. The Southern California Association of Governments (SCAG) and South Coast Air Quality Management District are currently preparing in cooperation with City and County governments an Air Quality Management Plan (AQMP) designed to achieve and maintain Federal and State air quality standards within the South Coast Air Basin. The AQMP is to be submitted for approval to the State Air Resources Board by January 1979 prior to submittal to EPA as a revision to the State's Implementation Plan. The AQMP is to identify the need for further control of stationary and mobile sources, alternate transportation strategies, and measures to reduce adverse air quality impacts associated with further growth and development. The proposed project should be reviewed for consistency with the objectives of the AQMP if finalized prior to project approval.

3. Provide for convenient bus stop locations.

Unavoidable Adverse Impacts

There will be additional emissions emitted into the southeastern portion of the South Coast Air Basin. These emissions will result in an incremental decrease in the quality of the air.

4.1.5 Geology and Soils

Development on the flat alluvial valley area will result in only slight immediate impact as development will be phased over many years. Development within the floodplain must be protected in accordance with the Flood Insurance Program which requires that finish floor elevations on all construction in the floodplain are 18 inches above the 100 year flood level. This grading requirement would result in approximately 2 to 3 feet of fill over approximately 1200 acres of developable land.

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone. The Southwest Area is about 2 miles from the San Jacinto Fault Zone and is underlain by alluvium of intermediate thickness. Earthquake shaking is expected to be strong to severe as a result of movement on any one of several faults within the San Jacinto Fault Zone. Settlement of soils due to ground-shaking could pose a major hazard, especially in areas of fill. Slippage and landslide could possibly occur in the Domenigoni Mountains. The "Land Use/Risk Matrix" in the City of Hemet Seismic Safety and Public Safety General Plan Elements (1976) indicates that light industrial, low-density residential, warehousing and storage, and agriculture and park uses are "provisionally suitable" for most of this area. The increased residential densities proposed would expose more people to the risk of human and structural loss.

Mitigation Measures

Engineering geologic investigations should be required for all new construction within the Southwest Area. Construction according to the Earthquake Regulations of the Uniform Building Code and recommendations of a qualified structural engineer should mitigate the risk of human and structural loss.

Unavoidable Adverse Impacts

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone.

The landform will be altered by grading for structures and flood control improvements.

4.1.6 Hydrology

Under this alternative land use plan, residential development would not be permitted within the floodway, which includes approximately 519 acres. As previously shown on the Floodway and Flood Plain map, Figure 12, approximately 90 percent of the Southwest Area is within a 100-year flood plain. Development within the flood plain will be permitted according to the standards set forth in the Federal Flood Insurance Program. Peak discharges occurring during a 100-year storm from the Stetson Avenue Channel at the Hemet Storm Channel will reach 1,100 cfs and will reach 9,200 cfs from Salt Creek at Lyon Avenue. These channels are not capable of handling these peak discharges and the resultant flooding will occur in over 60% of the Southwest Area.

Mitigation Measures

Both the City and the County have mechanisms to control and guide the development of flood plain areas as proposed in the Land Use, Conservation and Open Space Elements of the County and City General Plans. The Federal Flood Insurance Program will mitigate the flood hazard.

Unavoidable Adverse Impacts

The Southwest Area will be subject to flood hazards.

4.1.7 Noise

Impacts

The noise impacts considered in this section result from the following noise sources:

- GRADING AND CONSTRUCTION EQUIPMENT.
- FARMING EQUIPMENT.
- FUTURE AIRCRAFT OPERATIONS AT HEMET-RYAN AIRPORT.
- TRAIN TRAFFIC.
- FUTURE HIGHWAY TRAFFIC.

Development within the Southwest Area is expected to take place through the year 2000. Due to the phasing of residential development, the following interim noise impacts could be expected:

1) Short-term impacts due to grading and construction activities could occur within noise sensitive uses such as residences and schools which would be in close proximity to construction activities. Noise impacts would be nuisance oriented; i.e., annoyance, speech communication interference, and sleep interference (for individuals who normally sleep during daytime hours). Because construction activity is generally limited to daytime hours, no adverse noise impact would be expected during the nighttime period.

2) Residential uses (receptors) located within the Southwest Area immediately adjacent to agricultural uses could experience adverse noise impacts due to late evening and early morning alfalfa harvesting activities. The primary noise impact would be sleep interference.

In an effort to minimize potential adverse noise impacts associated with aircraft operations at Hemet-Ryan Airport, the City of Hemet has established a set of land use compatability criteria. Under Land Use Alternative 1, residential development will not be permitted within an environment which has an annual average L_{dn}* of 55 dBA or greater (see Figure 14). $(L_{dn}) \geq 65$ dBA.** Therefore, the criteria established by the City of Hemet for Land Use Alternative 1 is almost 10 dBA lower than that required by California State Law. The primary reason is that the City of Hemet has established this standard in order to provide quietness as an environmental amenity for future residents.

The contour values illustrated in Figure 14 represent the "annual average" condition predicted for 1986, however, a qualifying statement is in order. Based on data contained in the background report for Hemet-Ryan Airport noise contours (see Appendix A), the contour map does not necessarily represent

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* Refer to Appendix A for an explanation of community noise exposure levels.
** Airport Noise Regulation-California Administrative Code, Title 21, Chapter 2.5, Section 5000-5080.4.

the average day condition. Generally, fire bombers only use the airport during emergencies. Calculated as part of the annual average condition, fire bomber related aircraft (the C-119J specifically) tend to skew the results (they are significantly noisier than the general aviation aircraft), and therefore, the following two conditions will exist.

1) On days when fire bomber activity is not taking place, the noise environment would be approximately 5 dBA lower than shown for the average annual condition. This clearly represents an acceptable noise environment for future residents of the Southwest Area.

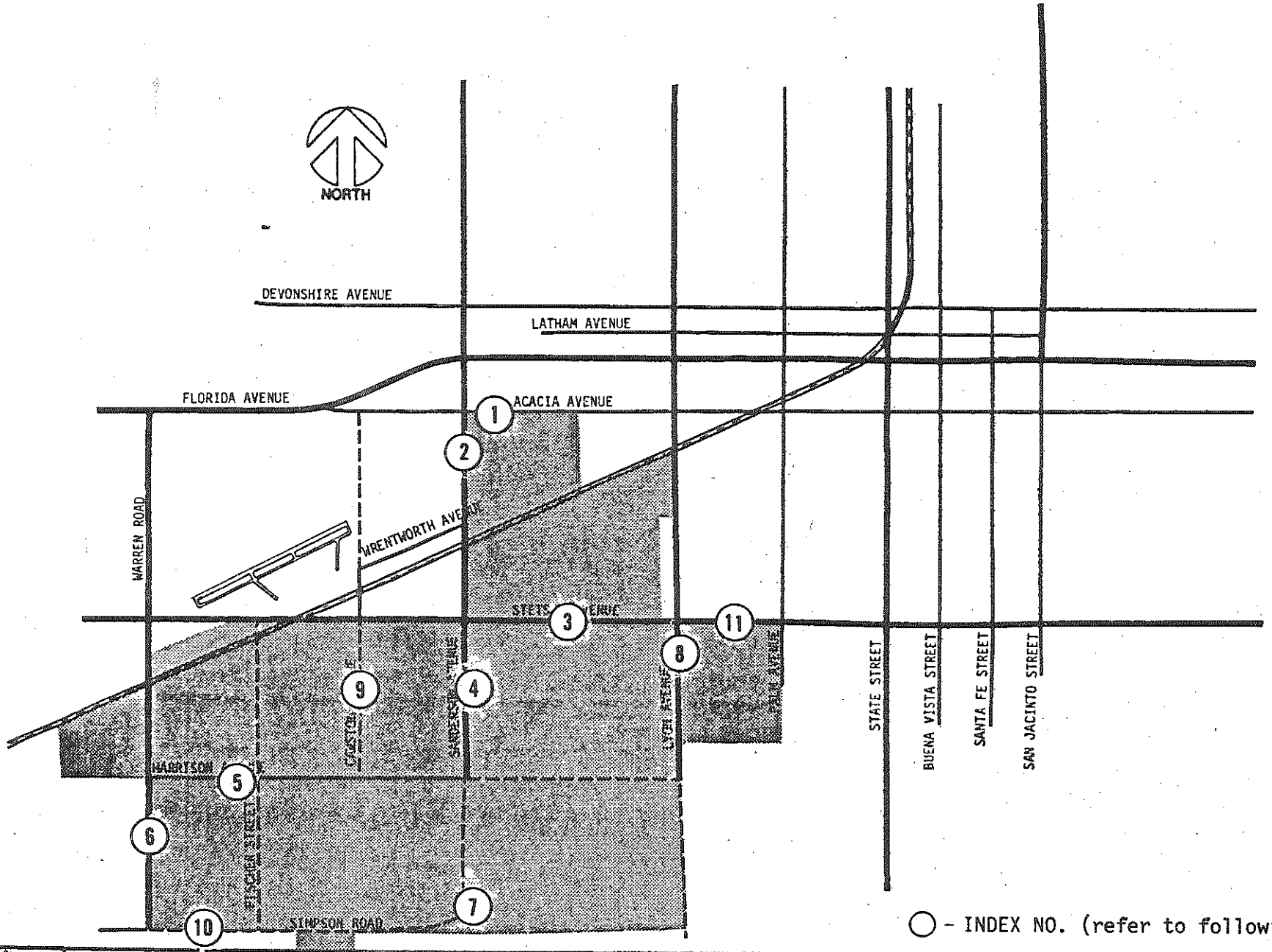
2) On days when fire bomber activity is taking place, the L_{dn} will be considerably higher than the average annual condition. It is possible that residents located nearest the 55 Ldn contour line may be annoyed by fire bomber aircraft related noise events.*

Due to the limited amount of train traffic within the City of Hemet, no significant adverse noise impacts are expected within the Southwest Area. However, if industrial growth does occur in the future, and as a result creates a demand for additional rail service, future land use conflicts could result. Therefore, proposed development in the vicinity of the railroad right-of-way should be carefully considered by the City before any "noise sensitive" development is approved.

Highway traffic noise is expected to be the primary noise source within the Southwest Area. Noise levels are expected to increase significantly as more and more people move into the area. In general, highway traffic noise levels will be highest in areas located adjacent to the primary roadways in the study area. Ultrasystems has estimated noise levels within the vicinity of roadway segments as applicable to residential development for Land Use Alternative 1.** Applicable roadway segments are identified in Figure 27 and the results of calculated L_{dn} exposure levels are contained in Table 9.

* Refer to Appendix A, Response to Various Community Noise Levels.

** See Appendix A for Highway Noise Model Assumptions.



○ - INDEX NO. (refer to following table)

Source: ULTRASYSTEMS, INC.

Title: LAND USE ALTERNATIVE 1
NOISE IMPACTED ROADWAY SEGMENTS

27

TABLE 9

CALCULATED L_{dn} EXPOSURE LEVELS

(LAND USE ALTERNATIVE 1)

INDEX NO.	ROADWAY SEGMENT	DISTANCE TO NOISE CONTOURS EXPRESSED IN FEET FROM CENTERLINE OF ROADWAY		
		55 dBA	60 dBA	65 dBA
1	Acacia-East of Sanderson	71	33	15
2	Sanderson-South of Acacia	247	115	53
3	Stetson-East of Sanderson	334	155	72
4	Sanderson-Stetson/Harrison	331	154	71
5	Harrison-East of Warren	46	21	10
6	Warren-South of Harrison	228	106	49
7	Simpson-South of Harrison	312	145	67
8	Lyon-South of Stetson	206	95	44
9	Cawston-Stetson/Harrison	89	41	19
10	Simpson-Warren/Fisher	124	57	27
11	Stetson-Lyon/Palm	363	168	78

The criteria used to assess and prevent adverse highway traffic noise impacts are presented below:

Exterior Environments - Not to exceed L_{dn} of 55 dBA
Interior Environments - Not to exceed L_{dn} of 45 dBA*

Based on the preceeding criteria and the data presented in Table 9, noise mitigations would be necessary in proposed residential areas where the estimated highway noise environment exceeds 55 dBA.

Based on Land Use Alternative 1, development within the planning area is expected to generate an ultimate 57,500 vehicle trip ends per day. The majority of these trips will be oriented towards areas in the City. The result of additional vehicular movement will be a significant unavoidable increase in traffic noise emission levels within the City of Hemet.

Mitigation Measures

The following mitigation measures are recommended:

- Grading and construction activities should not be permitted between the hours of 7 PM and 7 AM, and on Saturday, Sunday, and legal holidays.
- Agricultural property owners within or adjacent to the Southwest Area should limit agricultural operations as much as possible during late evening and early morning hours. Farming equipment which must be operated during the noise sensitive hours should be equipped with adequate and well maintained exhaust mufflers.
- If train operations increase enough to create a significant adverse noise impact, noise mitigation measures should be considered. Land uses such as residences and schools would not be suitable for development at locations immediately adjacent to the railroad right-of-way. Residences which would be located in the general vicinity of the railroad should be screened from railroad noise sources by solid sound barriers such as earthen

* California Administrative Code Title 25. California Noise Insulation Standards. (Assumes a windows-closed condition).
NOTE: An acoustical analysis is required if residential structures are to be located within a noise environment (exterior) of 60 dBA or greater showing that the structure has been designed to meet the 45 dBA interior requirement.

berms or earthen berm/walls. Project design should stress the orientation of structures away from the railroad including windows and other openings.

- A detailed acoustical analysis will be required for residential development located within the 60 dBA noise contour from highway noise sources. The analysis will be required in order to prove that the indoor environment will be reduced to a level of 45 dBA or less*.

- Highway noise mitigation measures such as acoustical site planning and/or the design of earthen berms or berm/wall combinations will be necessary in order to reduce noise to acceptable levels (exterior-55 dBA or less) for residential development within the Southwest Area.

  NOTE: Residential structures can be utilized to attenuate noise through proper acoustical planning. Outdoor areas can be effectively screened from unwanted noise by incorporating the residential structure as a sound barrier. However, if this concept is used to provide an acceptable interior environment, all windows, vents and other normal openings should be oriented away from the highway noise sources.

- Heavy trucks (3 axles or more) are a major source of highway noise. Therefore, limit heavy truck traffic to the following roadway segments (within or adjacent to the Southwest Area):

  - Warren
  - Stetson - Warren/Sanderson
  - Sanderson - Stetson/Acacia

- The mitigation of highway noise outside the Southwest Area may only be practical or economically viable for new rather than existing noise sensitive land uses.

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* Title 25, California Noise Insulation Standards.

Unavoidable Adverse Impacts

Traffic generated by the Southwest Area will create a significant increase in traffic noise levels locally and in the City of Hemet.

4.1.8 Traffic and Circulation

Impact

The traffic impacts that would result from the development of the Southwest Hemet study area would be incremental in nature and would relate to the degree of completion of the areas various development components. However, since a developmental time frame has not been established, this analysis considers the impacts that could be anticipated at the full build out according to the specified alternative. Table 10 presents a traffic generation forecast for the Southwest Hemet study area once fully developed according to Alternative 1. Traffic generation estimates are included for the AM peak hour and PM peak hour as well as 24 Hour volumes for an average weekday. Generation factors included in Table 10 have been taken from studies compiled by Caltrans (California Department of Transportation) and from studies compiled in the Institute of Transportation Engineers Information Report on Trip Generation.

Traffic Generation is expressed in vehicle trip ends where a trip end is a one-way vehicular movement either entering or departing a generating land use. Summation of the vehicle trip ends generated by the various land use components included in the first development alternative for the southwest area, would produce an estimated 57,510 vehicle trip ends per day evenly distributed between inbound and outbound. An estimated 5500 vehicle trip ends would be expected to occur during the AM peak hour (2360 inbound and 3140 outbound) while just under 6600 vehicle trip ends (3740 inbound and 2850 outbound) would be generated during the PM peak hour.

It should be noted that the traffic generation potential listed in trip ends in Table 10 is somewhat higher than the number of vehicles that would physically be added to the adjacent street system. Each vehicle trip has two trip ends, one at the origin of the trip and one at the destination. If all vehicle trips generated within the Southwest Hemet study area had

TABLE 10

TRAFFIC GENERATION FORECAST - Alternative 1

Development	AM Peak Hour			PM Peak Hour			24 Hour
	Inbound	Outbound	Total	Inbound	Outbound	Total	2-Way
Hemet Residential (3350 D.U.) Generation Factor* (T.E./D.U.)**	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	1000	2010	3010	2340	1340	3680	33500
County Residential (1720D.U.) Generation Factor (T.E./D.U.)	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	520	1030	1550	1200	690	1890	17200
Industrial (100 acre) Generation Factor (T.E./D.U.)	8.4	1.0	9.4	2.0	8.2	10.2	68.1
Generated Vehicle Trips	840	100	940	200	820	1020	6810
Total Traffic Generated	2360	3140	5500	3740	2850	6590	57510

*Section 210, Trip Generation, An Informational Report of the Institute of Transportation Engineers, 1976.

**T.E./D.U. = Trip Ends/Dwelling Unit. A trip end is a one-way vehicular movement either entering or leaving the generating land use.

origins or destinations outside the combined study area, the total number of vehicle trip ends generated would equal the total number of vehicle trips produced within the study area. However, a certain percentage of residential units will interact trip wise with each other as well as other uses to be contained within the study area, i.e., any commercial centers, the Seven Hills Golf Course, the Hemet Ryan Airport, and any future industrial development. Therefore, this one-to-one relationship between vehicle trip ends and vehicle trips does not apply. The number of vehicle trips in terms of vehicles physically added to the adjacent street system is somewhat less than the total number of trip ends produced by the various components of the total study area. For the purposes of this analysis therefore, it has been assumed that 25 percent of the estimated vehicle trip ends to be generated by development within the study area would be completely internal to the area.

In addition, a daily traffic generation rate of 10 trip ends per dwelling unit has been used for the projections made in this report. This generation rate is generally associated with single family detached dwelling units. Other residential uses such as multi-family townhouses or condominium units, apartments and mobile home parks typically have lower traffic generation rates. For this reason the the traffic generation forecast listed in Table is considered conservatively high.

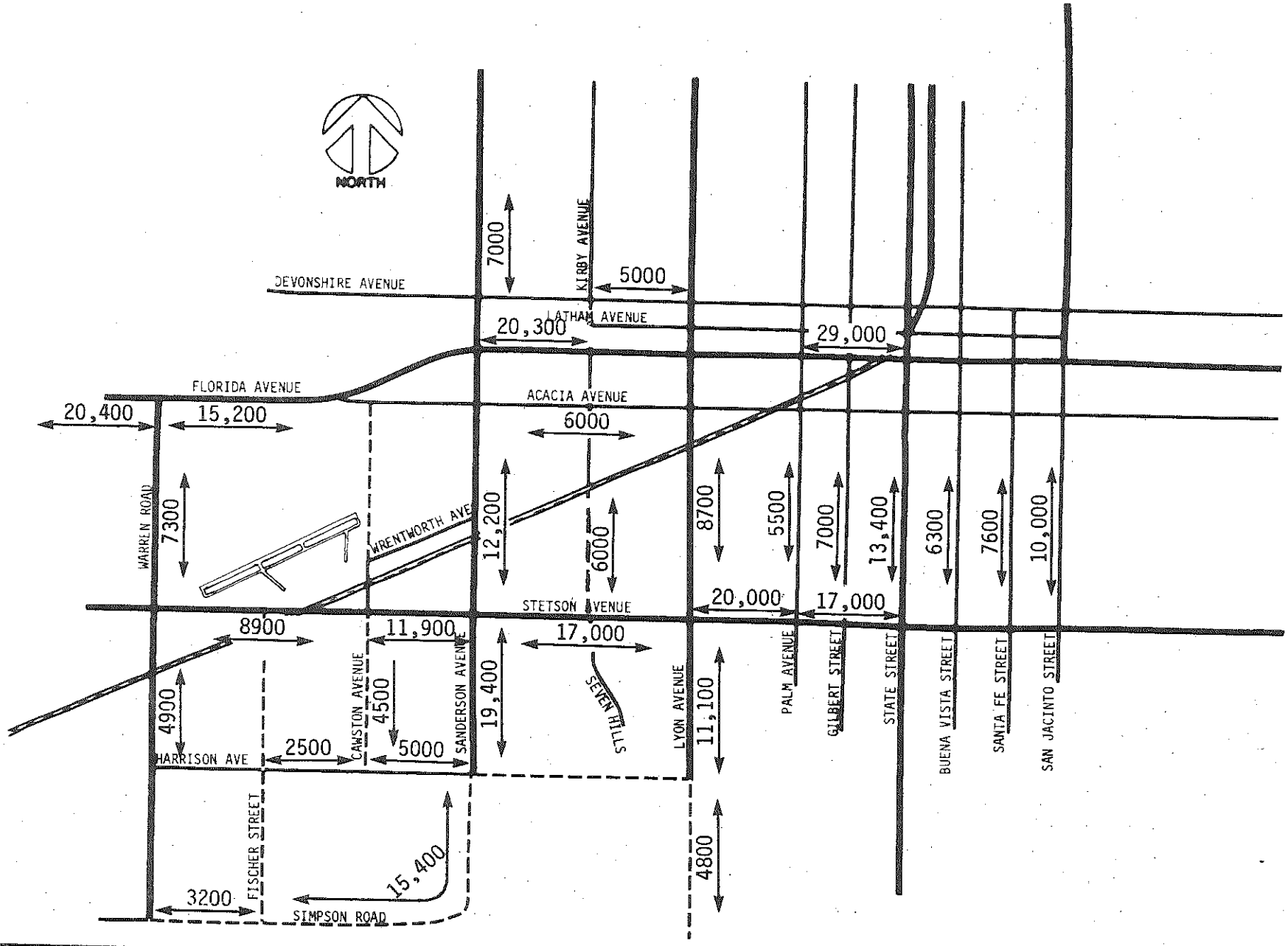
The traffic generation potential associated with the various land uses within the southwest study area has been distributed and assigned on a component by component basis for each land use designation contained within the specified alternative. The current area roadway system and existing travel patterns, the current and projected population and employment distribution, a review of potential development surrounding the study area, and projected roadway expansion as reflected in the current Master Plan of Highways of both the City of Hemet and County of Riverside were factors considered in projecting traffic distribution. As previously mentioned, a percentage of the traffic generated within the study area is expected to be internal to the area itself. The major attraction of the trips generated that would

be external to the study area, would still be expected to be to the north and east of the study area. On this basis, roughly 60 percent of the traffic generated by development within the Southwest Hemet area is expected to be oriented to the north and east of the study area. Fifteen percent is projected to be oriented to the west with the remaining 25 percent completely internal to the study area.

The assignment of the Southwest Hemet study area traffic to various links of the master planned highway system was not capacity restrained in that future total volumes at anyone location were not limited to the capacity associated with the functional classification of that link as shown on the City and County master plans. Figure 28 carries out the distribution and assignment procedure and illustrates the future total traffic volumes on those roadways shown based on anticipated travel desires. The traffic volumes shown in Figure 28 represent a summation of existing roadway volumes and those volumes projected to be added as a result of development in the Southwest Hemet study area. They do not reflect any additional growth in traffic volumes that might occur as a result of development in other areas of Hemet.

As illustrated in Figure 28, the primary traffic impact as a result of development in the Southwest Hemet Study area, would be experienced along Stetson Avenue which would realize a traffic volume increase of roughly 12,000 vehicles per day. This would result in daily traffic volumes on Stetson Avenue of between 17,000 and 20,000 vehicles per day. Sanderson Avenue would also receive a significant increase with daily traffic volumes ranging from 12,200 vehicles per day north of Stetson Avenue to 19,400 vehicles per day south of Stetson Avenue. Simpson Road would be expected to carry approximately 15,400 vehicles per day, while Lyon Avenue is projected to carry over 11,000 vehicles per day south of Stetson Avenue and just under 9000 vehicles per day north of Stetson Avenue.

Kirby Avenue currently ends just south of Acacia Avenue however it will be necessary to complete Kirby Avenue southerly to Stetson Avenue as the southwest area develops. Kirby Avenue, when completed to Stetson Avenue, would provide relief to traffic volumes projected for Sanderson Avenue as well



Source:

Linscott, Law & Greenspan, Inc.

Title:

Daily Traffic Distribution Alternative 1

28

as provide access to that portion of the Southwest Study area it traverses and to the Seven Hills development. As previously mentioned, Lyon Avenue and Palm Avenue run through residential areas (in particular those areas immediately north of Stetson Avenue developed into mobile home lots) that may preclude future roadway widening thereby limiting their respective traffic carrying capabilities. This fact further illustrates the importance of Kirby Avenue to the areas circulation system as future development occurs.

Similarly, Gilbert Street and State Street would become secondary north-south routes for traffic generated and attracted to the Southwest Hemet study area. These two roadways are projected to carry approximately 7000 and 13,400 vehicles per day, respectively. Other impacted roadways and their respective projected traffic volumes are shown on the distribution figure.

Twenty-four hour roadway capacities were estimated based on the master planned cross-sections shown in Figure 18 and on the following assumptions: an ultimate population of between 25,000 and 40,000, a peak hour factor of .85, 5 percent trucks, 10 percent right turns, and a G/C ratio of .50. The resulting capacities that were determined by these assumptions were as follows:

Functional Classification	Capacity
Collector	11,000
Secondary	17,000
Major	20,000
Arterial	21,500

It should be noted that the actual capacities could vary from those calculated above as the area develops and actual traffic characteristics can be determined. Roadway capacity when evaluated on a corridor basis, for instance, often results in a range in capacity values (for example, traffic volumes of between 20,000 and 30,000 vehicles per day are commonly associated with arterial highways). This range depends upon such things as access control, intersection spacing, and signal progression. However, the capacities calculated above are believed to be reasonable and appropriate values for planning purposes.

The calculated roadway capacities above and the projected future roadway volumes shown in Figure 28 were used to determine a recommended circulation system for the various alternatives proposed. Capacity deficiencies and surpluses were balanced among parallel routes to develop a recommended arterial hgihway system. This procedure assumed that the local circulation system would be designed in such a manner so as to more evenly distribute study area traffic to the arterial roadway system for a particular travel orientation. The recommended circulation networks also assumes intersection widening techniques would be implemented to the next highest functional classification where that higher classification would not be justified over an entire roadway link. It has also been assumed that the proposed circulation would be developed so that the various roadway segments would be constructed out of the existing floodway, or in such a manner that access would be maintained should a flood occur.

On this basis then, the following master planned highway cross-sections are recommended for roadways in the Southwest Hemet study area should it develop according to Alternative No. 1.

Roadway	Classification
Sanderson Avenue	Secondary
Stetson Avenue	Arterial
Acacia Avenue	Collector
Harrison Avenue	Collector
Simpson Road	Secondary
Warren Road	Collector/Secondary
Cawston Avenue	Collector
Fischer Street	Collector
Lyon Avenue	Secondary
Kirby Avenue	Collector

To individually calculate the estimated capacity utilization at each intersection within the study area is beyond the scope of planning at the general plan level. Thus, in this report, hypothetical capacities have been utilized and a more refined analysis should be made as the area develops.

Signalization of the major intersections within and immediately adjacent to the Southwest Hemet Study area would undoubtedly be warranted upon completion of the entire development. These intersections would include Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue and Sanderson Avenue and Acacia. However, since traffic signals should be installed only after positive evidence of their need has been demonstrated, it is recommended that specific intersections be evaluated as necessary prior to ultimate occupancy of the areas planned development.

The development of the Southwest Study area according to this alternative would generally impact all transportation facilities in the Hemet area. It is difficult however, to quantify traffic impacts at locations more distant from the study area. This is due to the fact that traffic volumes generated by land development within the area tend to dissipate or "decay" as the distance from the generating source and a particular location under consideration increases. It can reasonably be expected however, that the primary north-south routes between Stetson Avenue and Florida Avenue would receive a significant amount of study area generated traffic. Also, major trip attractors are still expected to be located along Florida AVenue for some time in the near future. Therefore, traffic generated by development within the Southwest Hemet study area, could be expected to further impact traffic conditions along Florida Avenue.

As previously mentioned, the only public transportation service to the area at the present time is provided by a dial-a-ride system. Due to the lack of public transportation to rural areas such as Hemet those residents who do not own there own automobiles are dependent on a relative, friend or neighbor to provide for any transportation needs. When these sources or public transportation systems are unavailable they remain isolated. The Riverside Transit Agency is attempting to alleviate some of the problems which confront many transportation disadvantaged individuals in the County. The development of the southwest area of Hemet may enable public transportation into this area to become more economically feasible, thus enhancing the efforts to improve public transportation facilities.

When specific project site plans for the various components of the southwest area are developed, provisions should be made for adequate off-street parking. General parking demands for several common types of land uses and off-street parking requirements are listed in the Riverside County zoning ordinance and presented in Table 11.

The development of the Southwest Hemet study area according to development Alternative 1 would result in an estimated daily VMT (vehicle miles travelled) increase of roughly 287,500 miles per day.

Mitigation Measures

The following measures are suggested as a means of mitigating potential traffic impacts generated by the development of the Southwest Hemet Study area as proposed herein. The measures listed below would have the affect of improving anticipated traffic conditions with regard to both project related traffic and total area traffic which would result from other future growth in the area.

- The construction and improvement of the following roadways to their recommended master plan cross-section will be required to accommodate the anticipated traffic volumes that are projected from development within the Southwest Hemet study area:

Roadway	Master Plan Cross-Section
Sanderson Avenue	Secondary
Stetson Avenue	Arterial
Acacia Avenue	Collector
Harrison Avenue	Collector
Simpson Road	Secondary
Warren Road	Collector/Secondary
Cawston Avenue	Collector
Fischer Street	Collector
Lyon Avenue	Secondary
Kirby Avenue	Collector

- Construction of all planned local collector streets to the standards set forth in the Riverside County General Plan and the Hemet-San Jacinto General Plan.

TABLE 11

PARKING REQUIREMENTS

TYPE OF LAND USE	SPACES REQUIRED[1]	ORDINANCE 348[2]
Retail Store*	1 per 350 sq.ft. GFA**	1 per 250 sq.ft. GFA
Office Building	1 per 300 sq.ft. GFA	1 per 250 sq.ft. GFA
Restaurant (sit down type)	1 per 4.5 seats	1 per 45 sq.ft. of serving area
Single-Family Dwelling	2 per unit	1 per D.U.
Multi-Family Dwelling	1.75 per unit	1 per D.U.
Shopping Center 30,000-75,000 sq.ft. GFA	7 per 1,000 sq.ft. GFA	1 per 150 sq.ft. GFA

* Not in a shopping center.

** GFA - Gross Floor Area

SOURCE: [1] Traffic Engineering for Small Cities and Counties, Automobile Club of Southern California, p. 11.

[2] Riverside County Zoning Ordinance No. 348, Section 18.12.

- The installation of traffic signals at the following intersections will undoubtedly be warrented. Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue and Sanderson Avenue and Acacia. However, as previously discussed, the installation of traffic signals should be made only after positive identification of their need has been established and it is recommended that these intersections be evaluated as necessary prior to ultimate occupancy of the areas planned development.

- Promote ride-pooling (car-pools/van-pools) with regard to persons employed in any planned commercial and industrial activities. This would have the potential of reducing daily commuter traffic and on-site parking requirements.

- Demand-responsive (dail-a-ride) public transit should be encouraged. Where practical small vans or busses should be used. Provision of a public transit system will reduce potential auto travel, and provide mobility to those residents who are either too young to drive, do not drive, no longer drive, or are not capable of bicycling.

- The feasibility of expanding the Riverside Transit Agency's transportation service in the Hemet area should be considered.

- Control of access to the arterial and major street system as outlined in the Riverside County Subdivision Ordinance No. 460 should be encouraged. Control of access reduces the number of potential traffic conflicts, smoothes out traffic flow and increases traffic capacity.

- Provide sufficient off-street parking to meet anticipated demand for each planned use, taking into account the County zoning ordinances and the potential for overlapping or joint use of parking areas serving such complimentary land uses as may be developed.

- Provide separate bicycle and pedestrian pathways throughout the project as a means of promoting alternative forms of movement. For safety, convenience and efficiency, these systems should be separated from the vehicular traffic system and from one-another.

- Establish land use patterns, intensities and relationships which would reduce vehicle trip making characteristics and promote the use of alternative modes of travel such as bicycles, walking and transit. For example, increased residential densities adjacent to the planned commercial activities and open spaces designed with integral bike paths and pedestrian ways.

Unavoidable Adverse Impacts

Land Use Alternative No. 1 could produce an estimated 57,510 vehicle trip ends per day evenly distributed between inbound and outbound.

4.1.9 Open Space and Conservation

Land Use Alternative No. 1 would reduce the amount of open space in the Southwest Area by over 20 percent. Approximately 1,039 acres of open space will be reclaimed for residential, commercial and industrial land uses. The remaining 1,977 acres will remain in the current agricultural and open space use. Development would be restricted on steep hillside slopes over 25%, consistent with the Hemet Open Space and Conservation Element.

The Salt Creek floodway will remain as open space. Portions of the flood plain may be lost as open space to residential development.

The Southwest corner of the Southwest Area, which is unincorporated County land, is the only part of the project area with an agricultural preserve status. Portions of this agricultural preserve may be developed for residential use upon completion of the interim flood control channel. In addition, a major portion of the site includes Class I and II capability soils, considered prime agricultural land. This land will be lost as residential development of the areas occurs. Agriculture has been of great value to the community, both in terms of economic gains and as a means of preserving open space. The loss of agricultural land is irreversible. The proposed residential development in the Southwest Area may encourage property values to rise on adjacent agricultural property, particularly County land in Diamond Valley to the east and land west of Hemet.

The Open Space and Conservation Element recommends a community park of between 30 and 40 acres to serve Hemet and the developments serving the City. The Southwest Area has a the potential for development of park facilities concurrent with residential development. Using the standard of 2.5 to 3 acres of open space per 1,000 population, this land use alternative could create a need for 22.5 to 27 acres of neighborhood parks.

Mitigation Measures

Open space should be valued as an essential complement to urban living and considered within all future development proposals. Development subdivision practices which foster open space and conservation concepts (such as clustering, zero lot lines and coverage incentives) should be encouraged.

Policies should be formulated to encourage participation in the Williamson Act Preservation Program, granting tax relief to owners of agricultural property who agree not to develop their land for a minimum of 10 years. Additional incentives should be provided for agricultural land owners holding less than 100 acres who are not eligible for preservation status and the economic security it provides.

Unavoidable Adverse Impacts

Land Use Alternative No. 1 would reduce the amount of open space in the Southwest Area by over 20 percent.

4.1.10 Public Services and Utilities

4.1.10.1 Fire Protection

Development resulting from Land Use Alternative No. 1 will impact the City of Hemet Fire Department by requiring additional manpower and equipment. The increased demand on the Department will make it necessary to provide additional stations in the southwest and northeast areas of the City. One station is proposed to be located near the airport industrial area, probably on Stetson Avenue. Another station is proposed to be constructed in the vicinity of Menlo and Sanderson Avenues.* Based on a rate of one firefighter per 1,000 population, Land Use Alternative No. 1 could necessitate the addition of 9 firefighters in the Southwest Area.

Development in the Southwest Area will increase response times and number of calls. New construction that occurs adjacent to existing development in the City is more easily serviced than more remote areas. Developments that encroach upon the flight paths and those surrounding the airport may be subject to aircraft crashes.

Mitigation Measures

New development should be located adjacent to existing developed areas, rather than in remote fringe areas, to minimize the response time. Adequate design features should be incorporated in all new developments.

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* Richard Feuerstein, Assistant Fire Chief, City of Hemet Fire Department.

Unavoidable Adverse Impacts

The increased demand will require additional manpower and equipment.

4.1.10.2 Police Protection

Development resulting from Land Use Alternative No. 1 will impact the City of Hemet Police Department by generating an increased demand for manpower and equipment. At this time, the Police Department has a need for five more officers for traffic enforcement and specialized burglary patrol. Land Use Alternative No. 1 could generate a population growth of 9,390 people in the Southwest Area, thus necessitating a minimum of 13 additional officers, based on a rate of 1.45 officer per 1,000 persons. Crime prevention and traffic control will become more unmanageable if the present trend continues.

Mitigation Measures

New development should be located adjacent to existing developed areas, rather than in remote fringe areas, to minimize the response time. Adequate street and security design features should be incorporated into all new developments.

Unavoidable Adverse Impacts

The increased demand will require additional manpower and equipment.

4.1.10.3 Schools

Land Use Alternative No. 1 would impact the Hemet Unified School District by generating additional students. The school system has no excess capacity; therefore, any new development would require school construction. The 1977-1978 enrollment at Hemet Senior High School exceeded the school's capacity by nearly 80 students. The school system does not have a student generation rate due to the unusual composition of the population of Hemet. Based on the 1975 ratio of 15.4 students per 100 population, this land use alternative could generate 1,432 additional students. This ratio has remained fairly constant since 1975. Overenrollment is expected to continue at a 3 percent annual growth rate. There are no immediate plans or financing provisions for increasing the capacity of schools in the district. In addition, most of the students generated by residential development in the Southwest Area will be located outside the maximum walking distance to associated schools. Therefore, additional bus service will also be required.

Mitigation Measures

Student generation rates are uncertain at this time. SB 201, relating to builder contributions to the school system, may be a means of purchasing relocatable classrooms and putting them on existing sites. However, the cost may be prohibitive under the developer assessment program.

Unavoidable Adverse Impacts

This Land Use Alternative could generate 1,432 additional students, requiring new school construction.

4.1.10.4 Hospital and Emergency Services

It is expected that this land use alternative will require 35 additional beds at the Hemet Valley Hospital, based on a factor of 35 beds per 1,000 people. The hospital is currently operating at near capacity; however, an additional medical-surgical unit of 90 beds is expected to be completed by April of 1979. The new unit will accommodate the demands created by this alternative.

Mitigation Measures

The new medical-surgical unit will mitigate the additional demand created by the project.

Unavoidable Adverse Impacts

This alternative will increase demand for hospital and emergency services.

4.1.10.5 Electricity

Electrical service will be provided to the development proposed by Land Use Alternative No. 1 through extension of the electrical distribution facilities located along the south side of Stetson Avenue. This Land Use Alternative is expected to generate a peak demand of 69,266 kilowatts, based on the following demand rates:

Single-family	10 KW/DU* X 3474 DU =	34,740 KW
Multiple-family	5 KW/DU* X 3049 DU =	15,245 KW
Mobile Home	5 KW/DU* X 1409 DU =	7,045 KW
Commercial	7 watts/Sq. Ft.* X 95,150 Sq. Ft. =	666 KW
Industrial	4 watts/Sq. Ft.* X 2,892,384 Sq. Ft. =	11,570 KW
TOTAL		69,266 KW

Electrical consumption represents the use of a non-renewable natural resource, e.g., low sulfur fuel oil. The use may be considered an irreversible impact from the proposed development. The extension of additional electric service to the Southwest Area may be considered growth-inducing.

The major fuel used in Southern California Edison Company's generating facilities is low sulfur fuel oil. The inventory of low sulfur fuel oil, combined with contractual agreements for delivery and electric customers' conservation effects, is expected to allow Southern California Edison Company to meet peak demand through 1977. Ability of Southern California Edison Company to meet peak demand periods after 1980 is dependent upon plans to proceed with construction of new generating facilities, since total system demand is expected to increase annually.**

Mitigation Measures

Energy conservation measures should be required to minimize the loss of low sulfur fuel oil, a non-renewable natural resource. Southern California Edison Company should be consulted to incorporate energy conservation measures into future development proposals.

Generally, energy conservation measures include application of solar energy for water heating, use of energy-efficient appliances, building insulation, and energy conserving design of common facilities. Refer to Section 4.1.11 regarding energy mitigation measures.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for electrical distribution lines and service.

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* Ultrasystems Planning Factors.
** H. E. Ashford, District Manager, Southern California Edison Company.

4.1.10.6 Gas

The Southern California Gas Company will provide service to the Southwest Area through extension of the gas supply line located in Florida Avenue. The existing supply line system has approximately 20% excess capacity over present requirements, a capacity for 7,000 people.* Land Use Alternative No. 1 could generate 9,390 people, thereby exceeding the current capacity of the service system. This land use alternative is expected to consume 55.4 X 10^6 cubic feet of gas per month, based on the following consumption rates:

Single-family	9,125 cu.ft/DU/Mon** X 3,474 DU =	31.7 X 10^6 cu.ft/Mon
Multiple-family	5,330 cu.ft/DU/Mon** X 3,049 DU =	16.3 X 10^6 cu.ft/Mon
Mobile Home	5,000 cu.ft/DU/Mon** X 1,409 DU =	7.1 X 10^6 cu.ft/Mon
Commercial	3.5 cu.ft./sq.ft./Mon** X 95,150 Sq.Ft. =	.33 X 10^6 cu.ft/Mon
Industrial	3.3 cu.ft./sq.ft./Mon** X 2,892,384 Sq. Ft. =	.01 X 10^6 cu.ft/Mon
TOTAL		55.4 X 10^6 cu.ft/Mon

The local distribution systems will require expanding. The timing and location of future reinforcements will depend on the actual growth rate and pattern. As a public utility, the Southern California Gas Company is regulated by the California Public Utilities Commission. They are also affected by actions of federal regulatory agencies. Should these agencies make any policy or rule changes that affect gas supply or conditions under which service is available, gas service would be provided to the area in accordance with the revised rules.

Mitigation Measures

Energy conservation measures should be required to minimize the loss of a valuable, non-renewable natural resource. Consultation should be made with the Southern California Gas Company to implement conservation measures. Possible energy conservation measures include application of solar energy for water heating, use of energy efficient appliances, building insulation and energy conserving design. Refer to Section 4.1.11 regarding energy mitigation measures.

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* R. C. Wright, Distribution Planning Supervisor, Southern California Gas Company.
** City of Los Angeles, EIR Manual for Private Projects, 1975. Updated, 1976.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for natural gas and distribution lines.

4.1.10.7 Water

The Eastern Municipal Water District (E.M.W.D.) will provide domestic water to the project through extension of existing service lines in the Southwest Area. The specific capacity of the system could not be quantified a detailed study, but E.M.W.D. indicated that the distribution system was probably operating near capacity. At present, 75 percent of the water supplied by E.M.W.D. is sold for agricultural use. Domestic use has the primary claim to the imported Colorado River water supply of E.M.W.D. and the Metropolitan Water District of Southern California. In the event of a serious water problem, the Metropolitan Water District of Southern California has a formula for the allocation of the water it imports.*

The transition of the Southwest Area from irrigated agriculture to domestic use will not require appreciably more water than is currently being used.

Water consumption for Land Use Alternative 1 is estimated to be 40,098,692 gallons/month, based on actual City water use as follows:**

Single-family	6,308 gal/DU/Mon X	3474 DU =	21,913,992 gal/Mon
Multiple-family	4,313 gal/DU/Mon X	3049 DU =	12,150,337 gal/Mon
Mobile Home	3,435 gal/DU/Mon X	1409 DU =	4,839,915 gal/Mon
Commercial	855 gal/CU/Mon X	48 CU =	41,040 gal/Mon
Industrial	1,088 gal/IU/Mon X	141 IU =	153,408 gal/Mon
TOTAL			40,098,692 gal/Mon

Impacts from the project upon water quality will be due to sewage generated by project residents.*** Reclaimed wastewater is used for irrigation water and percolates through the soil to the groundwater level. Total dissolved solids are not reduced as the water percolates through the soi. Nitrates may be a problem.**** Groundwater quality is monitored, and E.M.W.D. is working with

* James H. Bunts, Jr., Eastern Municipal Water District.
** "Fiscal Impact Analysis of Southwest Area", Ultrasystems.
*** Kevin Kozad, Eastern Municipal Water District.
**** Ibid.,.

the Regional Water Quality Control Board on a long-term solution to water quality problems.

Mitigation Measures

Efforts toward water conservation should be made. Possible measures include:

- Landscape watering during early morning hours or during the evening to reduce water loss from evaporation.
- Selection of drought tolerant plants in landscaping.
- Use of plumbing fixtures which will reduce water loss or consumption.

Unavoidable Adverse Impact

This alternative will generate an increased demand for domestic water.

4.1.10.8 Sewage

Sewage collection and treatment will be provided to the proposed land uses, through extension of existing City and Eastern Municipal Water District (E.M.W.D.) facilities. The Hemet-San Jacinto Regional Water Reclamation Facility has a present capacity of 5 MGD, leaving an unused capacity of 1.5 MGD. The 21-inch main sewer line in Stetson Avenue has a 3 MGD capacity, leaving an unused capacity of 2.75 MGD. Land Use Alternative No. 1 is expected to generate 3.8 MGD based on the following generation rates:*

Residential 100 gal/person/day X 9,390 people =	939,000 gal/day
Commercial 100 gal/1,000 sq.ft./day X 95,150 sq.ft. =	9,515 gal/day
Industrial 100 gal/1,000 sq.ft./day X 2,892,384 sq.ft. =	2,892,384 gal/day
TOTAL	3,840,899 gal/day

The proposed land use alternative will impact the E.M.W.D. facilities by generating sewage in excess of the existing system capacities. A sewage treatment plant is planned for the Winchester area to serve the Southwest Area and the southern part of the Valley, although a date is not available for the construction of this plant.

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* Ultrasystems Planning Factors.

4.1.10.9 Telephone

Telephone service will be available to serve the proposed land uses, through extension of existing distribution lines. The proposed land uses will not cause a significant impact on the plans of the telephone company for providing service to the area, provided that growth occurs in increments.

Mitigation Measures

No mitigation measures are proposed.

Unavoidable Adverse Impacts

The proposed land use alternative will result in increased demand for telephone services.

4.1.10.10 Solid Waste

Refuse collection services will be provided by the City of Hemet. Refuse collection is mandatory at a frequency of two times per week.

On-site generation of solid waste resulting from Land Use Alternative 1 is estimated to be 83,226 pounds per day or 41.6 tons, based on the following generation rates:*

Residential	2.5 lb/person/day X 9,390 persons =	23,475 lb/day
Commercial	2 lb/day/100 sq. ft. x 95,150 sq.ft. =	1,903 lb/day
Industrial	2 lb/day/100 sq. ft. X 2,892 sq.ft. =	57,848 lb/day
TOTAL		83,226 lb/day

The two landfill sites serving the Southwest Area will be impacted by the solid waste generated; however, the life of the landfills are projected beyond the year 2000.

Mitigation Measures

Separation of wastes at the source could be encouraged to facilitate resource reclamation and recycling efforts.

Unavoidable Adverse Impacts

This alternative will result in an increased burden upon landfill sites.

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* Riverside County Waste Disposal Division.

4.1.11 Energy

Implementation of the proposed land uses will result in consumption of non-renewable energy resources, both in the short-term and in the long-term.

Short-term impacts include use of non-renewable energy resources during the construction phase of the proposed project. Fossil fuels will be used to operate construction machinery as well as to transport workers to and from the project site. Since construction materials themselves have required the consumption of energy for their production, use of construction materials also represent consumption of energy resources.

Long-term impacts due to project implementation include consumption of gas and electricity for heating, cooking and water heating (see section regarding Public Services and Utilities). Long-term impacts also include the consumption of gasoline.

The amount of fossil fuels burned for production of electricity to serve the project can be estimated, as can the amount of natural gas burned. Residents of the proposed project are estimated to consume 8,959,686 kwh/month or 107,520,000 kwh/year. Using the formula below it has been calculated that an estimated 7,388,070 gallons of low sulfur fuel oil is necessary to generate the required electric power.

$$\frac{107{,}520{,}000 \text{ kwh}}{\text{year}} \times \frac{10{,}387 \text{ BTU}}{\text{kwh}} \times \frac{\text{lb.}}{19{,}000 \text{ BTU}} \times \frac{\text{gal.}}{7.956 \text{ lb.}}$$

$$= 7{,}388{,}070 \text{ gallons/year}$$

Natural gas combustion has been estimated at 55.4×10^6 cubic feet per month.

Mitigation Measures

Energy Conservation. The commercial and industrial buildings in the project area should be designed for optimum energy-efficiency in accordance with Energy Conservation Standards for New Non-Residential Buildings* adopted by the State of California Energy Commission on February 5, 1976.

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* Energy Conservation Standards for New Non-Residential Buildings. Regulations establishing energy conservation standards for new non-residential buildings, adopted by the State Energy Resources Conservation and Development Commission pursuant to Sections 19878-19878.8 of the Health and Safety Code and Section 25402(a) of the Public Resources Code are contained in California Administrative Code, Title 24, Part 6, Division T20, Chapter 2, Subchapter 4, Article 2, Sections T20-1450 to T20-1550.

The new regulations prescribe energy conservation standards for non-residential buildings in California. Specifically, the regulations include energy saving designs for roof, wall, and floor installations, and also contain lighting, heating and air conditioning and hot water supply specification standards. The regulations encourage the use of solar and wind power and other non-depleting energy sources. They offer builders the option of utilizing any building design that consumes less energy than the standard design described in the regulations. The regulations will be enforced by local building officials through the permit process.

Energy consumption in non-residential buildings is determined by interior heating and cooling requirements. The major climate influence in the Hemet area is that of the Continental Air Mass, with the ocean determining the climate no more than 15 percent of the time. Two climates occur within the Hemet Valley area. Cold air basins are formed in the valley, where the project site is located.

The overall climate in the San Jacinto area is defined as semi-arid. Yearly rainfall averages 12.81 inches. On the average nine inches, or seventy percent of the total, falls in the four months, December through March. According to State Climatologist, the average temperature in the area over a period of a year is 62.4^{o}. The average high is nearly 99° in July and the low is 34.5^{o} in January. The prevailing winds are from the southwest and, according to the Riverside County Department of Development, the mean hourly speed is nineteen miles per hour.

The State Energy Resources Conservation and Development Commission has adopted regulations establishing energy conservation standards for new residential buildings. These regulations took effect July 1, 1978 after which no new residential building permits may be issued unless the building design is in compliance with the new standards. The Energy Commission has developed a Residential Energy Conservation Manual to assist designers, builders, building officials and contractors in interpreting and implementing the new standards. Provisions for life cycle cost comparison of electric, natural gas, and solar space and water heating systems are included in the standards.

The Energy Commission has also adopted energy conservation standards covering new appliances. In accordance with these standards, no new appliance manufactured after the effective dates provided in the standards may be sold in California unless certified by the manufacturer to be in compliance with the new standards. The appliances covered under the standards include gas fired, forced air control furnaces, gas cooking appliances, gas clothes dryers, room and central air conditioners, refrigerators and freezers, and gas hot water heaters.

Unavoidable Adverse Impacts

Implementation of this land use alternative will result in consumption of non-renewable energy resources, both in the short-term and long-term.

4.2 Land Use Alternative No. 2 - Impacts and Measures Which May Mitigate or Enhance Impacts

Summary of Land Use Alternative No. 2

Land Use Alternative No. 2., as shown in Figure 29, moderately limits growth in the Southwest Area through the following assumptions:

1) Induces a change in the existing Noise Element by allowing residential development within the 55 Ldn noise contour of Hemet-Ryan Airport.

2) Residential development restricted within the floodway. Development within the Flood Plain must be protected according to the Flood Insurance Program.

3) Restricts development on steep hillside slopes.

4) Maximum growth of 19,890 people on 1,989 acres suitable for residential development. Gross densities of 4.1-6.1 people/acre and 2.2-3.2 dwelling units/acre allowed.

5) Includes 88 acres of industrial and 23 acres of commercial land uses.

6) Open space or agricultural land limited to 45 percent of the area.

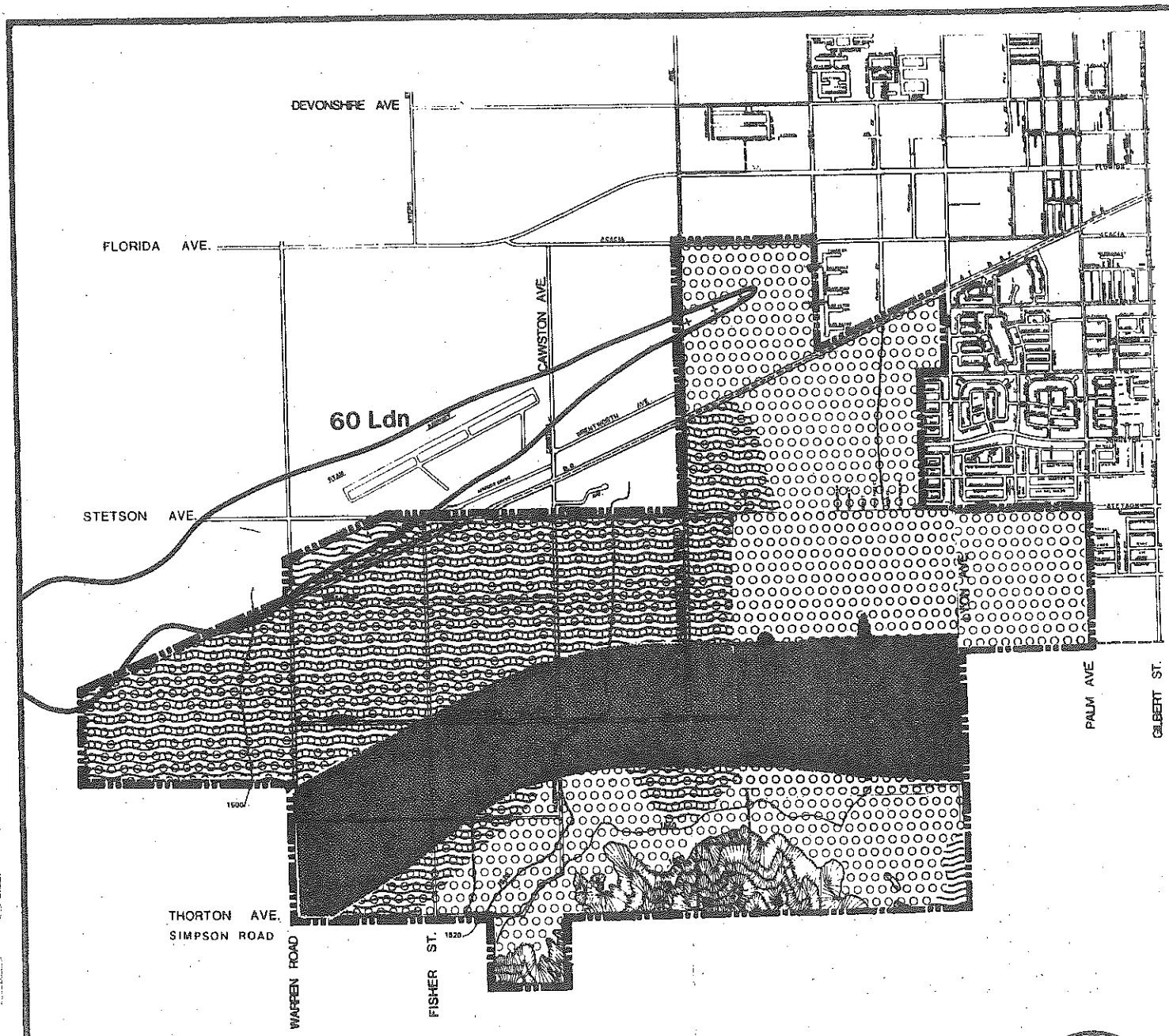
7) Would probably not encourage redevelopment of existing City areas until 9,000 to 16,000 people were generated.

8) May not provide necessary protection of the airport from encroachment and may not provide residential development with adequate protection from airport noise.

4.2.1 Land Use

Zoning

Land Use Alternative No. 2 would require zone changes in portions of the existing Residential Agriculture zone to allow for the increased residential densities proposed. Residential land use areas would be extended by allowing residential development outside the 60 Ldn noise contour of



60 Ldn NOISE CONTOUR

FLOOD PLAIN 100-YEAR INUNDATION

FLOODWAY

NON-RESIDENTIAL USES AS PER FLOOD INSURANCE PROGRAM

NON-RESIDENTIAL USES

RESIDENTIAL USES AS PER FLOOD INSURANCE PROGRAM

RESIDENTIAL USES AVG. 5.4 DU/ACRE

0' 3000' 6000'

NORTH

Source: ULTRASYSTEMS INC.

Title: ALTERNATIVE 2 LAND USE MAP

29

Hemet-Ryan Airport. No residential development would be allowed within the floodway. Development would also be restricted on steep hillside slopes. Zoning designations would have to reflect these land use constraints. The existing zoning allows a maximum population of 7,500 people. This alternative could generate population growth of 16,700 people in Hemet and 3,190 people in the County, or a total of 19,890 people in the Southwest Area.

General Plan

Land Use Alternative No. 2 will deviate from the existing General Plan by allowing population growth in the Southwest Area. This plan moderately limits potential growth in the Southwest Area by providing 1,670 acres of land suitable for residential development in Hemet and 319 acres suitable for residential development in the County. Maximum gross densities allowed would be 4.1 - 6.1 people/acre and 2.2 - 3.2 dwelling units per acre. The current General Plan requires a 2 acre minimum lot size with an allowable density of one dwelling unit per two acres. This plan accommodates 88 acres of industrial and 23 acres of commercial land uses.

This alternative will require a change in the existing Noise Element of the General Plan by restricting residential development within the 60 Ldn noise contour of Hemet-Ryan Airport. This change in the Noise Element will not provide the airport with protection from encroachment and incompatible uses. Within the 60 Ldn noise contour, less land will be available for industrial and agricultural uses. This alternative deviates from the Hemet-Ryan Land Use Plan which permits low intensity residential uses (0-.4 DU/AC) within the 55 Ldn noise contour, provided that average interior noise levels will not exceed 45 dB.

Due to the reduced land use constraints, more land will be available for residential development. Open space and agricultural land uses will be reduced to 45% percent of the Southwest Area. By moderately limiting the growth capacity of the Southwest Area, redevelopment and infill at existing developed areas in Hemet would not be encouraged until over 9,000 additional people were generated. This alternative could accommodate in the Southwest Area, all of the growth projected for the City for the 1990 SCAG projection and the 8% growth projection. By the year 2000, the SCAG projection could be accommodated but not the 8% projection. In accordance with the Open Space

and Conservation Element, the steep hillside slopes will be preserved as a scenic resource.

Mitigation Measures

The effects of the increase in density could be mitigated to some extent by the use of multiple and cluster housing which provides increased open space.

There should be early coordination between Riverside County, LAFCO, and the City of Hemet to assure that future development of unincorporated area surrounding Hemet either be annexed into the City or conform with the Hemet General Plan. This coordination between these jurisdictions will provide the City with necessary planning controls, mitigating incompatible land uses and conflicting development standards.

Unavoidable Adverse Impacts

Open space will be reduced to 45% of the Southwest Area. Approximately 1,403 acres of prime agricultural land will be lost.

4.2.2 Archaeology

Proposed construction related activities could constitute adverse impacts to the archaeological resources discovered at the RIV-1162 site. In addition, resources may be present on unsurveyed portions of the Southwest Area and will also be subject to destruction. The old cemetary on Stetson Avenue is not expected to be impacted by the project. Once approved, new construction in the Southwest Area could then add pressure to develop adjacent areas east and northwest of the site where archaeological findings have appeared and areas of Indian activity have been recorded. The entire Page Ranch property and the Sundberg property at Stetson and Cawston have been surveyed by a qualified archaeologist. These properties do not contain archaeological resources.

Mitigation Measures

The RIV-1162 archaeological site should be resurveyed for collection of any surface debris. Based on these findings, a final report should be

prepared to provide mitigation measures and recommendations. In addition, future development sites must be surveyed for archaeological resources and mitigation measures recommended on the basis of future finds.

Unavoidable Adverse Impacts

Possible destruction, impairment or removal of artifacts and features.

4.2.3 Vegetation and Wildlife

Biological resources in the Southwest Area have previously been disturbed by agricultural uses. However, the project will impact the existing vegetation and wildlife on the site by construction related clearing of vegetation and alteration of topography during site preparation. The presence of structures, roads and human activity will also impact wildlife after construction. The project will result in the dislocation or destruction of existing vegetation and wildlife species on the site.

Approximately 45% of the Southwest Area will be preserved as open space or agricultural uses. However, even the remaining open space areas will be disturbed by the adjacent construction and resident activities. Landscaping will result in the introduction of plant species not present now and may attract animals that are now infrequent or absent. Watering and fertilizing of lawns will allow new species of plants to grow in areas adjacent to the lawns. The presence of structures and fences will restrict the movement of coyotes, rabbits and other mammals and amphibians.

Mitigation Measures

The proposed preservation of 45% of the site for open space and agricultural uses will somewhat mitigate the impact upon vegetation and wildlife. The natural and undisturbed areas will provide a habitat for wildlife to relocate. Biological resources surveys, prior to development would provide assurance that no rare or endangered plant and wildlife species will be disturbed.

Unavoidable Adverse Impacts

Existing vegetation and wildlife species in the Southwest Area will be dislocated or destroyed.

4.2.4 Climate and Air Quality

Short-term Impacts

The construction phase of developments associated with the project will produce two sources of air pollution emissions. These are exhaust emissions from construction and grading equipment and dust generated as a result of earth movement and equipment traffic over dust ladden roads. The dust emissions may cause a nuisance to any persons who reside or park motor vehicles in the vicinity of the project. However, the emissions will be of short-term duration.

Long-term Impacts

Long-term impacts associated with the project consist of emissions generated by the following sources:

Stationary	Mobile
Off-site generation of electricity for project On-site use of natural gas for cooking, space heating, and water heating.	Motor vehicles

Stationary Sources

Stationary on-site emissions from natural gas combustion associated with the project are presented in Table 12. As shown in the Table the contribution of project on-site stationary emissions to the total emissions projected for the project area is nearly negligible.

The stationary emissions resulting from the project electrical energy demand will occur off-site at electrical power generating plants (nuclear, oil, and hydroelectric) located throughout the utilities generating network. The total emissions due to the generation of electricity for this project are given in Table 13 assuming the power is provided by an oil burning power plant.

Mobile Sources

An estimate of the total motor vehicle emissions generated by traffic associated with the proposed project is shown in Table 14. As indicated in the Table the average contribution of project motor vehicle emissions to the total projected emissions for Riverside County for the year 1995 is about 1.0 percent

TABLE 12

LAND USE ALTERNATIVE NO. 2

EMISSIONS FROM USE OF NATURAL GAS (ON-SITE)

POLLUTANT	EMISSION FACTOR* LBS/1000 FT^3	PROJECT EMISSIONS** LBS/DAY	TOTAL 1995 EMISSIONS FOR RIVERSIDE COUNTY*** TONS/DAY	PERCENT OF TOTAL COUNTY EMISSIONS
Carbon Monoxide	Negl	Negl	203	Negl
Total Hydrocarbons	Negl	Negl	40	Negl
Nitrogen Oxides	0.116	521	48	0.5
Sulfur Oxides	Negl	Negl	6	Negl
Particulates	0.018	81	29	0.1
TOTAL (Average)	--	602	326	(negl)

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.

** Assumes 134.7 million cubic feet of gas/month.

*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

Negl = Negligible

TABLE 13

LAND USE ALTERNATIVE NO. 2

EMISSIONS ASSOCIATED WITH ELECTRICITY GENERATION (OFF-SITE)

POLLUTANT	EMISSION FACTOR* LBS/1000 KWH	PROJECT EMISSIONS** POUNDS/DAY
Carbon Monoxide	0.2	100
Total Hydrocarbons	0.18	90
Nitrogen Oxides	2.3	1,145
Sulfur Oxides	2.6	1,295
Particulates	0.401	199
TOTAL	--	2,829

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.

** Assumes 14.95 million KWH/month.

TABLE 14
ESTIMATED MOTOR VEHICLE EMISSIONS ASSOCIATED
WITH LAND USE ALTERNATIVE NO. 2

POLLUTANT	EMISSION* FACTOR (GRAMS/MILE)	ESTIMATED EMISSIONS** (LBS/DAY)	TOTAL 1995 EMISSIONS FOR RIVERSIDE COUNTY TONS/DAY***	PERCENT OF TOTAL COUNTY EMISSIONS
Carbon Monoxide	3.8	4,500	203	1.1
Nitrogen Oxides	0.7	829	48	0.9
Hydrocarbons	0.5	592	40	0.7
Sulfur Oxides	0.1	118	6	1.0
Particulates	0.3	355	29	0.6
TOTAL (Average)	--	6,394	326	(1.0)

* 1995 Emission Factors, Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.
** Assumes 537,750 vehicle miles traveled.
*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

upon project completion.

Total Emissions

The total pollutant emissions associated with the project are presented in Table 15.

Mitigation Measures

1. Normal wetting procedures should be followed during the site grading operations to reduce dust emissions.

2. The Southern California Association of Governments (SCAG) and South Coast Air Quality Management District are currently preparing in cooperation with City and County governments an Air Quality Management Plan (AQMP) designed to achieve and maintain Federal and State air quality standards within the South Coast Air Basin. The AQMP is to be submitted for approval to the State Air Resources Board by January 1979 prior to submittal to EPA as a revision to the State's Implementation Plan. The AQMP is to identify the need for further control of stationary and mobile sources, alternate transportation strategies, and measures to reduce adverse air quality impacts associated with further growth and development. The proposed project should be reviewed for consistency with the objectives of the AQMP if finalized prior to project approval.

3. Provide for convenient bus stop locations.

Unavoidable Adverse Impacts

There will be additional emissions emitted in the southeastern portion of the South Coast Air Basin. These emissions will result in an incremental decrease in the quality of the air.

TABLE 15
LAND USE ALTERNATIVE NO. 2
ESIMATED TOTAL EMISSIONS

POLLUTANT	TOTAL EMISSIONS LBS/DAY
Carbon Monoxide	4,600
Total Hydrocarbons	682
Nitrogen Oxides	2,495
Sulfur Oxides	1,413
Particulates	635
TOTAL	9,825

4.2.5 Geology and Soils

Development on the flat alluvial valley area will result in only slight immediate impact as development will be phased over many years. Development within the floodplain must be protected in accordance with the Flood Insurance Program which requires that finish floor elevations on all construction in the floodplain are 18 inches above the 100 year flood level. This grading requirement would result in approximately 2 to 3 feet of fill over approximately 1200 acres of developable land.

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone. The Southwest Area is about 2 miles from the San Jacinto Fault Zone and is underlain by alluvium of intermediate thickness. Earthquake shaking is expected to be strong to severe as a result of movement on any one of several faults within the San Jacinto Fault Zone. Settlement of soils due to ground-shaking could pose a major hazard, especially in areas of fill. Slippage and landslide could possibly occur in the Domenigoni Mountains. The "Land Use/Risk Matrix" in the City of Hemet Seismic Safety and Public Safety General Plan Elements (1976) indicates that light industrial, low-density residential, warehousing and park uses are "provisionally suitable" for most of this area. The increased residential densities proposed would expose a greater population to the risk of human and structural loss.

Mitigation Measures

Engineering geologic investigations should be required for all new construction within the Southwest Area. Construction according to the Earthquake Regulations of the Uniform Building Code and recommendations of a qualified structural engineer should mitigate the risk of human and structural loss.

Unavoidable Adverse Impacts

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone. The landform will be altered by grading for structures and flood control improvements.

4.2.6 Hydrology

Under this alternative land use plan, residential development would not be permitted within the floodway, which includes approximately 519 acres. As previously shown on the Floodway and Flood Plain maps, Figure 12, approximately 90 percent of the Southwest Area is within a 100-year flood plain. Development within the flood plain will be permitted according to the standards set forth in the Federal Flood Insurance Program. Peak discharges occurring during a 100-year storm from the Stetson Avenue Channel at the Hemet Storm Channel will reach 1,100 cfs from Salt Creek at Lyon Avenue. These channels are not capable of handling these peak discharges and the resultant flooding will occur in over 60% of the Southwest Area.

Mitigation Measures

Both the City and the County have mechanisms to control and guide the development of flood plain areas as proposed in the Land Use, Conservation and Open Space Elements of the County and City General Plans. The Federal Flood Insurance Program will mitigate the flood hazard.

Unavoidable Adverse Impacts

The Southwest Area will be subject to flood hazards.

4.2.7 Noise

Impacts

The noise impacts considered in this section result from the following noise sources:

- GRADING AND CONSTRUCTION EQUIPMENT.
- FARMING EQUIPMENT.
- FUTURE AIRCRAFT OPERATIONS AT HEMET-RYAN AIRPORT.
- TRAIN TRAFFIC.
- FUTURE HIGHWAY TRAFFIC.

Development within the Southwest Area is expected to take place through the year 2000. Due to the phasing of residential development, the following interim noise impacts could be expected:

1) Short-term impacts due to grading and construction activities could occur within noise sensitive uses such as residences and schools which would be in close proximity to construction activities. Noise impacts would be nuisance oriented; i.e., annoyance, speech communication interference, and sleep interference (for individuals who normally sleep during daytime hours). Because construction activity is generally limited to daytime hours, no adverse noise impact would be expected during the nighttime period.

2) Residential uses (receptors) located within the Southwest Area immediately adjacent to agricultural uses could experience adverse noise impacts due to late evening and early morning alfalfa harvesting activities. The primary noise impact would be sleep interference.

In an effort to minimize potential adverse noise impacts associated with aircraft operations at Hemet-Ryan Airport, the City of Hemet has established a set of land use compatability criteria. Under Land Use Alternative 2 , residential development will not be permitted within an environment which has an annual average L_{dn}* of 60 dBA or greater (see Figure 29). In comparison, California State Law specifies a noise standard of CNEL (L_{dn}) $\geq$ 65 dBA.** Therefore, the criteria established by the City of Hemet

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* Refer to Appendix A for an explanation of community noise exposure levels.
** Airport Noise Regulation-California Administrative Code, Title 21, Chapter 2.5, Section 5000-5080.4.

for Land Use Alternative 2 is almost 5 dBA lower than that required by California State Law. The primary reason is that the City of Hemet has established this standard in order to provide quietness as an environmental amenity of future residents.

The contour values illustrated in Figure 14 represent the "annual average" condition predicted for 1986, however, a qualifying statement is in order. Based on the data contained in the background report for Hemet-Ryan Airport noise contours (see Appendix A), the contour map does not necessarily represent the average day condition. Generally, fire bombers only use the airport during emergencies. Calculated as part of the annual average condition, fire bomber related aircraft (the C-119J specifically) tend to skew the results (they are significantly noisier than the general aviation aircraft), and therefore, the following two conditions will exist:

1) On days when fire bomber activity is not taking place, the noise environment would be approximately 5 DBA lower than shown for the average annual condition. This clearly represents an acceptable noise environment for future residents of the Southwest Area.

2) On days when fire bomber activity is taking place, the Ldn will be considerably higher than the average annual condition. It is likely that residents located within the 55 Ldn contour line may be annoyed by fire bomber aircraft related noise events. The City of Hemet could receive noise complaints.*

Due to the limited amount of train traffic within the City of Hemet, no significant adverse noise impacts are expected within the Southwest Area. However, if industrial growth does occur in the future, and as a result creates a demand for additional rail service, future land use conflicts could result. Therefore, proposed development in the vicinity of the railroad right-of-way should be carefully considered by the City before any "noise sensitive" development is approved.

Highway traffic noise is expected to be the primary noise source within the Southwest Area. Noise levels are expected to increase significantly as more and more people move into the area. In general, highway traffic

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* Refer to Appendix A. Response to Various Community Noise Levels.

noise levels will be highest in areas located adjacent to the primary roadways in the study area. Ultrasystems has estimated noise levels within the vicinity of roadway segments as applicable to residential development for Land Use Alternative No. 2.* Applicable roadway segments are identified in Figure 30 and the results of calculated L_{dn} exposure levels are contained in Table 16.

The criteria used to assess and prevent adverse highway traffic noise impacts are presented below:

Exterior Environments - Not to exceed L_{dn} of 55 dBA
Interior Environments - Not to exceed L_{dn} of 45 dBA**

Based on the preceeding criteria and the data presented in Table 16, noise mitigations would be necessary in proposed residential areas where the estimated highway noise environment exceeds 55 dBA.

Based on Land Use Alternative 2, development within the planning area is expected to generate an ultimate 113,400 vehicle trip ends per day. The majority of these trips will be oriented towards areas in the City. The result of additional vehicular movement will be a significant unavoidable increase in traffic noise emission levels within the City of Hemet.

Mitigation Measures

The following mitigation measures are recommended:

- Grading and construction activities should not be permitted between the hours of 7 PM and 7 AM, and on Saturday, Sunday, and legal holidays.
- Agricultural property owners within or adjacent to the Southwest Area should limit agricultural operations as much as possible during late evening and early morning hours. Farming equipment which must be operated during the noise sensitive hours should be equipped with adequate and well maintained exhaust mufflers.

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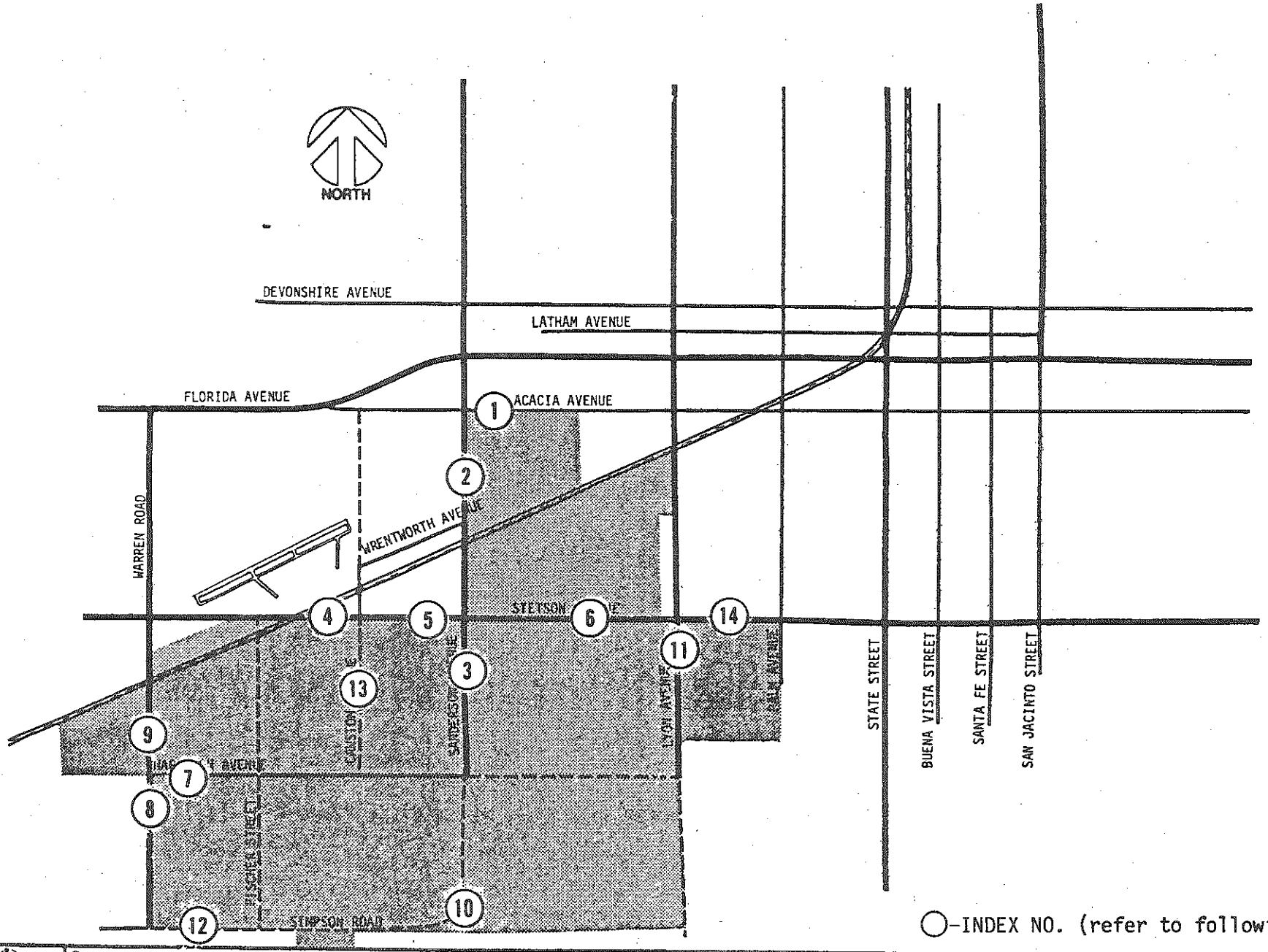
* See Appendix A for Highway Noise Model Assumptions

** California Administrative Code Title 25. California Noise Insulation Standards. (Assumes a windows-closed condition).
NOTE: An acoustical analysis is required if residential structures are to be located within a noise environment (exterior) of 60 dBA or greater showing that the structure has been designed to meet the 45 dBA interior requirement.



○-INDEX NO. (refer to following table)

Source:

ULTRASYSTEMS, INC.

Title:

LAND USE ALTERNATIVE 2
NOISE IMPACTED ROADWAY SEGMENTS

30

TABLE 16

CALCULATED L_{dn} EXPOSURE LEVELS

(LAND USE ALTERNATIVE 2)

INDEX NO.	ROADWAY SEGMENT	DISTANCE TO NOISE CONTOURS EXPRESSED IN FEET FROM CENTERLINE OF ROADWAY		
		55 dBA	60 dBA	65 dBA
1	Acacia-East of Sanderson	152	70	33
2	Sanderson-Stetson/Acacia	351	163	76
3	Sanderson-Stetson/Harrison	313	145	67
4	Stetson-East of Warren	199	92	43
5	Stetson-West of Sanderson	341	158	73
6	Stetson-East of Sanderson	356	165	77
7	Harrison-East of Warren	53	25	11
8	Warren-South of Harrison	214	99	46
9	Warren-North of Harrison	258	120	56
10	Simpson-South of Harrison	293	136	63
11	Lyon-South of Stetson	138	64	30
12	Simpson-Warren/Fisher	124	58	27
13	Cawston-Stetson/Harrison	194	90	42
14	Stetson-Lyon/Palm	395	183	85

- If train operations increase enough to create a significant adverse noise impact, noise mitigation measures should be considered. Land uses such as residences and schools would not be suitable for development at locations immediately adjacent to the railroad right-of-way. Residences which would be located in the general vicinity of the railroad should be screened from railroad noise sources by solid sound barriers such as earthen berms or earthen berm/walls. Project design should stress the orientation of structures away from the railroad including windows and other openings.

- A detailed acoustical analysis will be required for residential development located within the 60 dBA noise contour from highway noise sources. The analysis is required in order to prove that the indoor environment will be reduced to a level of 45 dBA or less*.

- Highway noise mitigation measures such as acoustical site planning and/or the design of earthen berms or berm/wall combinations will be necessary in order to reduce noise to acceptable levels (exterior-55 dBA or less) for residential development within the Southwest Area.

- NOTE: Residential structures can be utilized to attenuate noise through proper acoustical planning. Outdoor areas can be affectively screened from unwanted noise by incorporating the residential structure as a sound barrier. However, if this concept is used to provide an acceptable interior environment, all windows, vents and other normal openings should be oriented away from the highway noise sources.

- Heavy trucks (3 axles or more) are a major source of highway noise. Therefore, limit heavy truck traffic to the following roadway segments (within or adjacent to the Southwest Area):

- Warren
- Stetson-Warren/Airport Drive

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* Title 25, California Noise Insulation Standards.

- The mitigation of highway noise outside the Southwest Area may only be practical or economically viable for new rather than existing noise sensitive land uses.

Unavoidable Adverse Impacts

Traffic generated by the Southwest Area will create a significant increase in traffic noise levels locally and in the City of Hemet.

4.2.8 Traffic and Circulation

Impact

The traffic impacts that would result from the development of the Southwest Hemet study area would be incremental in nature and would relate to the degree of completion of the areas various development components. However, since a developmental time frame has not been established, this analysis considers the impacts that could be anticipated at the full build out according to the specified alternative. Table 17 presents a traffic generation forecast for the Southwest Hemet study area once fully developed according to Alternative 2. Traffic generation estimates are included for the AM peak hour and PM peak hour as well as 24 Hour volumes for an average weekday. Generation factors included in Table 17 have been taken from studies compiled by Caltrans (California Department of Transportation) and from studies compiled in the Institute of Transportation Engineers Information Report on Trip Generation.

Traffic Generation is expressed in vehicle trip ends where a trip end is a one-way vehicular movement either entering or departing a generating land use. Summation of the vehicle trip ends generated by the various land use components included in the second development alternative for the southwest area, would produce an estimated 113,400 vehicle trip ends per day evenly distributed between inbound and outbound. An estimated 10,490 vehicle trip ends would be expected to occur during the AM peak hour (3,960 inbound and 6,530 outbound) while 12,700 vehicle trip ends (7,680 inbound and 5,020 outbound) would be generated during the PM peak hour.

It should be noted that the traffic generation potential listed in trip ends in Table 17 is somewhat higher than the number of vehicles that would physically be added to the adjacent street system. Each vehicle trip has two trip ends, one at the origin of the trip and one at the destination. If all vehicle trips generated within the Southwest Hemet study area had origins or destinations outside the combined study area, the total number of vehicle trip ends generated would equal the total number of vehicle trips produced within the study area. However, a certain percentage of residential units will interact trip wise with each other as well as other uses to be contained within the study area, i.e., any commercial centers the Seven Hills Golf Course, the Hemet Ryan Airport, and any future industrial development.

TABLE 17

TRAFFIC GENERATION FORECAST - ALTERNATIVE 2

Development	AM Peak Hour			PM Peak Hour			24 Hour
	Inbound	Outbound	Total	Inbound	Outbound	Total	2-Way
Hemet Residential(9020D.U.) Generation Factor* (T.E./D.U.)**	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	2700	5410	8110	6300	3610	9910	90200
County Residential(1720D.U.) Generation Factor (T.E./D.U.)	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	520	1030	1550	1200	690	1890	17200
Industrial(88 acre) Generation Factor (T.E./D.U.)	8.4	1.0	9.4	2.0	8.2	10.2	68.1
Generated Vehicle Trips	740	90	830	180	720	900	6000
Total Traffic Generated	2960	6530	10680	7680	5020	12700	113400

*Section 210, Trip Generation, An Informational Report of the Institute of Transportation Engineers, 1976.

**T.E./D.U. = Trip Ends/Dwelling Unit. A trip end is a one-way vehicular movement either entering or leaving the generating land use.

Therefore, this one-to-one relationship between vehicle trip ends and vehicle trips does not apply. The number of vehicle trips in terms of vehicles physically added to the adjacent street system is somewhat less than the total number of trip ends produced by the various components of the total study area. For the purposes of this analysis therefore, it has been assumed that 25 percent of the estimated vehicle trip ends to be generated by development within the study area would be completely internal to the area.

In addition, a daily traffic generation rate of 10 trip ends per dwelling unit has been used for the projections made in this report. This generation rate is generally associated with single family detached dwelling units. Other residential uses such as multi-family townhouses or condominium units, apartments and mobile home parks typically have lower traffic generation rates. For this reason the the traffic generation forecast listed in Table is considered conservatively high.

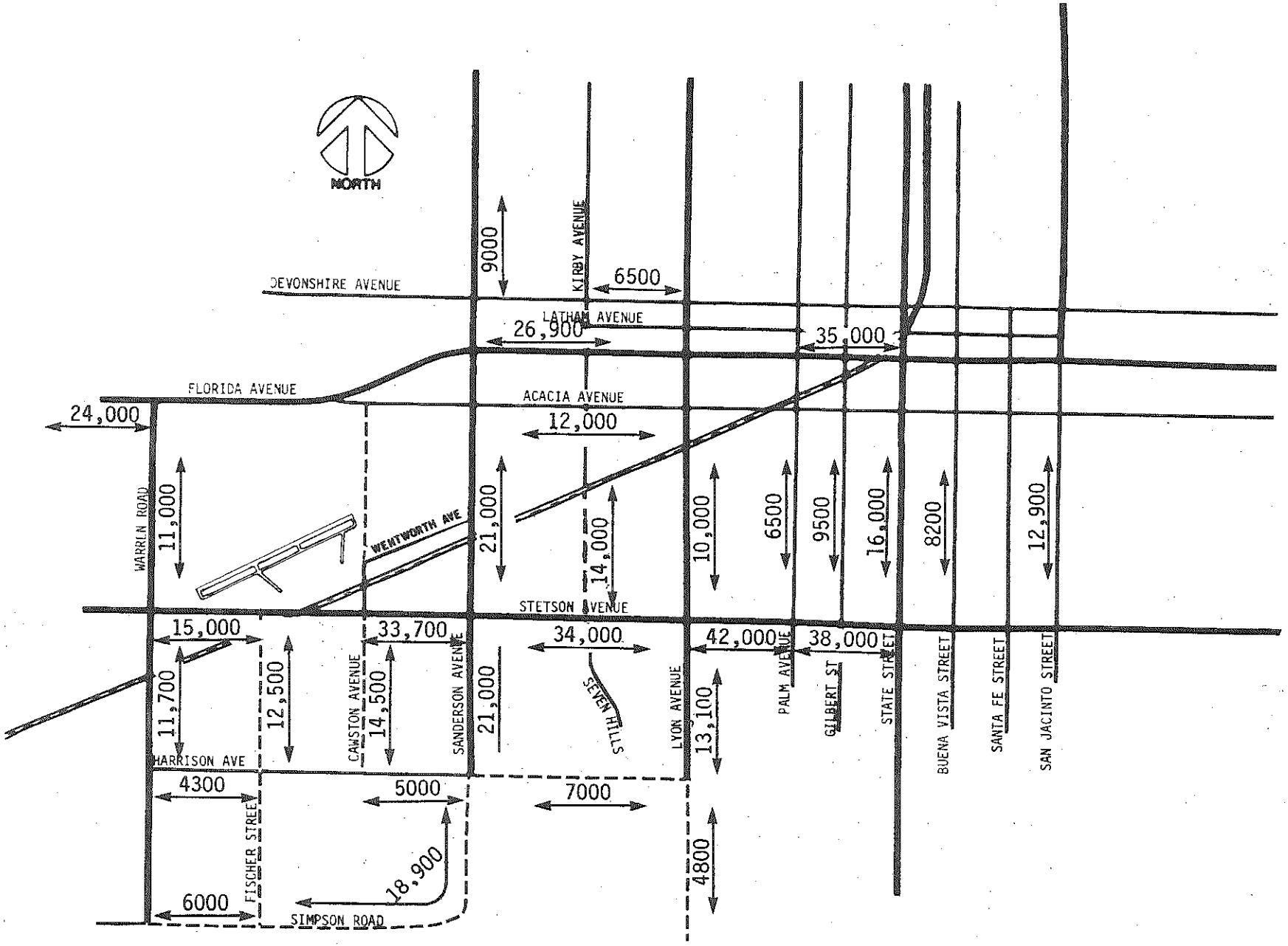
The traffic generation potential associated with the various land uses within the southwest study area has been distributed and assigned on a component by component basis for each land use designation contained within the specified alternative. The current area roadway system and existing travel patterns, the current and projected population and employment distribution, a review of potential development surrounding the study area, and project roadway expansion as reflected in the current Master Plan of Highways of both the City of Hemet and County of Riverside were factors considered in projecting traffic distribution. As previously mentioned, a percentage of the traffic generated within the study area is expected to be internal to the area itself. The major attraction of the trips generated that would be external to the study area, would still be expected to be to the north and east of the study area. On this basis, roughly 60 percent of the traffic generated by development within the Southwest Hemet area is expected to be oriented to the north and east of the study area. Fifteen percent is projected to be oriented to the west with the remaining 25 percent completely internal to the study area.

The assignment of the Southwest Hemet study area traffic to various links of the master planned highway system was not capacity restrained in that future total volumes at anyone location were not limited to the capacity associated with the functional classification of that link as shown on the City and County master plans. Figure 31 carries out the distribution and assignment procedure and illustrates the future total traffic volumes on those roadways shown based on anticipated travel desires. The traffic volumes shown in Figure 31 represent a summation of existing roadway volumes and those volumes projected to be added as a result of development in the Southwest Hemet study area. They do not reflect any additional growth in traffic volumes that might occur as a result of development in other areas of Hemet.

As illustrated in Figure 31, the primary traffic impact as a result of development in the Southwest Hemet Study area, would be experienced along Stetson Avenue which would realize a traffic volume increase of roughly 31,000 vehicles per day. This would result in daily traffic volumes of between 34,000 and 42,000 vehicles per day. Sanderson Avenue would also receive a significant increase with daily traffic volumes totalling 21,000 vehicles per day. Simpson Road would be expected to carry approximately 18,900 vehicles per day, while Lyon Avenue is projected to carry over 13,000 vehicles per day south of Stetson Avenue and roughly 10,000 vehicles per day north of Stetson Avenue.

Kirby Avenue currently ends just south of Acacia Avenue however it will be necessary to complete Kirby Avenue southerly to Stetson Avenue as the southwest area develops. Kirby Avenue, when completed to Stetson Avenue, would provide relief to traffic volumes projected for Sanderson Avenue as well as provide access to that portion of the Southwest Study area it traverses and to the Seven Hills development. As previously mentioned, Lyon Avenue and Palm Avenue run through residential areas (in particular those areas immediately north of Stetson Avenue developed into mobile home lots) that may preclude future roadway widening thereby limiting their respective traffic carrying capabilities. This fact further illustrates the importance of Kirby Avenue to the areas circulation system as future development occurs.

Similarly, Gilbert Street and State Street would become secondary north-south routes for traffic generated and attracted to the Southwest Hemet study area. These two roadways are projected to carry approximately 9560 and 16,000 vehicles per day, respectively. Other impacted roadways and their respective projected traffic volumes are shown on the distribution figure.



Source:

Linscott, Law & Greenspan, Inc.

Title:

Daily Traffic Distribution Alternative 2

31

Twenty-four hour roadway capacities were estimated based on the master planned cross-sections shown in Figure 18 and on the following assumptions: an ultimate population of between 25,000 and 40,000, a peak hour factor of .85, 5 percent trucks, 10 percent right turns, and a G/C ratio of .50. The resulting capacities that were determined by these assumptions were as follows:

Functional Classification	Capacity
Collector	11,000
Secondary	17,000
Major	20,000
Arterial	21,500

It should be noted that the actual capacities could vary from those calculated above as the area develops and actual traffic characteristics can be determined. Roadway capacity when evaluated on a corridor basis, for instance, often results in a range in capacity values (for example, traffic volumes of between 20,000 and 30,000 vehicles per day are commonly associated with arterial highways). This range depends upon such things as access control, intersection spacing, and signal progression. However, the capacities calculated above are believed to be reasonable and appropriate values for planning purposes.

The calculated roadway capacities above and the projected future roadway volumes shown in Figure were used to determine a recommended circulation system for the various alternatives proposed. Capacity deficiencies and surpluses were balanced among parallel routes to develop a recommended arterial highway system. This procedure assumed that the local circulation system would be designed in such a manner so as to more evenly distribute study area traffic to the arterial roadway system for a particular travel orientation. The recommended circulation networks also assumes intersection widening techniques would be implemented to the next highest functional classification where that higher classification would not be justified over an entire roadway link. It has also been assumed that the proposed circulation system would be developed so that the various roadway segments would be constructed out of the existing floodway, or in such a manner that access would be maintained should a flood occur.

On this basis then, the following master planned highway cross-sections are recommended for roadways in the Southwest Hemet Study Area should it develop according to Alternative 2.

Roadway	Classification
Sanderson Avenue	Arterial
Stetson Avenue	Arterial
Acacia Avenue	Collector/Secondary
Harrison Avenue	Collector
Simpson Road	Major
Warren Road	Collector/Secondary
Cawston Avenue	Secondary
Fischer Street	Secondary
Lyon Avenue	Collector/Secondary
Kirby Avenue	Secondary

To individually calculate the estimated capacity utilization at each intersection within the study area is beyond the scope of planning at the general plan level. Thus, in this report, hypothetical capacities have been utilized and a more refined analysis should be made as the area develops.

It becomes apparent, when balancing capacity deficiencies and surpluses among parallel routes, that another east-west route, paralleling Stetson Avenue to the south, would be essential to the areas development. Harrison Avenue is currently master planned as a secondary highway between Warren Road and Lyon Avenue on the Hemet-San Jacinto General Plan and between Warren Road and State Street on the Circulation Element of the Riverside County General Plan. This master planned secondary highway would provide the additional east-west route needed to accommodate future traffic volumes projected to occur as a result of development planned in the area. It should be noted however, that a golf course has been constructed and is in operation in that area that would include the easterly extension of Harrison Avenue as currently shown on the respective Highway Master Plans. It may be necessary, therefore, to amend the existing Highway Master Plans (Hemet and Riverside County) to reflect a more southerly alignment of Harrison Avenue should this new alignment prove more advantages to the City of Hemet and development in the Southwest area.

Signalization of the major intersections within and immediately adjacent to the Southwest Hemet Study area would undoubtedly be warranted upon completion of the entire development. These intersections would include Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue, Sanderson Avenue and Acacia Avenue, Stetson Avenue and Cawston Avenue, Stetson Avenue and Warren Road, Kirby Avenue and Stetson Avenue, and Kirby Avenue and Acacia Avenue. However, since traffic signals should be installed only after positive evidence of there need has been demonstrated, it is recommended that specific intersections be evaluated as necessary prior to ultimate occupancy of the areas planned development.

The development of the Southwest Study area according to this alternative would generally impact all transportation facilities in the Hemet area. It is difficult however, to quantify traffic impacts at locations more distant from the study area. This is due to the fact that traffic volumes generated by land development within the area tend to dissipate or "decay" as the distance from the generating source and a particular location under consideration increases. It can reasonably be expected however, that the primary north-south routes between Stetson Avenue and Florida Avenue would receive a significant amount of study area generated traffic. Also, major trip attractors are still expected to be located along Florida AVenue for some time in the near future. Therefore, traffic generated by development within the Southwest Hemet study area, could be expected to further impact traffic conditions along Florida Avenue.

As previously mentioned the only public transportation service to the area at the present time is provided by a dial-a-ride system. Due to the lack of public transportation to rural areas such as Hemet those residents who do not own there own automobiles are dependent on a relative, friend or neighbor to provide for any transportation needs. When these sources or public transportation systems are unavailable they remain isolated. The Riverside Transit Agency is attempting to alleviate some of the problems which confront many transportation disadvantaged individuals in the county. The development of the southwest area of Hemet may inable public transportation into this area to become more economically feasible thus enhancing the efforts to improve public transportation facilities.

When specific project site plans for the various components of the southwest area are developed, provisions should be made for adequate off-street parking. General parking demands for several common types of land uses and off-street parking requirements are listed in the Riverside County zoning ordinance and presented in Table 18.

The development of the Southwest Hemet study area according to development Alternative 2 would result in an estimated daily VMT (vehicle miles travelled) increase of roughly 567,000 miles per day.

Mitigation Measures

The following measures are suggested as a means of mitigating potential traffic impacts generated by the development of the Southwest Hemet Study Area as proposed herein. The measures listed below would have the effect of improving anticipated traffic conditions with regard to both project related traffic and total area traffic which would result from other future growth in the area.

- The construction and improvement of the following roadways to their recommended master plan cross-section will be required to accommodate the anticipated traffic volumes that are projected from development within the Southwest Hemet study area:

Roadway	Master Plan Cross-Section
Sanderson Avenue	Arterial
Stetson Avenue	Arterial
Acacia Avenue	Collector/Secondary
Harrison Avenue	Collector
Simpson Road	Major
Warren Road	Collector/Secondary
Cawston Avenue	Secondary
Fischer Street	Secondary
Lyon Avenue	Collector/Secondary
Kirby Avenue	Secondary

- Construction of all planned local collector streets to the standards set forth in the Riverside County General Plan and the Hemet-San Jacinto General Plan.

TABLE 18

PARKING REQUIREMENTS

TYPE OF LAND USE	SPACES REQUIRED[1]	ORDINANCE 348[2]
Retail Store*	1 per 350 sq.ft. GFA**	1 per 250 sq.ft. GFA
Office Building	1 per 300 sq.ft. GFA	1 per 250 sq.ft. GFA
Restaurant (sit down type)	1 per 4.5 seats	1 per 45 sq.ft. of serving area
Single-Family Dwelling	2 per unit	1 per D.U.
Multi-Family Dwelling	1.75 per unit	1 per D.U.
Shopping Center 30,000-75,000 sq.ft. GFA	7 per 1,000 sq.ft. GFA	1 per 150 sq.ft. GFA

* Not in a shopping center.

** GFA - Gross Floor Area

SOURCE: [1] Traffic Engineering for Small Cities and Counties, Automobile Club of Southern California, p. 11.

[2] Riverside County Zoning Ordinance No. 348, Section 18.12.

- The installation of traffic signals at the following intersections will undoubtedly be warrented. These intersections would include Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue, Sanderson Avenue and Acacia Avenue, Stetson Avenue and Cawston Avenue, and Stetson Avenue and Warren Road, Kirby Avenue and Stetson Avenue, and Kirby Avenue and Acacia Avenue. However, as previously discussed, the installation of traffic signals should be made only after positive identification of their need has been established and it is recommended that these intersections be evaluated as necessary prior to ultimate occupancy of the areas planned development.

- Promote ride-pooling (car-pools/van-pools) with regard to persons employed in any planned commercial and industrial activities. This would have the potential of reducing daily commuter traffic and on-site parking requirements.

- Demand-responsive (dail-a-ride) public transit should be encouraged. Where practical small vans or busses should be used. Provision of a public transit system will reduce potential auto travel, and provide mobility to those residents who are either too young to drive, do not drive, no longer drive, or are not capable of bicycling.

- The feasibility of expanding the Riverside Transit Agency's transportation service in the Hemet area should be considered.

- Control of access to the arterial and major street system as outlined in the Riverside County Subdivision Ordinance No. 460 should be encouraged. Control of access reduces the number of potential traffic conflicts, smoothes out traffic flow and increases traffic capacity.

- Provide sufficient off-street parking to meet anticipated demand for each planned use, taking into account the County zoning ordinances and the potential for overlapping or joint use of parking areas serving such complimentary land uses as may be developed.

- Provide separate bicycle and pedestrian pathways throughout the project as a means of promoting alternative forms of movement. For safety, convenience and efficiency, these systems should be separated from the vehicular traffic system and from one-another.

- Establish land use patterns, intensities and relationships which would reduce vehicle trip making characteristics and promote the use of alternative modes of travel such as bicycles, walking and transit. For example, increased residential densities adjacent to the planned commercial activities and open spaces designed with integral bike paths and pedestrian ways.

Unavoidable Adverse Impacts

Land Use Alternative No. 2 could produce an estimated 113,400 vehicle trip ends per day evenly distributed between inbound and outbound.

4.2.9 Open Space and Conservation

Land Use Alternative No. 2 would reduce the amount of open space in the Southwest Area by over 55 percent. Over 1,989 acres of open space will be reclaimed for residential, commercial and industrial land uses. The remaining area will remain in the current agricultural and open space use. Development would be restricted on steep hillside slopes over 25%, consistent with the Hemet Open Space and Conservation Element.

The Salt Creek floodway will remain as open space. Portions of the flood plain may be lost as open space to residential development.

The southwest corner of the Southwest Area, which is unincorporated County land, is the only part of the project area with an agricultural preserve status. Portions of this agricultural preserve may be developed for residential use upon completion of the interim flood control channel. In addition, a major portion of the site includes Class I and II capability soils, considered prime agricultural land. This land will be lost as residential development of the area occurs. Agriculture has been of great value to the community, both in terms of economic gains and as a means of preserving open space. The loss of agricultural land is irreversible. The proposed residential development in the Southwest Area may encourage property values to rise on adjacent agricultural property, particularly County land in Diamond Valley to the east and land west of Hemet.

The Open Space and Conservation Element recommends a community park of between 30 and 40 acres to serve Hemet and the developments serving the City. The Southwest Area has a the potential for development of park facilities concurrent with residential development. Using the standard of 2.5 to 3 acres of open space per 1,000 population, this land use alternative could create a need for 50 to 60 acres of neighborhood parks.

Mitigation Measures

Open space should be valued as an essential complement to urban living and considered within all future development proposals. Development subdivision practices which foster open space and conservation concepts (such as clustering, zero lot lines and coverage incentives) should be encouraged.

Policies should be formulated to encourage participation in the Williamson Act Preservation Program, granting tax relief to owners of agricultural property who agree not to develop their land for a minimum of 10 years. Additional incentives should be provided for agricultural land owners holding less than 100 acres who are not eligible for preservation status and the economic security it provides.

Unavoidable Adverse Impacts

Land Use Alternative No. 2 would reduce the amount of open space in the Southwest Area by approximately 55 percent.

4.2.10. Public Services and Utilities

4.2.10.1 Fire Protection

Development resulting from Land Use Alternative No 2 will impact the City of Hemet Fire Department by requiring additional manpower and equipment. The increased demand on the Department will make it necessary to provide additional stations in the southwest and northeast areas of the City. One station is proposed to be located near the airport industrial area, probably on Stetson Avenue. Another station is proposed to be constructed in the vicinity of Menlo and Sanderson Avenues.* Based on a rate of one firefighter per 1,000 population, Land Use Alternative No. 2 could necessitate the addition of 28 firefighters in the Southwest Area.

Development in the Southwest Area will increase response times and number of calls. New construction that occurs adjacent to existing development in the City is more easily serviced than more remote areas. Developments that encroach upon the flight paths and those surrounding the airport may be subject to aircraft crashes.

Mitigation Measures

New development should be located adjacent to existing developed areas, rather than in remote fringe areas, to minimize the response time. Adequate design features should be incorporated into all new development.

Unvoidable Adverse Impacts

The increased demand will require additional manpower and equipment.

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* Richard Feuerstein, Assistant Fire Chief, City of Hemet Fire Department.

4.2.10.2 Police Protection

Development resulting from Land Use Alternative No. 2 will impact the City of Hemet Police Department by generating an increased demand for manpower and equipment. At this time, the Police Department has a need for five more officers for traffic enforcement and specialized burglary patrol. Land Use Alternative No. 2 could generate a population growth of 19,890 people in the Southwest Area, thus necessitating a minimum of 29 additional officers, based on a rate of 1.45 officers per 1,000 persons. Crime prevention and traffic control will become more unmanageable if the present trend continues.

Mitigation Measures

New development should be located adjacent to existing developed areas, rather than in remote fringe areas, to minimize the response time. Adequate street and security design features should be incorporated into all new developments.

Unavoidable Adverse Impacts

The increased demand will require additional manpower and equipment.

4.2.10.3 Schools

Land Use Alternative No. 2 would impact the Hemet Unified School District by generating additional students. The school system has no excess capacity; therefore, any new development would require school construction. The 1977-1978 enrollment at Hemet Senior High School exceeded the school's capacity by nearly 80 students. The school system does not have a student generation rate due to the unusual composition of the population of Hemet. Based on the 1975 ratio of 15.4 students per 100 population, this land use alternative could generate 3,065 additional students. This ratio has remained fairly constant since 1975. Overenrollment is expected to continue at a 3 percent annual growth rate. There are no immediate plans or financing provisions for increasing the capacity of schools in the district. In addition, most of the students generated by residential development in the Southwest Area will be located outside the maximum walking distance to associated schools. Therefore, additional bus service will also be required.

Mitigation Measures

Student generation rates are uncertain at this time. SB 201, relating to builder contributions to the school system, may be a means of purchasing relocatable classrooms and putting them on existing sites. However, the cost may be prohibitive under the developer assessment program.

Unavoidable Adverse Impacts

This Land Use Alternative could generate 2,319 additional students, requiring new school construction.

4.2.10.4 Hospital and Emergency Services

It is expected that this land use alternative will require 75 additional beds at the Hemet Valley Hospital, based on a factor of 3.5 beds per 1,000 people. The hospital is currently operating at near capacity; however, an additional medical-surgical unit of 90 beds is expected to be completed by April of 1979. The new unit will accommodate the project demands created by this alternative.

Mitigation Measures

The new medical-surgical unit will mitigate the additional demand created by the project.

Unavoidable Adverse Impacts

This alternaitve will increase demand for hospital and emergency services.

4.2.10.5 Electricity

Electrical service will be provided to the development proposed by Land Use Alternative No. 2 through extension of the electrical distribution facilities located along the south side of Stetson Avenue. This Land Use Alternative is expected to generate a peak demand of 139,791 kilowatts, based on the following demand rates:*

Single-family	10 KW/DU X 7359 DU =	73,590 KW
Multiple-family	5 KW/DU X 9348 DU =	46,740 KW
Mobile Home	5 KW/DU X 2387 DU =	11,935 KW
Commercial	7 Watts/Sq.Ft. X 198,950 Sq.Ft. =	1,393 KW
Industrial	4 Watts/Sq.Ft. X 1,533,312 Sq.Ft. =	6,133 KW
TOTAL		139,791 KW

* Ultrasystems Planning Factors.

Electrical consumption represents a use of a non-renewable natural resource, e.g., low sulfur fuel oil. The use may be considered an irreversible impact from the proposed development. The extension of additional electric service to the Southwest Area may be considered growth-inducing.

The major fuel used in Southern California Edison Company's generating facilities is low sulfur fuel oil. The inventory of low sulfur fuel oil, combined with contractual agreements for delivery and electric customers' conservation effects, is expected to allow Southern California Edison Company to meet peak demand through 1977. Ability of Southern California Edison Company to meet peak demand periods after 1980 is dependent upon plans to proceed with construction of new generating facilities, since total system demand is expected to increased annually.*

Mitigation Measures

Energy conservation measures should be required to minimize the loss of low sulfur fuel oil, a non-renewable natural resource. Southern California Edison Company should be consulted to incorporate energy conservation measures into future development proposals.

Generally, energy conservation measures include application of solar energy for water heating, use of energy-efficient appliances, building insulation, and energy conserving desing of common facilities. Refer to Section 4.2.11 regarding energy mitigation measures.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for electricity, electrical distribution lines and service.

4.2.10.6 Gas

The Southern California Gas Company will provide service to the Southwest Area through extension of the gas supply line located in Florida Avenue. The existing supply line system has approximately 20% excess capacity over present requirements, a capacity for 7,000 people.** Land Use Alternative No. 2 could generate 19,890 people, thereby exceeding the current capacity of the service system. This land use alternative is expected to consume 134.7 X 10^6 cubic feet of gas per month, based upon the following

* H. E. Ashford, District Manager, Southern California Edison Company.
** R. C. Wright, Distribution Planning Supervisor, Southern California Gas Company.

consumption rates:*

Single-family	9,125 cu.ft/DU/Mon X 7,359 DU =	67.2×10^6 cu.ft/Mon
Multiple-family	5,330 cu.ft/DU/Mon X 9,348 DU =	49.8×10^6 cu.ft/Mon
Mobile Home	5,000 cu.ft/DU/Mon X 2,387 DU =	11.9×10^6 cu.ft/Mon
Commercial	3.5 cu.ft/Sq.Ft./Mon X 198,950 Sq.Ft. =	$.70 \times 10^6$ cu.ft/Mon
Industrial	3.3 cu.ft/Sq.Ft./Mon X 1,533,312 Sq.Ft. =	5.1×10^6 cu.ft/Mon
TOTAL		134.7×10^6 cu.ft/Mon

The local distribution systems will require expanding. The timing and location of future reinforcements will depend on the actual growth rate and pattern. As a public utility, the Southern California Gas Company is regulated by the California Public Utilities Commission. They are also affected by actions of federal regulatory agencies. Should these agencies make any policy or rule changes that affect gas supply or conditions under which service is available, gas service would be provided to the area in accordance with the revised rules.

Mitigation Measures

Energy conservation measures should be required to minimize the loss of a valuable, non-renewable natural resource. Consultation should be made with the Southern California Gas Company to implement conservation measures. Possible energy conservation measures include application of solar energy for water heating, use of energy efficient appliances, building insulation and energy conserving design. Refer to Section 4.2.11 regarding energy mitigation measures.

4.2.10.7 Water

The Eastern Municipal Water District (E.M.W.D.) will provide domestic water to the project through extension of existing service lines in the Southwest Area. The specific capacity of the system could not be quantified without a detailed study, but E.M.W.D. indicated that the distribution system was probably operating near capacity. At present, 75 percent of the water supplied by E.M.W.D. is sold for agricultural use. Domestic use has the

* City of Los Angeles, EIR Manual for Private Projects, 1975. Updated, 1976.

primary claim to the imported Colorado River water supply of E.M.W.D. and the Metropolitan Water District of Southern California. In the event of a serious water problem, the Metropolitan Water District of Southern California has a formula for the allocation of the water it imports.*

The transition of the Southwest Area from irrigated agriculture to domestic use will not require appreciably more water than is currently being used.

Water consumption for Land Use Alternative 2 is estimated to be 95,100,045 gallons/month, based on actual City water use as follows:**

Single-family	6308 gal/DU/Mon X 7359 DU =	46,420,572 gal/Mon
Multiple-family	4313 gal/DU/Mon X 9348 DU =	40,317,924 gal/Mon
Mobile Home	3435 gal/DU/Mon X 2387 DU =	8,199,345 gal/Mon
Commercial	855 gal/CU/Mon X 100 CU =	85,500 gal/Mon
Industrial	1088 gal/IU/Mon X 70.5 IU =	76,704 gal/Mon
TOTAL		95,100,045 gal/Mon

Impacts from the project upon water quality will be due to sewage generated by project residents.*** Reclaimed wastewater is used for irrigation water and percolates through the soil to the groundwater level. Total dissolved solids are not reduced as the water percolates through the soil. Nitrates may be a problem.**** Groundwater quality is monitored, and E.M.W.D. is working with the Regional Water Quality Control Board on a long-term solution to water quality problems.

Mitigation Measures

Efforts toward water conservation should be made. Possible measures include:

- Lanscape watering during early morning hours or during the evening to reduce water loss from evaporation.
- Selection of drought-tolerant plants in lanscaping.
- Use of plumbing fixtures which will reduce water loss or consumption.

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* James H. Bunts, Jr., Eastern Municipal Water District.
** "Fiscal Impact Analysis of Southwest Area," Ultrasystems.
*** Kevin Kozad, Eastern Municipal Water District.
**** Ibid.,.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for domestic water.

4.2.10.8 Sewage

Sewage collection and treatment will be provided to the proposed land uses, through extension of existing City and Eastern Municipal Water District (E.M.W.D.) facilities. The Hemet-San Jacinto Regional Water Reclamation Facility has a present capacity of 5 MGD, leaving an unused capacity of 1.5 MGD. The 21-inch main sewer line in Stetson Avenue has a 3 MGD capacity, leaving an unused capacity of 2.75 MGD. Land Use Alternative No. 2 is expected to generated 2.2 MGD based on the following generation rates:*

Residential	100 gal/person/day X 19,890 people =	1,989,000 gal/day
Commercial	100 gal/1,000 sq. ft./day X 198,950 sq. ft. =	19,895 gal/day
Industrial	100 gal/1,000 sq. ft./day X 1,533,312 sq. ft. =	153,331 gal/day
TOTAL		2,162,226 gal/day

The proposed land use alternative will impact the E.M.W.D. facilities by generating sewage in excess of the existing system capacities. A sewage treatment plant is planned for the Winchester area to serve the Southwest Area and the southern part of the Valley, although a date is not available for the construction of this plant.

Mitigation Measures

Mitigation Measures are closely related to water conservation measures mentioned in the previous section.

Unavoidable Adverse Impacts

The proposed land use alternative will generate sewage amounts close to the existing system capacities.

4.2.10.9 Telephone

Telephone service will be available to serve the proposed land uses, through extension of existing distribution lines. The proposed land uses will

* Ultrasystems Planning Factors.

not cause a significant impact on the plans of the telephone company for providing service to the area, provided that growth occurs in increments.

Mitigation Measures

No mitigation measures are proposed.

Unavoidable Adverse Impacts

The proposed land use alternative will result in increased demand for telephone services.

4.2.10.10 Solid Waste

Refuse collection services will be provided by the City of Hemet. Refuse collection is mandatory at a frequency of two times per week.

On-site generation of solid waste resulting from Land Use Alternative 2 is estimated to be 84,370 pounds per day or 42.2 tons, based on the following generation rates:*

Residential 2.5 lb/person/day X 19,890 persons =	49,725 lb/day
Commercial 2 lb/day/100 sq. ft. X 198,950 sq. ft. =	3,979 lb/day
Industrial 2 lb/day/100 sq. ft. X 1,533,312 sq. ft. =	30,666 lb/day
TOTAL	84,370 lb/day

The two landfill sites serving the Southwest Area will be impacted by the solid waste generated, however, the life of the landfill is projected beyond the year 2000.

Mitigation Measures

Separation of wastes at the source could be encouraged to facilitate resource reclamation and recycling efforts.

Unavoidable Adverse Impacts

This alternative will result in an increased burden upon landfill sites.

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* Riverside County Waste Disposal Division.

4.2.11 Energy

Implementation of the proposed land uses will result in consumption of non-renewable energy resources, both in the short-term and in the long-term.

Short-term impacts include use of non-renewable energy resources during the construction phase of the proposed project. Fossil fuels will be used to operate construction machinery as well as to transport workers to and from the project site. Since construction materials themselves have required the consumption of energy for their production, use of construction materials also represent consumption of energy resources.

Long-term impacts due to project implementation include consumption of gas and electricity for heating, cooking and water heating (see section regarding Public Services and Utilities). Long-term impacts also include the consumption of gasoline.

The amount of fossil fuels burned for production of electricity to serve the project can be estimated, as can the amount of natural gas burned. Residents of the proposed project are estimated to consume 14,947,399 kwh/month or 179,370,000 kwh/year. Using the formula below it has been calculated that an estimated 12,325,130 gallons of low sulfur fuel oil is necessary to generate the required electric power.

$$\frac{179{,}370{,}000 \text{ kwh}}{\text{year}} \times \frac{10{,}387 \text{ BTU}}{\text{kwh}} \times \frac{\text{lb.}}{19{,}000 \text{ BTU}} \times \frac{\text{gal.}}{7.956 \text{ lb.}}$$

$$= 12{,}325{,}130 \text{ gallons/year}$$

Natural gas combustion has been estimated at 134.7×10^6 cubic feet per month.

Mitigation Measures

Energy Conservation. The commercial and industrial buildings in the project area should be designed for optimum energy-efficiency in accordance with Energy Conservation Standards for New Non-Residential Buildings* adopted by the State of California Energy Commission on February 5, 1976.

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* Energy Conservation Standards for New Non-Residential Buildings. Regulations establishing energy conservation standards for new non-residential buildings, adopted by the State Energy Resources Conservation and Development Commission pursuant to Sections 19878-19878.8 of the Health and Safety Code and Section 25402(a) of the Public Resources Code are contained in California Administrative Code, Title 24, Part 6, Division T20, Chapter 2, Subchapter 4, Article 2, Sections T20-1450 to T20-1550.

The new regulations prescribe energy conservation standards for non-residential buildings in California. Specifically, the regulations include energy saving designs for roof, wall, and floor installations, and also contain lighting, heating and air conditioning and hot water supply specification standards. The regulations encourage the use of solar and wind power and other non-depleting energy sources. They offer builders the option of utilizing any building design that consumes less energy than the standard design described in the regulations. The regulations will be enforced by local building officials through the permit process.

Energy consumption in non-residential buildings is determined by interior heating and cooling requirements. The major climate influence in the Hemet area is that of the Continental Air Mass, with the ocean determining the climate no more than 15 percent of the time. Two climates occur within the Hemet Valley area. Cold air basins are formed in the valley, where the project site is located.

The overall climate in the San Jacinto area is defined as semi-arid. Yearly rainfall averages 12.81 inches. On the average nine inches, or seventy percent of the total, falls in the four months, December through March. According to State Climatologist, the average temperature in the area over a period of a year is 62.4^{o}. The average high is nearly 99° in July and the low is 34.5^{o} in January. The prevailing winds are from the southwest and, according to the Riverside County Department of Development, the mean hourly speed is nineteen miles per hour.

The State Energy Resources Conservation and Development Commission has adopted regulations establishing energy conservation standards for new residential buildings. These regulations took effect July 1, 1978 after which no new residential building permits may be issued unless the building design is in compliance with the new standards. The Energy Commission has developed a Residential Energy Conservation Manual to assist designers, builders, building officials and contractors in interpreting and implementing the new standards. Provisions for life cycle cost comparison of electric, natural gas, and solar space and water heating systems are included in the standards.

The Energy Commission has also adopted energy conservation standards covering new appliances. In accordance with these standards, no new appliance manufactured after the affective dates provided in the standards may be sold in California unless certified by the manufacturer to be in compliance with the new standards. The appliances covered under the standards include gas fired, forced air control furnaces, gas cooking appliances, gas clothes dryers, room and central air conditioners, refrigerators and freezers, and gas hot water heaters.

Unavoidable Adverse Impacts

Implementation of this land use alternative will result in consumption of non-renewable energy resources, both in the short-term and in the long-term.

4.3 Land Use Alternative No. 3 - Impacts and Measures Which May Mitigate or Enhance Impacts

Summary of Land Use Alternative No. 3

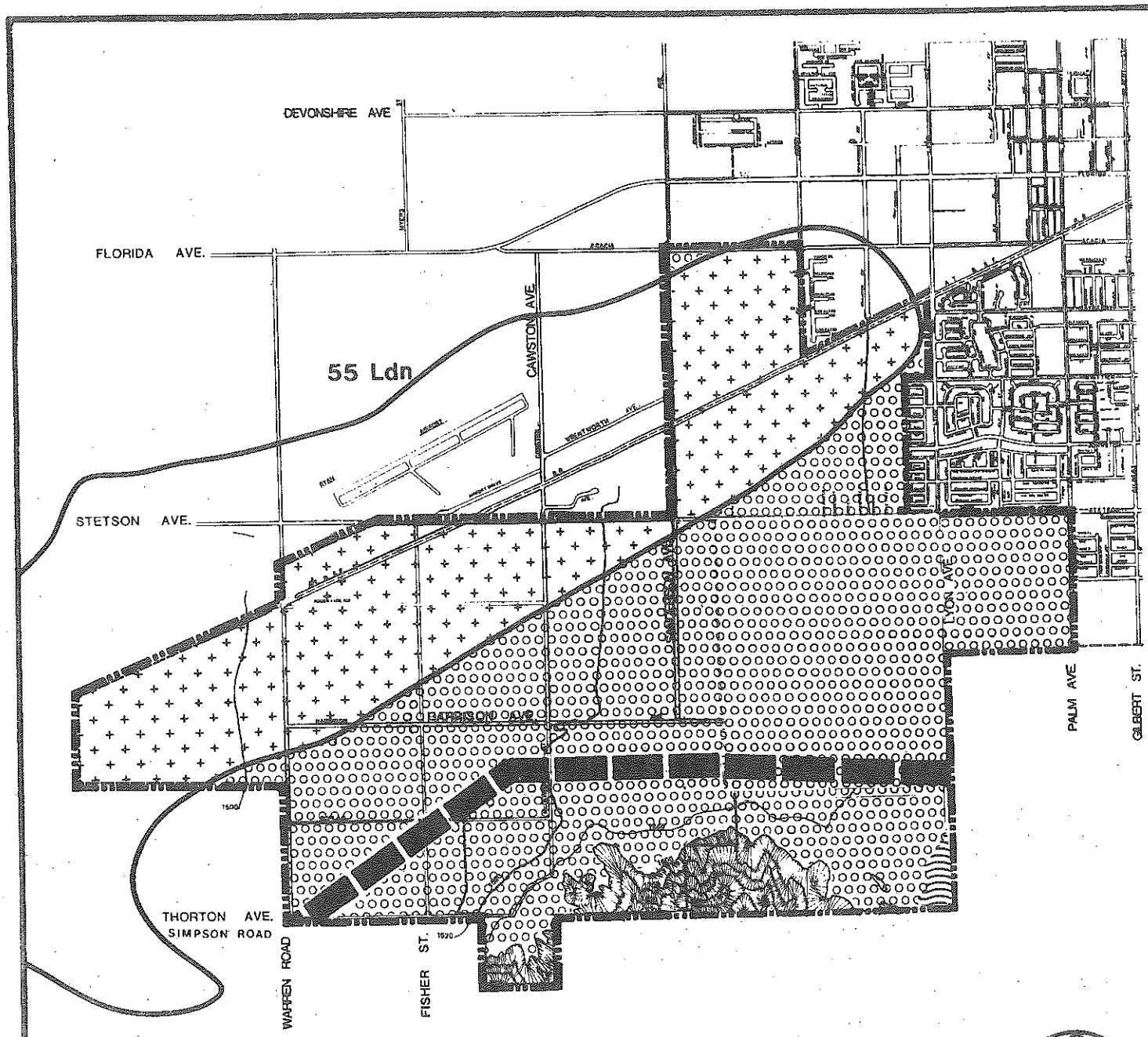
Land Use Alternative No. 3, as shown in Figure 32, moderately limits growth in the Southwest Area through the following assumptions:

1) Reinforces existing Noise Element by restricing residential development within the 55 Ldn noise contour of Hemet-Ryan Airport.
2) Allows existing flooding problems to be mitigated with construction of a flood control channel.
3) Residential development of floodway land would be permitted.
4) Restricts development on steep hillside slopes.
5) Maximum growth of 16,040 people on 1,593 acres suitable for residential development. Gross densities of 4.1-6.1 people/acre and 2.2-3.2 dwelling units/acre allowed.
6) Includes 166 acres of industrial and 15 acres of commercial land uses.
7) Open space or agricultural land reduced to 45 percent of the area.
8) Would probably not encourage redevelopment of existing City areas until 9,000 to 16,000 people are generated.
9) Provides maximum protection of the airport from encroachment and protects residential development from airport noise.

4.3.1 Land Use

Zoning

Land Use Alternative No. 3 would require zone changes in portions of the existing Residential Agriculture zone to allow for the increased residential densities proposed. Residential uses would be limited to those areas outside the 55 Ldn noise contour of Hemet-Ryan Airport and areas outside the floodway. Development would also be restricted on steep hillside slopes. Construction of the flood control channel would permit residential development within the floodway. Zoning designations would have to reflect these land use constraints.



55 Ldn NOISE CONTOUR

ULTIMATE FLOOD CHANNEL

NON-RESIDENTIAL USES

RESIDENTIAL USES AVG. 5.4 DU/ACRE

FLOODPLAIN 100-YEAR INUNDATION

0' 3000' 6000'

NORTH

Source:	Title:	
ULTRASYSTEMS INC.	ALTERNATIVE 3 LAND USE MAP	32

The existing zoning allows a maximum population of 7,500 people. This alternative could generate population growth of 11,870 people in Hemet and 4,170 people in the County, or a total of 16,040 people in the Southwest Area.

Industrial uses would be limited to those areas inside the 55 Ldn noise contour. It is anticipated that 100 acres within the 55 Ldn noise contour would be available for industrial and commercial uses. The remainder of the site not developed for residential, commercial and industrial uses will remain in agricultural and open space use.

General Plan

Land Use Alternative No. 3 will deviate from the Existing General Plan by allowing population growth in the Southwest Area. This plan moderately limits potential growth in the Southwest Area by providing 1,176 acres of land suitable for residential development in Hemet and 417 acres suitable for residential development in the County. Maximum gross densities allowed would be 4.1-6.1 people/acre and 2.2-3.2 dwelling units per acre. The current General Plan requires a 2 acre minimum lot size with an allowable density of one dwelling unit per two acres.

This alternative reinforces the existing Noise Element of the General Plan by restricting residential development within the 55 Ldn noise contour of Hemet-Ryan Airport. The Hemet-Ryan Airport will be protected from encroachment and incompatible uses. Of the 1,000 acres within the 55 Ldn noise contour, 181 acres could be absorbed as industrial and commercial land and 819 acres could be preserved as agricultural land. These uses are compatible with airport activities.

The proposed construction of a flood control channel will allow development of floodway land in conformance with the Public Safety General Plan Element. Development of the floodway land will reduce the amount of open space and agricultural land to 45 percent of the project area. By moderately limiting the growth capacity of the Southwest Area, redevelopment and infill of existing developed areas in Hemet would not be encouraged until over 9,000 additional people were generated. Through this alternative,

all of the growth projected by SCAG for the City for 1990 could be accommodated in the Southwest Area and the 8 percent growth projection. By the year 2000, the SCAG projection could be accommodated but not the 8 percent projection. In accordance with the Open Space and Conservation Element, the steep hillside slopes will be preserved as a scenic resource.

Mitigation Measures

The effects of the increase in density could be mitigated to some extent by the use of multiple and cluster housing which provides increased open space.

There should be early coordination between Riverside County, LAFCO and the City of Hemet to assure that future development of unincorporated area surrounding Hemet either be annexed into the City or conform with the Hemet General Plan. This coordination between these jurisdictions will provide the City with necessary planning controls mitigating incompatible land uses and conflicting development standards.

Unavoidable Adverse Impacts

Open space will be reduced to 45% of the Southwest Area. Approximately 1,127 acres of prime agricultural land will be lost.

4.3.2 Archaeology

Proposed construction related activities could constitute adverse impacts to the archaeological resources discovered at the RIV-1162 site. In addition, resources may be present on unsurveyed portions of the Southwest Area and will also be subject to destruction. The flood control channel in Salt Creek would be constructed through the RIV-1162 archaeological site. Destruction, impairment or removal of artifacts and features on the survey site will result from construction of the channel unless proper mitigation measures are taken. The old cemetary on Stetson Avenue is not expected to be impacted by the project. Once approved, new construction in the Southwest Area could then add pressure to develop adjacent areas east and northwest of the site where archaeological findings have appeared and areas of Indian activity have been recorded. The entire Page Ranch property and the Sundberg property at Stetson and Cawston have been surveyed by a qualified archaeologist. These properties do not contain archaeological resources.

Mitigation Measures

The RIV-1162 archaeological site should be resurveyed for collection of any surface debris. Based on these findings, a final report should be prepared to provide mitigation measures and recommendations. In addition, future development sites must be surveyed for archaeological resources and mitigation measures recommended on the basis of future finds.

Unavoidable Adverse Impacts

Possible destruction, impairment or removal of artifacts and features.

4.3.3 Vegetation and Wildlife

Biological resources in the Southwest Area have previously been disturbed by agricultural uses. However, the project will impact the existing vegetation and wildlife on the site by construction related clearing of vegetation and alteration of topography during site preparation. The presence of structures, roads and human activity will also impact wildlife after construction. The project will result in the dislocation or destruction of existing vegetation and wildlife species on the site.

Approximately 45% of the Southwest Area will be preserved as open space or agricultural uses. However, even the remaining open space areas will be disturbed by the adjacent construction and resident activities. Landscaping will result in the introduction of plant species not present now and may attract animals that are now infrequent or absent. Watering and fertilizing of lawns will allow new species of plants to grow in areas adjacent to the lawns. The presence of structures and fences will restrict the movement of coyotes, rabbits and other mammals and amphibians.

Mitigation Measures

The proposed preservation of 45% of the site for open space and agricultural uses will somewhat mitigate the impact upon vegetation and wildlife. The natural and undisturbed areas will provide a habitat for wildlife to relocate. Biological resources surveys, prior to development would provide assurance that no rare or endangered plant and wildlife species will be disturbed.

Unavoidable Adverse Impacts

Existing vegetation and wildlife species in the Southwest Area will be dislocated or destroyed.

4.3.4 Climate and Air Quality

Short-term

The construction phase of developments associated with the project will produce two sources of air pollution emissions. These are exhaust emissions from construction and grading equipment and dust generated as a result of earth movement and equipment traffic over dust ladden roads. The dust emissions may cause a nuisance to any persons who reside or park motor vehicles in the vicinity of the project. However, the emissions will be of short-term duration.

Long-term Impacts

Long-term impacts associated with the project consist of emissions generated by the following sources:

Stationary	Mobile
Off-site generation of electricity for project. On-site use of natural gas for cooking, space heating, and water heating.	Motor vehicles

Stationary Sources

Stationary on-site emissions from natural gas combustion associated with the project are presented in Table 19. As shown in the Table the contribution of project on-site stationary emissions on the total emissions projected for the project area is nearly negligible.

The stationary emissions resulting from the project electrical energy demand will occur off-site at electrical power generating plants (nuclear, oil, and hydroelectric) located throughout the utilities generating network. The total emissions due to the generation of electricity for this project are given in Table 20 assuming the power is provided by an oil burning power plant.

TABLE 19

LAND USE ALTERNATIVE NO. 3
EMISSIONS FROM USE
OF NATURAL GAS (ON-SITE)

POLLUTANT	EMISSION FACTOR* LBS/1000 FT^3	PROJECT EMISSIONS** LBS/DAY	TOTAL 1995 EMISSIONS FOR RIVERSIDE COUNTY*** TONS/DAY	PERCENT OF TOTAL COUNTY EMISSIONS
Carbon Monoxide	Negl	Negl	203	Negl
Total Hydrocarbons	Negl	Negl	40	Negl
Nitrogen Oxides	0.116	338	48	0.4
Sulfur Oxides	Negl	Negl	6	Negl
Particulates	0.018	52	29	0.1
TOTAL (Average)	--	390	326	(Negl)

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District. February, 1977.
** Assumes 87.5 million cubic feet of gas/month.
*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

Negl = Negligible

TABLE 20
LAND USE ALTERNATIVE NO. 3
EMISSIONS ASSOCIATED
WITH ELECTRICITY GENERATION (OFF-SITE)

POLLUTANT	EMISSION FACTOR* LBS/1000 KWH	PROJECT EMISSIONS** POUNDS/DAY
Carbon Monoxide	0.2	75
Total Hydrocarbons	0.18	67
Nitrogen Oxides	2.3	860
Sulfur Oxides	2.6	970
Particulates	0.401	149
TOTAL		2,121

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.
** Assumes 11.19 million KWH/month.

TABLE 21

ESTIMATED MOTOR VEHICLE EMISSIONS

ASSOCIATED WITH LAND USE ALTERNATIVE NO. 3

POLLUTANT	EMISSION* FACTOR (GRAMS/MILE)	ESTIMATED EMISSIONS** (LBS/DAY)	TOTAL 1995 EMISSIONS FOR RIVERSIDE COUNTY TONS/DAY***	PERCENT OF TOTAL COUNTY EMISSIONS
Carbon Monoxides	3.8	2,992	203	0.7
Nitrogen Oxides	0.7	551	48	0.6
Hydrocarbons	0.5	394	40	0.5
Sulfur Oxides	0.1	79	6	0.7
Particulates	0.3	237	29	0.4
TOTAL (Average)	--	4,253	326	(0.7)

* 1995 Emission Factors, Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.

** Assumes 357,500 vehicle miles traveled.

*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

Mobile Sources

An estimate of the total motor vehicle emissions generated by traffic associated with the proposed project is shown in Table 21. As indicated in the Table the average contribution of project motor vehicle emissions to the total projected emissions for Riverside County for the year 1995 is about 0.5 percent upon project completion.

Total Emissions

The total pollutant emissions associated with the project are presented in Table 22.

Mitigation Measures

1. Normal wetting procedures should be followed during the site grading operations to reduce dust emissions.

2. The Southern California Association of Governments (SCAG) and South Coast Air Quality Management District are currently preparing in cooperation with City and County governments an Air Quality Management Plan (AQMP) designed to achieve and maintain Federal and State air quality standards within the South Coast Air Basin. The AQMP is to be submitted for approval to the State Air Resources Board by January 1979 prior to submittal to EPA as a revision to the State's Implementation Plan. The AQMP is to identify the need for further control of stationary and mobile sources, alternate transportation strategies, and measures to reduce adverse air quality impacts associated with further growth and development. The proposed project should be reviewed for consistency with the objectives of the AQMP if finalized prior to project approval.

3. Provide for convenient bus stop locations.

Unavoidable Adverse Impacts

There will be additional emissions emitted in the southeastern portion of the South Coast Air Basin. These emissions will result in an incremental decrease in the quality of the air.

TABLE 22

LAND USE ALTERNATIVE NO. 3
ESTIMATED TOTAL EMISSIONS

POLLUTANT	TOTAL EMISSIONS LBS/DAY
Carbon Monoxide	3,067
Total Hydrocarbons	461
Nitrogen Oxides	1,749
Sulfur Oxides	1,049
Particulates	438
TOTAL	6,764

4.3.5 Geology and Soils

Development on the flat alluvial valley area will result in only slight immediate impact as development will be phased over many years. However, construction of a fully improved flood control channel will require significant amounts of landform alteration.

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone. The Southwest Area is about 2 miles from the San Jacinto Fault Zone and is underlain by alluvium of intermediate thickness. Earthquake shaking is expected to be strong to severe as a result of movement on any one of several faults within the San Jacinto Fault Zone. Settlement of soils due to groundshaking could pose a major hazard, especially in areas of fill. Slippage and landslide could possibly occur in the Domenigoni Mountains. The "Land Use/Risk Matrix" in the City of Hemet Seismic Safety and Public Safety General Plan Elements (1976) indicates that light industrial, low-density residential, warehousing and storage, and agriculture and park uses are "provisionally suitable" for most of this area. The increased residential densities proposed would expose a greater population to the risk of human and structural loss.

Mitigation Measures

Engineering geologic investigations should be required for all new construction within the Southwest Area. Construction according to the Earthquake Regulations of the Uniform Building Code and recommendations of a qualified structural engineer should mitigate the risk of human and structural loss.

Unavoidable Adverse Impacts

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone. The landform will be altered by grading for structures and flood control improvements.

4.3.6 Hydrology

Under this alternative land use plan, a fully improved Salt Creek Channel would be constructed from Lyon Avenue to Highway I15E, designed to provide protection against 100 year frequency storms upon complete development of the Hemet area watershed. The ultimate channel right-of-way is expected to be 520 feet with a 230 foot base width. Channel excavation would be placed in spoil banks adjacent to the channel. Portions of this discussion were exerpted from the Draft EIR, Hemet Area Drainage and Salt Creek Channel Improvements.*

All lines proposed in the Hemet Area Master Drainage Plan would be constructed, as previously shown in Figure 13. Underground storm drains would be designed to carry the predicted runoff from 10 year frequency storms. The balance between 10 years and 100 year frequency storm runoff is carried in the streets. The street flows are discharged with the flow in the underground drains into open channels which are designed to accept 100 year storm runoff. Lines "A" and "D" will be enlarged to ultimate size downstream of Cawston Avenue. The principle design capacity of Hemet Channel will be 9500 CFS at its confluence with Salt Creek Channel. Salt Creek Channel will have a design capacity of 9200 CFS to Hemet Channel and 11,700 CFS from the Hemet Channel to Highway I15E.

The improvement of the Salt Creek Channel to the ultimate capacity of 11,700 CFS for the reach from Highway 115E to the Hemet Channel confluence, will obviously provide greater flood protection than an interim channel with a capacity of 1500 CFS. The breadth of flood flows during 100 year frequency storms would be limited to the confines of the channel. Thus, the hazard of flooding will be diminished for land within the Salt Creek flood plain and floodway. Since the Riverside County standard protection level for developments, specified in the Subdivision Ordinance, is for protection against 100 year frequency storms, the improved channel will remove a major obstacle to development in a number of areas in both the City and County. Therefore, the removal of the flood hazard will have a growth-inducing impact on the Southwest Area.

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* Alderman, Swift & Lewis Consulting Engineers, 1977.

Mitigation Measures

Both the City and the County have mechanisms to control and guide the development of flood plain area as proposed in the Land Use, Conservation and Open Space Elements of the County and City General Plans. The Federal Flood Insurance Program will mitigate the flood hazard.

Recreational areas and landscaping should be developed in flood channel areas to prevent adverse visual impacts. Flood control structures should be designed with equal sensitivity for aesthetics and utility.

Construction impact mitigation measures include:

1) Limit heavy construction to week days between the hours of 7:00 AM and 6:00 PM.

2) Use water and temporary paving to prevent dust.

3) Reduce air pollution by using well maintained equipment.

4) Reduce traffic problems by advance planning of construction and the use of appropriate traffic regulation and control devices and by using flagmen if necessary.

5) Conserve energy needed for construction by using proper equipment and properly maintained equipment and by avoiding unnecessary trips and shuttle runs.

6) Mitigate stored equipment and material problems by appropriate security measures.

Unavoidable Adverse Impacts

The natural Salt Creek Channel will be replaced with man-made flood control facilities; however, the natural channel has been previously altered by farming operations and flood hazard will be reduced.

4.3.7 Noise

Impacts

The noise impacts considered in this section result from the following noise sources:

- GRADING AND CONSTRUCTION EQUIPMENT.
- FARMING EQUIPMENT.
- FUTURE AIRCRAFT OPERATIONS AT HEMET-RYAN AIRPORT.
- TRAIN TRAFFIC.
- FUTURE HIGHWAY TRAFFIC.

Development within the Southwest Area is expected to take place through the year 2000. Due to the phasing of residential development, the following interim noise impacts could be expected:

1) Short-term impacts due to grading and construction activities could occur within noise sensitive uses such as residences and schools which would be in close proximity to construction activities. Noise impacts would be nuisance oriented; i.e., annoyance, speech communication interference, and sleep interference (for individuals who normally sleep during daytime hours). Because construction activity is generally limited to daytime hours, no adverse noise impact would be expected during the nighttime period.

2) Residential uses (receptors) located within the Southwest Area immediately adjacent to agricultural uses could experience adverse noise impacts due to late evening and early morning alfalfa harvesting activities. The primary noise impact would be sleep interference.

In an effort to minimize potential adverse noise impacts associated with aircraft operations at Hemet-Ryan Airport, the City of Hemet has established a set of land use compatability criteria. Under Land Use Alternative 3 , residential development will not be permitted within an environment which has an annual average L_{dn}* of 55 dBA or greater (see Figure 32). In comparison, California State Law specifies a noise standard of CNEL (L_{dn}) $\geq$65 dBA.** Therefore, the criteria established by the City of Hemet

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* Refer to Appendix A for an explanation of community noise exposure levels.
** Airport Noise Regulation-California Administrative Code, Title 21, Chapter 2.5, Section 5000-5080.4.

for Land Use Alternative 3 is almost 10dBA lower than that required by California State Law. The primary reason is that the City of Hemet has established this standard in order to provide quietness as an environmental amenity of future residents.

The contour values illustrated in Figure 14 represent the "annual average" condition predicted for 1986, however, a qualifying statement is in order. Based on the data contained in the background report for Hemet-Ryan Airport noise contours (see Appendix A), the contour map does not necessarily represent the average day condition. Generally, fire bombers only use the airport during emergencies. Calculated as part of the annual average condition, fire bomber related aircraft (the C-119J specifically) tend to skew the results (they are significantly noisier than the general aviation aircraft, and therefore, the following two conditions will exist:

1) On days when fire bomber activity is not taking place, the noise environment would be approximately 5 dBA lower than shown for the average annual condition. This clearly represents an acceptable noise environment for future residents of the Southwest Area.

2) On days when fire bomber activity is taking place, the L_{dn} will be considerably higher than the average annual condition. It is possible that residents located nearest the 55 Ldn contour line may be annoyed by fire bomber aircraft related noise events*.

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* Refer to Appendix A, Response to Various Community Noise Levels.

Due to the limited amount of train traffic within the City of Hemet, no significant adverse noise impacts are expected within the Southwest Area. However, if industrial growth does occur in the future, and as a result creates a demand for additional rail service, future land use conflicts could result. Therefore, proposed development in the vicinity of the railroad right-of-way should be carefully considered by the City before any "noise sensitive" development is approved.

Highway traffic noise is expected to be the primary noise source within the Southwest Area. Noise levels are expected to increase significantly as more and more people move into the area. In general, highway traffic noise levels will be highest in areas located adjacent to the primary roadways in the study area. Ultrasystems has estimated noise levels within the vicinity of roadway segments as applicable to residential development for Land Use Alternative 3.* Applicable roadway segments are identified in Figure 33 and the results of calculated L_{dn} exposure levels are contained in Table 23.

The criteria used to assess and prevent adverse highway traffic noise impacts are presented below:

Exterior Environments - Not to exceed L_{dn} of 55 dBA
Interior Environments - Not to exceed L_{dn} of 45 dBA**

Based on the preceeding criteria and the data presented in Table 23, noise mitigations would be necessary in proposed residential areas where the estimated highway noise environment exceeds 55 dBA.

Based on Land Use Alternative 3, development within the planning area is expected to generate an ultimate 92,800 vehicle trip ends per day. The majority of these trips will be oriented towards areas in the City. The result of additional vehicular movement will be a significant unavoidable increase in traffic noise emmission levels within the City of Hemet.

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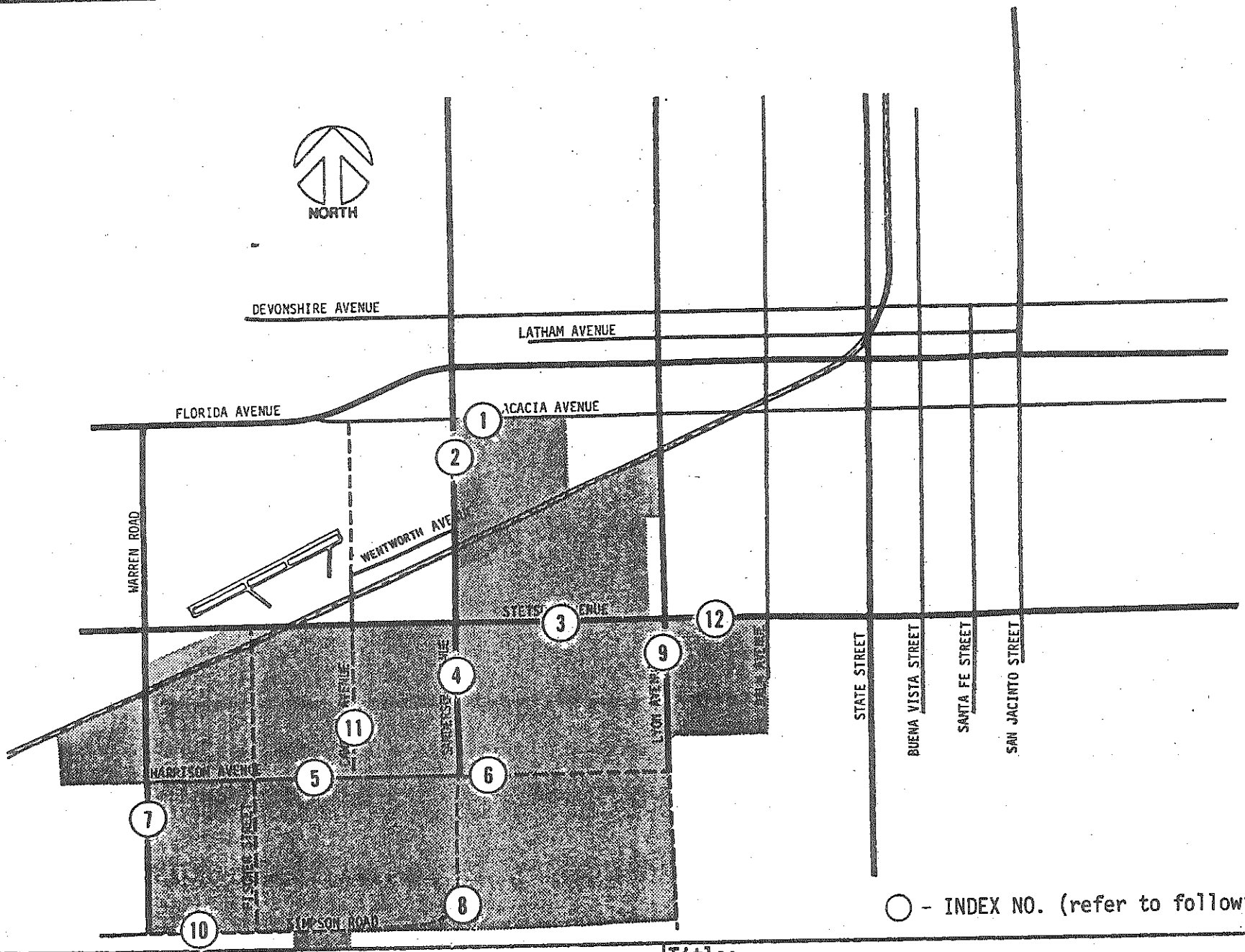
* See Appendix A for Highway Noise Model Assumptions.

** California Administrative Code Title 25. California Noise Insulation Standards. (Assumes a windows-closed condition).
NOTE: An acoustical analysis is required if residential structures are to be located within a noise environment (exterior) of 60 dBA or greater showing that the structure has been designed to meet the 45 dBA interior requirement.



Source:

ULTRASYSTEMS, INC.

Title:

LAND USE ALTERNATIVE 3
NOISE IMPACTED ROADWAY SEGMENTS

33

TABLE 23

CALCULATED L_{dn} EXPOSURE LEVELS

(LAND USE ALTERNATIVE 3)

INDEX NO.	ROADWAY SEGMENT	DISTANCE TO NOISE CONTOURS EXPRESSED IN FEET FROM CENTERLINE OF ROADWAY		
		55 dBA	60 dBA	65 dBA
1	Acacia-East of Sanderson	80	37	17
2	Sanderson-South of Acacia	265	123	57
3	Stetson-East of Sanderson	381	177	82
4	Sanderson-Stetson/Harrison	339	157	73
5	Harrison-Warren/Sanderson	182	84	39
6	Harrison-East of Sanderson	124	57	27
7	Warren-South of Harrison	259	120	56
8	Simpson-South of Harrison	262	121	57
9	Lyon-South of Stetson	273	127	59
10	Simpson-Warren/Fisher	127	59	27
11	Cawston-Stetson/Harrison	131	61	28
12	Stetson-Lyon/Palm	336	156	72

Mitigation Measures

The following mitigation measures are recommended:

- Grading and construction activities should not be permitted between the hours of 7 PM and 7 AM, and on Saturday, Sunday, and legal holidays.
- Agricultural property owners within or adjacent to the Southwest Area should limit agricultural operations as much as possible during late evening and early morning hours. Farming equipment which must be operated during the noise sensitive hours should be equipped with adequate and well maintained exhaust mufflers.
- If train operations increase enough to create a significant adverse noise impact, noise mitigation measures should be considered. Land uses such as residences and school would not be suitable for development at locations immediately adjacent to the railroad right-of-way. Residences which would be located in the general vicinity of the railroad should be screened from railroad noise sources by solid sound barriers such as earthen berms or earthen berm/walls. Project design should stress the orientation of structures away from the railroad including windows and other openings.
- A detailed acoustical analysis will be required for residential development located within the 60 dBA noise contour from highway noise sources. The analysis is required in order to prove that the indoor environment will be reduced to a level of 45 dBA or less*.
- Highway noise mitigation measures such as acoustical site planning and/or the design of earthen berms or berm/wall combinations will be necessary in order to reduce noise to acceptable levels (exterior-55 dBA or less) for residential development within the Southwest Area.

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* Title 25, California Noise Insulation Standards.

NOTE: Residential structures can be utilized to attenuate noise through proper acoustical planning. Outdoor areas can be effectively screened from unwanted noise by incorporating the residential structure as a sound barrier. However, if this concept is used to provide an acceptable interior environment, all windows, vents and other normal openings should be oriented away from the highway noise sources.

- Heavy trucks (3 axles or more) are a major source of highway noise. Therefore, limit heavy truck traffic to the following roadway segments (within or adjacent to the Southwest Area):
    - Warren
    - Stetson - Warren/Sanderson
    - Sanderson - Stetson/Acacia
- The mitigation of highway noise outside the Southwest Area may only be practical or economically viable for new rather than existing noise sensitive land uses.

Unavoidable Adverse Impacts

Traffic generated by the Southwest Area will create a significant increase in traffic noise levels locally and in the City of Hemet.

4.3.8 Traffic and Circulation

Impact

The traffic impacts that would result from the development of the Southwest Hemet study area would be incremental in nature and would relate to the degree of completion of the areas various development components. However, since a developmental time frame has not been established, this analysis considers the impacts that could be anticipated at the full build out according to the specified alternative. Table24 presents a traffic generation forecast for the Southwest Hemet study area once fully developed according to Alternative 3. Traffic generation estimates are included for the AM peak hour and PM peak hour as well as 24 Hour volumes for an average weekday. Generation factors included in Table24 have been taken from studies compiled by Caltrans (California Department of Transportation) and from studies compiled in the Institute of Transportation Engineers Information Report on Trip Generation.

Traffic Generation is expressed in vehicle trip ends where a trip end is a one-way vehicular movement either entering or departing a generating land use. Summation of the vehicle trip ends generated by the various land use components included in the third development alternative for the Southwest Area, would produce an estimated 92,810 vehicle trip ends per day evenly distributed between inbound and outbound. An estimated 8685 vehicle trip ends would be expected to occur during the AM peak hour (3420 inbound and 5265 outbound) while just under 10,500 vehicle trip ends (6220 inbound and 4260 outbound) would be generated during the PM peak hour.

It should be noted that the traffic generation potential listed in trip ends in Table24 is somewhat higher than the number of vehicles that would physically be added to the adjacent street system. Each vehicle trip has two trip ends, one at the origin of the trip and one at the destination. If all vehicle trips generated within the Southwest Hemet study area had origins or destinations outside the combined study area, the total number of vehicle trip ends generated would equal the total number of vehicle trips produced within the study area. However, a certain percentage of residential units will interact trip wise with each other as well as other uses to be contained within the study area, i.e., any commercial centers the Seven Hills Golf Course, the Hemet Ryan Airport, and any future industrial development.

TABLE 24

TRAFFIC GENERATION FORECAST - ALTERNATIVE 3

Development	AM Peak Hour			PM Peak Hour			24 Hour
	Inbound	Outbound	Total	Inbound	Outbound	Total	2-Way
Hemet Residential(4900D.U.) Generation Factor[1] (T.E./D.U.)[2]	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	1470	2940	4410	3430	1960	5390	49000
County Residential(2250D.U.) Generation Factor (T.E./D.U.)	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	670	1350	2020	1570	900	2470	22500
Seven Hills Area Residential (1458D.U.) Generation Factor (T.E./D.U.)	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	440	875	1315	1020	580	1600	14500
Industrial(100acre) Generation Factor (T.E./D.U.)	8.4	1.0	9.4	2.0	8.2	10.2	68.1
Generated Vehicle Trips	840	100	940	200	820	1020	6810
Total Traffic Generated	3420	5265	8685	6220	4260	10480	92810

* Section 210, Trip Generation, An Informational Report of the Institute of Transportation Engineers, 1976.

** T.E./D.U. = Trip Ends/Dwelling Unit. A trip end is a one-way vehicular movement either entering or leaving the generating land use.

Therefore, this one-to-one relationship between vehicle trip ends and vehicle trips does not apply. The number of vehicle trips in terms of vehicles physically added to the adjacent street system is somewhat less than the total number of trip ends produced by the various components of the total study area. For the purposes of this analysis therefore, it has been assumed that 25 percent of the estimated vehicle trip ends to be generated by development within the study area would be completely internal to the area.

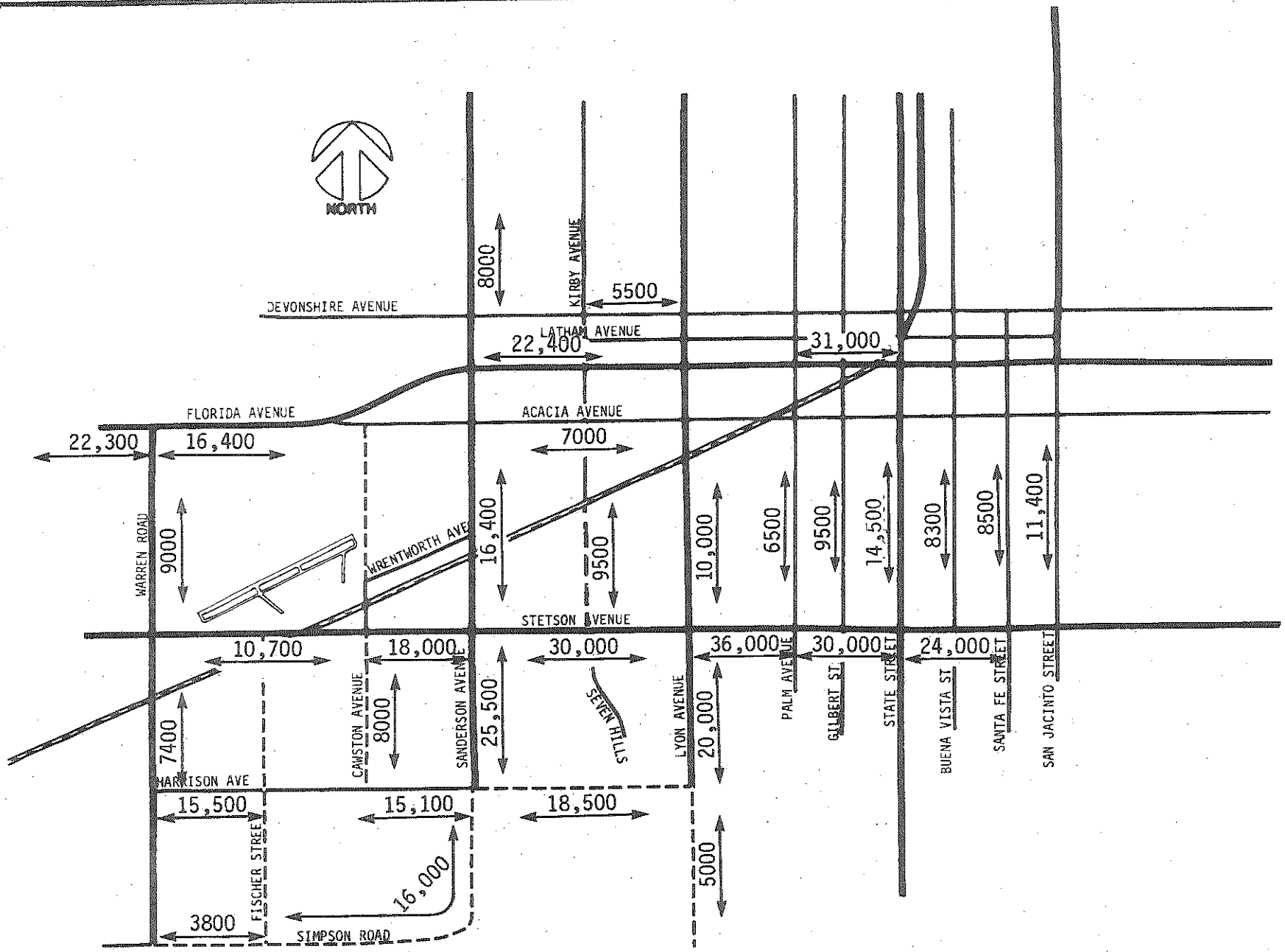
In addition, a daily traffic generation rate of 10 trip ends per dwelling unit has been used for the projections made in this report. This generation rate is generally associated with single family detached dwelling units. Other residential uses such as multi-family townhouses or condominium units, apartments and mobile home parks typically have lower traffic generation rates. For this reason the the traffic generation forecast listed in Table is considered conservatively high.

The traffic generation potential associated with the various land uses within the southwest study area has been distributed and assigned on a component by component basis for each land use designation contained within the specified alternative. The current area roadway system and existing travel patterns, the current and projected population and employment distribution, a review of potential development surrounding the study area, and projected roadway expansion as reflected in the current Master Plan of Highways of both the City of Hemet and County of Riverside were factors considered in projecting traffic distribution. As previously mentioned, a percentage of the traffic generated within the study area is expected to be internal to the area itself. The major attraction of the trips generated that would be external to the study area, would still be expected to be to the north and east of the study area. On this basis, roughly 60 percent of the traffic generated by development within the Southwest Hemet area is expected to be oriented to the north and east of the study area. Fifteen percent is projected to be oriented to the west with the remaining 25 percent completely internal to the study area.

The assignment of the Southwest Hemet study area traffic to various links of the master planned highway system was not capacity restrained in that future total volumes at anyone location were not limited to the capacity associated with the functional classification of that link as shown on the City and County master plans. Figure 34 carries out the distribution and assignment procedure and illustrates the future total traffic volumes on those roadways shown based on anticipated travel desires. The traffic volumes shown in Figure 4 represent a summation of existing roadway volumes and those volumes projected to be added as a result of development in the Southwest Hemet Study Area. They do not reflect any additional growth in traffic volumes that might occur as a result of development in other areas of Hemet.

As illustrated in Figure 34, the primary traffic impact as a result of development in the Southwest Hemet Study area, would be experienced along Stetson Avenue which if the capacity were available would realize a traffic volume increase of roughly 25,000 vehicles per day. This would result in daily traffic volumes of between 30,000 and 36,000 vehicles per day. Sanderson Avenue would also receive a significant increase with daily traffic volumes ranging between 16,400 vehicles per day north of Stetson Avenue and 25,500 vehicles per day south of Stetson Avenue. Simpson Road would be expected to carry approximately 16,000 vehicles per day while Lyon Avenue is projected to carry 20,000 vehicles per day south of Stetson Avenue and 10,000 vehicles per day north of Stetson Avenue.

Kirby Avenue currently ends just south of Acacia Avenue however it will be necessary to complete Kirby Avenue southerly to Stetson Avenue as the southwest area develops. Kirby Avenue, when completed to Stetson Avenue, would provide relief to traffic volumes projected for Sanderson Avenue as well as provide access to that portion of the Southwest Study area it traverses and to the Seven Hills development. As previously mentioned, Lyon Avenue and Palm Avenue run through residential areas (in particular those areas immediately north of Stetson Avenue developed into mobile home lots) that may preclude future roadway widening thereby limiting their respective traffic carrying capabilities. This fact further illustrates the importance of Kirby Avenue to the areas circulation system as future development occurs.



Source:

Title:

Daily Traffic Distribution Alternative 3

34

Similarly, Gilbert Street and State Street would become secondary north-south routes for traffic generated and attracted to the Southwest Hemet study area. These two roadways are projected to carry approximately 9500 and 14,500 vehicle per day, respectively. Other impacted roadways and their respective projected traffic volumes are shown on the distribution figure.

Twenty-four hour roadway capacities were estimated based on the master planned cross-sections shown in Figure 18 and on the following assumptions: an ultimate population of between 25,000 and 40,000, a peak hour factor of .85, 5 percent trucks, 10 percent right turns, and a G/C ratio of .50. The resulting capacities that were determined by these assumptions were as follows:

Functional Classification	Capacity
Collector	11,000
Secondary	17,000
Major	20,000
Arterial	21,500

It should be noted that the actual capacities could vary from those calculated above as the area develops and actual traffic characteristics can be determined. Roadway capacity when evaluated on a corridor basis, for instance, often results in a range in capacity values (for example, traffic volumes of between 20,000 and 30,000 vehicles per day are commonly associated with arterial highways). This range depends upon such things as access control, intersection spacing, and signal progression. However, the capacities calculated above are believed to be reasonable and appropriate values for planning purposes.

The calculated roadway capacities above and the projected future roadway volumes shown in Figure were used to determine a recommended circulation system for the various alternatives proposed. Capacity deficiencies and surpluses were balanced among parallel routes to develop a recommended arterial highway system. This procedure assumed that the local circulation system would be designed in such a manner so as to more evenly distribute study area traffic to the arterial roadway system for a particular travel orientation. The recommended circulation networks also assumes intersection widening techniques would be implemented to the next highest functional classification

where that higher classification would not be justified over an entire roadway link. It has also been assumed that the proposed circulation system would be developed so that the various roadway segments would be constructed out of the existing floodway, or in such a manner that access would be maintained should a flood occur.

On this basis then, the following master planned highway cross-sections are recommended for roadways in the Southwest Hemet Study Area; should it develop according to Alternative 3.

Roadway	Classification
Sanderson Avenue	Major/Arterial
Stetson Avenue	Arterial
Acacia Avenue	Collector/Secondary
Harrison Avenue	Secondary/Major
Simpson Road	Secondary
Warren Road	Collector/Secondary
Cawston Avenue	Collector
Fischer Street	Collector
Lyon Avenue	Secondary/Major
Kirby Avenue	Collector/Secondary

To individually calculate the estimated capacity utilization at each intersection within the study area is beyond the scope of planning at the general plan level. Thus, in this report, hypothetical capacities have been utilized and a more refined analysis should be made as the area develops.

It becomes apparent, when balancing capacity deficiencies and surpluses among parallel routes, that another east-west route, paralleling Stetson Avenue to the south, would be essential to the areas development. Harrison Avenue is currently master planned as a secondary highway between Warren Road and Lyon Avenue on the Hemet-San Jacinto General Plan and between Warren Road and State Street on the Circulation Element of the Riverside County General Plan. This master planned secondary highway would provide the additional east-west route needed to accommodate future traffic volumes projected to occur as a result of development planned in the area. It should be noted however,

that a golf course has been constructed and is in operation in that area that would include the easterly extension of Harrison Avenue as currently shown on the respective Highway Master Plans. It may be necessary, therefore, to amend the existing Highway Master Plans (Hemet and Riverside County) to reflect a more southerly alignment of Harrison Avenue should this new alignment prove more advantages to the City of Hemet and development in the Southwest area.

Signalization of the major intersections within and immediately adjacent to the Southwest Hemet Study area would undoubtedly be warranted upon completion of the entire development. These intersections would include Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue, Sanderson Avenue and Acacia Avenue, Stetson Avenue and Cawston Avenue, Stetson Avenue and Warren Road, Sanderson Avenue and Harrison Avenue, Harrison Avenue and Lyon Avenue and Kirby Avenue and Stetson Avenue. However, since traffic signals should be installed only after positive evidence of there need has been demonstrated, it is recommended that specific intersections be evaluated as necessary prior to ultimate occupancy of the areas planned development.

The development of the Southwest Study area according to this alternative would generally impact all transportation facilities in the Hemet area. It is difficult however, to quantify traffic impacts at locations more distant from the study area. This is due to the fact that traffic volumes generated by land development within the area tend to dissipate or "decay" as the distance from the generating source and a particular location under consideration increases. It can reasonably be expected however, that the primary north-south routes between Stetson Avenue and Florida Avenue would receive a significant amount of study area generated traffic. Also, major trip attractors are still expected to be located along Florida AVenue for some time in the near future. Therefore, traffic generated by development within the Southwest Hemet study area, could be expected to further impact traffic conditions along Florida Avenue.

As previously mentioned the only public transportation service to the area at the present time is provided by a dial-a-ride system. Due to the lack of public transportation to rural areas such as Hemet those residents who do not own there own automobiles are dependent on a relative, friend or neighbor to provide for any transportation needs. When these sources or public transportation systems are unavailable they remain isolated. The Riverside Transit Agency is attempting to alleviate some of the problems which confront many transportation disadvantaged individuals in the county. The development of the southwest area of Hemet may inable public transportation into this area to become more economically feasible thus enhancing the efforts to improve public transportation facilities.

When specific project site plans for the various components of the southwest area are developed, provisions should be made for adequate off-street parking. General parking demands for several common types of land uses and off-street parking requirements are listed in the Riverside County zoning ordinance and presented in Table 25.

The development of the Southwest Hemet study area according to development Alternative 3 would result in an estimated daily VMT (vehicle miles travelled) increase of roughly 464,000 miles per day.

Mitigation Measures

The following measures are suggested as a means of mitigating potential traffic impacts generated by the development of the Southwest Area as proposed herein. The measures listed below would have the affect of improving anticipated traffic conditions with regard to both project related traffic and total area traffic which would result from other future growth in the area.

- The construction and improvement of the following roadways to their recommended master plan cross-section will be required to accommodate the anticipated traffic volumes that are projected from development within the Southwest Hemet study area:

TABLE 25

PARKING REQUIREMENTS

TYPE OF LAND USE	SPACES REQUIRED[1]	ORDINANCE 348[2]
Retail Store*	1 per 350 sq.ft. GFA**	1 per 250 sq.ft. GFA
Office Building	1 per 300 sq.ft. GFA	1 per 250 sq.ft. GFA
Restaurant (sit down type)	1 per 4.5 seats	1 per 45 sq.ft. of serving area
Single-Family Dwelling	2 per unit	1 per D.U.
Multi-Family Dwelling	1.75 per unit	1 per D.U.
Shopping Center 30,000-75,000 sq.ft. GFA	7 per 1,000 sq.ft. GFA	1 per 150 sq.ft. GFA

* Not in a shopping center.

** GFA - Gross Floor Area

SOURCE: [1] Traffic Engineering for Small Cities and Counties, Automobile Club of Southern California, p. 11.

[2] Riverside County Zoning Ordinance No. 348, Section 18.12.

Roadway	Master Plan Cross-Section
Sanderson Avenue	Major/Arterial
Stetson Avenue	Arterial
Acacia Avenue	Collector/Secondary
Harrison Avenue	Secondary/Major
Simpson Road	Secondary
Warren Road	Collector/Secondary
Cawston Avenue	Collector
Fischer Street	Collector
Lyon Avenue	Secondary/Major
Kirby Avenue	Collector/Secondary

- Construction of all planned local collector streets to the standards set forth in the Riverside County General Plan and the Hemet-San Jacinto General Plan.

- The installation of traffic signals at the following intersections will undoubtedly be warrented. These intersections would include Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue Sanderson Avenue and Acacia Avenue, Stetson Avenue and Cawston Avenue, Stetson Avenue and Warren Road, Sanderson Avenue and Harrison Avenue, Harrison Avenue and Lyon Avenue, and Kirby Avenue and Stetson Avenue. However, as previously discussed, the installation of traffic signals should be made only after positive identification of their need has been established and it is recommended that these intersections be evaluated as necessary prior to ultimate occupancy of the areas planned development.

- Promote ride-pooling (car-pools/van-pools) with regard to persons employed in any planned commercial and industrial activities. This would have the potential of reducing daily commuter traffic and on-site parking requirements.

- Demand-responsive (dail-a-ride) public transit should be encouraged. Where practical small vans or busses should be used. Provision of a public transit system will reduce potential auto travel, and provide mobility to those residents who are either too young to drive, do not drive, no longer drive, or are not capable of bicycling.
- The feasibility of expanding the Riverside Transit Agency's transportation service in the Hemet area should be considered.
- Control of access to the arterial and major street system as outlined in the Riverside County Subdivision Ordinance No. 460 should be encouraged. Control of access reduces the number of potential traffic conflicts, smoothes out traffic flow and increases traffic capacity.
- Provide sufficient off-street parking to meet anticipated demand for each planned use, taking into account the County zoning ordinances and the potential for overlapping or joint use of parking areas serving such complimentary land uses as may be developed.
- Provide separate bicycle and pedestrian pathways throughout the project as a means of promoting alternative forms of movement. For safety, convenience and efficiency, these systems should be separated from the vehicular traffic system and from one-another.
- Establish land use patterns, intensities and relationships which would reduce vehicle trip making characteristics and promote the use of alternative modes of travel such as bicycles, walking and transit. For example, increased residential densities adjacent to the planned commercial activities and open spaces designed with integral bike paths and pedestrian ways.

Unavoidable Adverse Impacts

Land Use Alternative No. 3 could produce an estimated 10,500 vehicle trip ends per day evenly distributed between inbound and outbound.

4.3.9 Open Space and Conservation

Land Use Alternative No. 3 would reduce the amount of open space in the Southwest Area by almost 45%. Over 1,590 acres of open space will be reclaimed for residential, commercial and industrial land uses. The remaining area will remain in the current agricultural and open space use. Development would be restricted on steep hillside slopes over 25%, consistent with the Hemet Open Space and Conservation Element.

The Salt Creek floodway will remain as open space; however, the channel will be altered by construction of a flood control channel. Portions of the flood plain may be lost as open space to residential development. The proposed improvements to Salt Creek will open up agricultural land to urban development possibilities. Development may occur within the floodway.

The southwest corner of the Southwest Area, which is unincorporated County land, is the only part of the project area with an agricultural preserve status. Portions of this agricultural preserve may be developed for residential use upon completion of the flood control channel. In addition, a major portion of the site includes Class I and II capability soils, considered prime agricultural land. This land will be lost as residential development of the area occurs. Agriculture has been of great value to the community, both in terms of economic gains and as a means of preserving open space. The loss of agricultural land is irreversible. The proposed residential development in the Southwest Area may encourage property values to rise on adjacent agricultural property, particularly County land in Diamond Valley to the east and land west of Hemet.

The Open Space and Conservation Element recommends a community park of between 30 and 40 acres to serve Hemet and the developments serving the City. The Southwest Area has the potential for development of park facilities concurrent with residential development. Using the standard of 2.5 to 3 acres of open space per 1,000 population, this land use alternative could create a need for 40 to 48 acres of neighborhood parks.

Mitigation Measures

Open space should be valued as an essential complement to urban living and considered within all future development proposals. Development subdivision practices which foster open space and conservation concepts (such as clustering, zero lot lines and coverage incentives) should be encouraged.

Policies should be formulated to encourage participation in the Williamson Act Preservation Program, granting tax relief to owners of agricultural property who agree not to develop their land for a minimum of 10 years. Additional incentives should be provided for agricultural land owners holding less than 100 acres who are not eligible for preservation status and the economic security it provides.

Unavoidable Adverse Impacts

Land Use Alternative No. 3 would reduce the amount of open space in the Southwest Area by approximately 45 percent.

4.3.10 Public Services and Utilities

4.3.10.1 Fire Protection

Development resulting from Land Use Alternative No. 3 will impact the City of Hemet Fire Department by requiring additional manpower and equipment. The increased demand on the Department will make it necessary to provide additional stations in the southwest and northeast areas of the City. One station is proposed to be located near the airport industrial area, probably on Stetson Avenue. Another station is proposed to be constructed in the vicinity of Menlo and Sanderson Avenue.* Based on a rate of one firefighter per 1,000 population, Land Use Alternative No. 3 could necessitate the addition of 16 firefighters in the Southwest Area.

Development in the Southwest Area will increase response times and number of calls. New construction that occurs adjacent to existing development in the City is more easily serviced than more remote areas. Developments that encroach upon the flight paths and those surrounding the airport may be subject to aircraft crashes.

Mitigation Measures

New development should be located adjacent to existing developed areas, rather than in remote fringe areas, to minimize the response time. Adequate design features should be incorporated into all new developments.

Unavoidable Adverse Impacts

The increased demand will require additional manpower and equipment.

4.3.10.2 Police Protection

Development resulting from Land Use Alternative No. 3 will impact the City of Hemet Police Department by generating an increased demand for manpower and equipment. At this time, the Police Department has a need for five more officers for traffic enforcement and specialized burglary patrol. Land Use Alternative No. 3 could generate a population growth of 16,040 people in the Southwest Area, thus necessitating a minimum of 23 additional officers, based on a rate of 1.45 officers per 1,000 persons. Crime prevention and traffic control will become more unmanageable if the present trend continues.

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* Richard Feuerstein, Assistant Fire Chief, City of Hemet Fire Department.

Mitigation Measures

New development should be located adjacent to existing developed areas, rather than in remote fringe areas, to minimize the response time. Adequate street and security design features should be incorporated into all new developments.

Unavoidable Adverse Impacts

The increased demand will require additional manpower and equipment.

4.3.10.3 Schools

Land Use Alternative No. 3 would impact the Hemet Unified School District by generating additional students. The school system has no excess capacity; therefore, any new development would require school construction. The 1977-1978 enrollment at Hemet Senior High School exceeded the school's capacity by nearly 80 students. The school system does not have a student generation rate due to the unusual composition of the population of Hemet. Based on the 1975 ratio of 15.4 students per 100 population, this land use alternative could generate 2,470 additional students. This ratio has remained fairly constant since 1975. Overenrollment is expected to continue at a 3 percent annual growth rate. There are no immediate plans or financing provisions for increasing the capacity of schools in the district. In addition, most of the students generated by residential development in the Southwest Area will be located outside the maximum walking distance to associated schools. Therefore, additional bus service will also be required.

Mitigation Measures

Student generation rates are uncertain at this time. SB 201, relating to builder contributions to the school system, may be a means of purchasing relocatable classrooms and putting them on existing sites. However, the cost may be prohibitive under the developer assessment program.

Unavoidable Adverse Impacts

This Land Use Alternative could generate 2,470 additional students, requiring new school construction.

4.3.10.4 Hospital and Emergency Services

It is expected that this land use alternative will require 56 additional beds at the Hemet Valley Hospital, based on a factor of 3.5 beds per 1,000 people. The hospital is currently operating at near capacity; however, an additional medical-surgical unit of 90 beds is expected to be completed by April of 1979. The new unit will accommodate the project demands created by this alternative.

Mitigation Measures

The new medical-surgical unit will mitigate the additional demand created by the project.

Unavoidable Adverse Impacts

This alternative will increase demand for hospital and emergency services.

4.3.10.5 Electricity

Electrical service will be provided to the development proposed by Land Use Alternative No. 3 through extension of the electrical distribution facilities located along the south side of Stetson Avenue. This Land Use Alternative is expected to generate a peak demand of 107,433 kilowatts, based on the following demand rates:*

Single-family	10 KW/DU X 6353 DU =	63,530 KW
Multiple-family	5 KW/DU X 4300 DU =	21,500 KW
Mobile Home	5 KW/DU X 1985 DU =	9,925 KW
Commercial	7 Watts/Sq.Ft. X 129,750 Sq.Ft. =	908 KW
Industrial	4 Watts/Sq.Ft. X 2,892,384 Sq.Ft. =	11,570 KW
TOTAL		107,433 KW

Electrical consumption represents a use of a non-renewable natural resource, e.g., low sulfur fuel oil. The use may be considered an irreversible impact from the proposed development. The extension of additional electric service to the Southwest Area may be considered growth-inducing.

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* Ultrasystems Planning Factors.

The major fuel used in Southern California Edison Company's generating facilities is low sulfur fuel oil. The inventory of low sulfur fuel oil, combined with contractual agreements for delivery and electric customers' conservation effects, is expected to allow Southern California Edison Company to meet peak demand through 1977. Ability of Southern California Edison Company to meet peak demand periods after 1980 is dependent upon plans to proceed with construction of new generating facilities, since total system demand is expected to increase annually.*

Mitigation Measures

Energy conservation measures should be required to minimize the loss of low sulfur fuel oil, a non-renewable natural resource. Southern California Edison Company should be consulted to incorporate energy conservation measures into future development proposals.

Generally, energy conservation measures include application of solar energy for water heating, use of energy-efficient appliances, building insulation, and energy conserving design of common facilities. Refer to Section 4.3.11 regarding energy mitigation measures.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for electrical distribution lines and service.

4.3.10.6 Gas

The Southern California Gas Company will provide service to the Southwest Area through extension of the gas supply line located in Florida Avenue. The existing supply line system has approximately 20% excess capacity over present requirements, a capacity for 7,000 people.** Land Use Alternative No. 3 could generate 16,040 people, thereby exceeding the current capacity of the service system. This land use alternative is expected to consume 100.7×10^6 cubic feet of gas per month, based on the following consumption rates:***

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* H. E. Ashford, District Manager, Southern California Edison Company.
** R. C. Wright, Distribution Planning Supervisor, Southern California Gas Company.
*** City of Los Angeles, EIR Manual for Private Projects, 1975. Upated, 1976.

Single-family	9,125 cu.ft/DU/Mon X 6353 DU =	57.9×10^6 cu.ft./Mon
Multiple-family	5,330 cu.ft/DU/Mon X 4300 DU =	22.9×10^6 cu.ft./Mon
Mobile Home	5,000 cu.ft/DU/Mon X 1985 DU =	9.9×10^6 cu.ft./Mon
Commercial	3.5 cu.ft/sq.ft./Mon X 129,750 Sq.Ft. =	$.45 \times 10^6$ cu.ft./Mon
Industrial	3.3 cu.ft/sq.ft./Mon X 2,892,384 Sq.Ft. =	9.5×10^6 cu.ft./Mon
TOTAL		100.7×10^6 cu.ft./Mon

The local distribution systems will require expanding. The timing and location of future reinforcements will depend on the actual growth rate and pattern. As a public utility, the Southern California Gas Company is regulated by the California Public Utilities Commission. They are also affected by actions of federal regulatory agencies. Should these agencies make any policy or rule changes that affect gas supply or conditions under which service is available, gas service would be provided to the area in accordance with the revised rules.

Mitigation Measures

Energy conservation measures should be required to minimize the loss of a valuable, non-renewable natural resource. Consultation should be made with the Southern California Gas Company to implement conservation measures. Possible energy conservation measures include application of solar energy for water heating, use of energy efficient appliances, building insulation and energy conserving design. Refer to Section 4.3.11 regarding energy mitigation measures.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for natural gas and distribution lines.

4.3.10.7 Water

The Eastern Municipal Water District (E.M.W.D.) will provide domestic water to the project through extension of existing service lines in the Southwest Area. The specific capacity of the system could not be quantified without a detailed study, but E.M.W.D. indicated that the distribution system was probably operating near capacity. At present, 75 percent of the water supplied

by E.M.W.D. is sold for agricultural use. Domestic use has the primary claim to the imported Colorado River water supply of E.M.W.D. and the Metropolitan Water District of Southern California. In the event of a serious water problem, the Metropolitan Water District of Southern California has a formula for the allocation of the water it imports.*

The transition of the Southwest Area from irrigated agriculture to domestic use will not require appreciably more water than is currently being used.

Water consumption for Land Use Alternative 3 is estimated to be 65,635,143 gallons per month, based on actual City water use as follows:**

Single-family	6308 gal/DU/Mon	X	6353 DU =	40,074,724 gal/Mon
Multiple-family	4313 gal/DU/Mon	X	4297 DU =	18,532,961 gal/Mon
Mobile Home	3435 gal/DU/Mon	X	1985 DU =	6,818,475 gal/Mon
Commercial	855 gal/CU/Mon	X	65 CU =	55,575 gal/Mon
Industrial	1088 gal/IU/Mon	X	141 IU =	153,408 gal/Mon
TOTAL				65,635,143 gal/Mon

Impacts from the project upon water quality will be due to sewage generated by project residents.*** Reclaimed wastewater is used for irrigation water and percolates through the soil to the groundwater level. Total dissolved solids are not reduced as the water percolates through the soil. Nitrates may be a problem.**** Groundwater quality is monitored, and E.M.W.D. is working with the Regional Water Quality Control Board on a long-term solution to water quality problems.

Mitigation Measures

Efforts toward water conservation should be made. Possible measures include:

- Landscape watering during early morning hours or during the evening to reduce water loss from evaporation.
- Selection of drought-tolerant plants in landscaping.
- Use of plumbing fixtures which will reduce water loss or consumption.

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* James H. Bunts, Jr., Eastern Municipal Water District.
** "Fiscal Impact Analysis Southwest Area," Ultrasystems.
*** Kevin Kozad, Eastern Municipal Water District.
**** Ibid.,.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for domestic water.

4.3.10.8 Sewage

Sewage collection and treatment will be provided to the proposed land uses, through extension of existing City and Eastern Municipal Water District (E.M.W.D.) facilities. The Hemet-San Jacinto Regional Water Reclamation Facility has a present capacity of 5 MGD, leaving an unused capacity of 1.5 MGD. The 21-inch main sewer line in Stetson Avenue has a 3 MGD capacity, leaving an unused capacity of 2.75 MGD. Land Use Alternative No. 3 is expected to generate 1.9 MGD, based on the following generation rates:*

Residential	100 gal/person/day X 16,040 =	1,604,000 gal/day
Commercial	100 gal/1,000 sq. ft./day X 129,750 sq. ft. =	12,975 gal/day
Industrial	100 gal/1,000 sq. ft./day X 2,892,384 sq. ft. =	289,238 gal/day
TOTAL		1,906,213 gal/day

The proposed land use alternative will impact the E.M.W.D. facilities by generating sewage in excess of the existing system capacities. A sewage treatment plant is planned for the Winchester area to serve the Southwest Area and the southern part of the Valley, although a date is not available for the construction of this plant.

Mitigation Measures

Mitigation measures are closely related to water conservation measures mentioned in the previous section.

Unavoidable Adverse Impacts

The proposed land use alternative will generate sewage amounts close to the existing system capacities.

* Ultrasystems Planning Factors.

4.3.10.9 Telephone

Telephone service will be available to serve the proposed land uses, through extension of existing distribution lines. The proposed land uses will not cause a significant impact on the plans of the telephone company for providing service to the area, provided that growth occurs in increments.

Mitigation Measures

No mitigation measures are proposed.

Unavoidable Adverse Impacts

The proposed land use alternative will result in increased demand for telephone services.

4.3.10.10 Solid Waste

Refuse collection services will be provided by the City of Hemet. Refuse collection is mandatory at a frequency of two times per week.

On-site generation of solid waste resulting from Land Use Alternative 3 is estimated to be 100,543 pounds per day or 50.3 tons, based on the following generation rates:*

Residential	2.5 lb/person/day X 16,040 persons =	40,100 lb/day
Commercial	2 lb/day/100 sq. ft. X 129,750 sq. ft. =	2,595 lb/day
Industrial	2 lb/day/100 sq. ft. X 2,892,384 sq. ft. =	57,848 lb/day
TOTAL		100,543 lb/day

The two landfill sites serving the Southwest Area will be impacted by the solid waste generated; however, the life of the landfills are projected beyond the year 2000.

Mitigation Measures

Separation of wastes at the source could be encouraged to facilitate resource reclamation and recycling efforts.

Unavoidable Adverse Impacts

This alternative will result in an increased burden upon landfill sites.

* Riverside County Waste Disposal Division.

4.3.11 Energy

Implementation of the proposed land uses will result in consumption of non-renewable energy resources, both in the short-term and in the long-term.

Short-term impacts include use of non-renewable energy resources during the construction phase of the proposed project. Fossil fuels will be used to operate construction machinery as well as to transport workers to and from the project site. Since construction materials themselves have required the consumption of energy for their production, use of construction materials also represent consumption of energy resources.

Long-term impacts due to project implementation include consumption of gas and electricity for heating, cooking and water heating (see section regarding Public Services and Utilities). Long-term impacts also include the consumption of gasoline.

The amount of fossil fuels burned for production of electricty to serve the project can be estimated, as can the amount of natural gas burned. Residents of the proposed project are estimated to consume 12,139,686 kwh/month or 145,680,000 kwh/year. Using the formula below it has been calculated that an estimated 10,010,175 gallons of low sulfur fuel oil is necessary to generate the required electric power.

$$\frac{145{,}680{,}000 \text{ kwh}}{\text{Year}} \times \frac{10{,}387 \text{ BTU}}{\text{kwh}} \times \frac{\text{lb.}}{19{,}000 \text{ BTU}} \times \frac{\text{gal.}}{7.956 \text{ lb.}}$$

$$= 10{,}010{,}175 \text{ gallons/year}$$

Natural gas combustion has been estimated at 100.7×10^6 cubic feet per month.

Mitigation Measures

Energy Conservation. The commercial and industrial buildings in the project area should be designed for optimum energy-efficiency in accordance

with Energy Conservation Standards for New Non-Residential Buildings* adopted by the State of California Energy Commission on February 5, 1976.

The new regulations prescribe energy conservation standards for non-residential buildings in California. Specifically, the regulations include energy saving designs for roof, wall, and floor installations, and also contain lighting, heating and air conditioning and hot water supply specification standards. The regulations encourage the use of solar and wind power and other non-depleting energy sources. They offer builders the option of utilizing any building design that consumes less energy than the standard design described in the regulations. The regulations will be enforced by local building officials through the permit process.

Energy consumption in non-residential buildings is determined by interior heating and cooling requirements. The major climate influence in the Hemet area is that of the Continental Air Mass, with the ocean determining the climate no more than 15 percent of the time. Two climates occur within the Hemet Valley area. Cold air basins are formed in the valley, where the project site is located.

The overall climate in the San Jacinto area is defined as semi-arid. Yearly rainfall averages 12.81 inches. On the average nine inches, or seventy percent of the total, falls in the four months, December through March. According to State Climatologist, the average temperature in the area over a period of a year is 62.4^{o}. The average high is nearly 99° in July and the low is 34.5^{o} in January. The prevailing winds are from the southwest and, according to the Riverside County Department of Development, the mean hourly speed is nineteen miles per hour.

The State Energy Resources Conservation and Development Commission has adopted regulations establishing energy conservation standards for new residential buildings. These regulations took effect July 1, 1978 after which

* Energy Conservation Standards for New Non-Residential Buildings. Regulations establishing energy conservation standards for new non-residential buildings, adopted by the State Energy Resources Conservation and Development Commission pursuant to Sections 19878-19878.8 of the Health and Safety Code and Section 25402(a) of the Public Resources Code are contained in California Administrative Code, Title 24, Part 6, Division T20, Chapter 2, Subchapter 4, Article 2, Sections T20-1450 to T20-1550.

no new residential building permits may be issued unless the building design is in compliance with the new standards. The Energy Commission has developed a Residential Energy Conservation Manual to assist designers, builders, building officials and contractors in interpreting and implementing the new standards. Provisions for life cycle cost comparison of electric, natural gas, and solar space and water heating systems are included in the standards.

The Energy Commission has also adopted energy conservation standards covering new appliances. In accordance with these standards, no new appliance manufactured after the effective dates provided in the standards may be sold in California unless certified by the manufacturer to be in compliance with the new standards. The appliances covered under the standards include gas fired, forced air control furnaces, gas cooking appliances, gas clothes dryers, room and central air conditioners, refrigerators and freezers, and gas hot water heaters.

Unavoidable Adverse Impacts

Implementation of this land use alternative will result in consumption of non-renewable energy resources, both in the short-term and in the long-term.

4.4 Land Use Alternative No. 4 - Impacts and Measures Which May Mitigate or Enhance Impacts

Summary of Land Use Alternative No. 4

Land Use Alternative No. 4, as shown in Figure 35, lets market trends govern growth in the Southwest Area through the following assumptions:

1) Requires a change in the Noise Element by restricting residential development within the 60 Ldn noise contour of Hemet-Ryan Airport.

2) Allows existing flood problems to be mitigated with construction of a flood control channel.

3) Residential development of floodway land would be permitted.

4) Restricts development on steep hillside slopes.

5) Maximum growth of 26,540 people on 2,643 acres suitable for residential development. Gross densities of 7.4 people/acre and 3.9 dwelling units/acre allowed.

6) Includes 88 acres of industrial and 27 acres of commercial land uses.

7) Open space limited to flood control channel, golf course and steep slopes or 15 percent of the area.

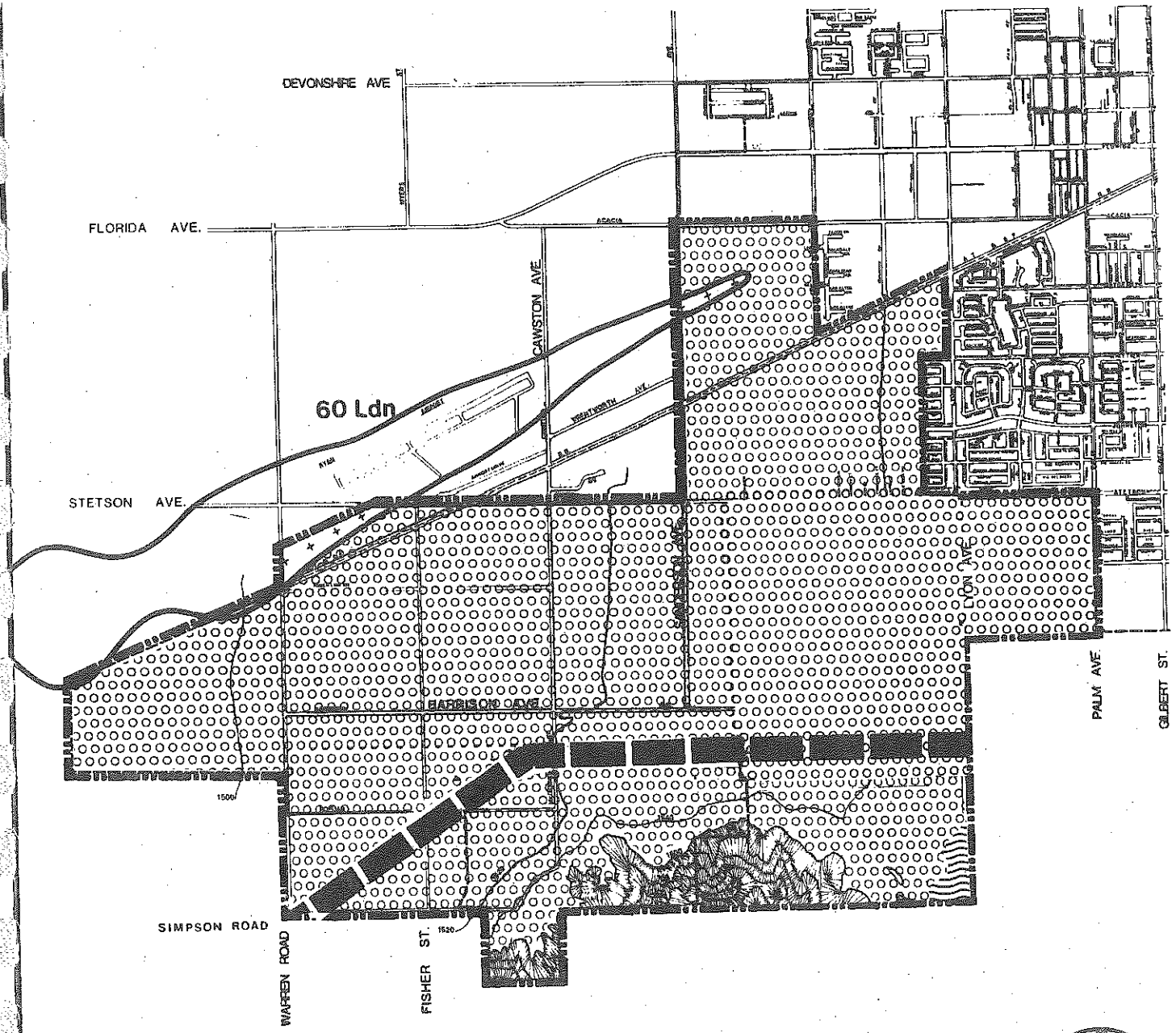
8) Would not encourage redevelopment of existing City area. Would allow a "second" city the size of the developed portion of Hemet to occur if phasing of growth is not controlled. Downtown areas could be in danger of deterioration.

9) May not provide the necessary protection of the airport from encroachment and may not protect residential development from airport noise.

4.4.1 Land Use

Zoning

Land Use Alternative No. 4 would require zone changes in portions of the existing Residential Agriculture zone to allow for the increased residential densities proposed. Residential land use areas would be extended by allowing residential development outside the 60 Ldn noise contour of Hemet-Ryan Airport.



60 Ldn NOISE CONTOUR

ULTIMATE FLOOD CHANNEL

FLOOD PLAIN 100-YEAR INUNDATION

NON-RESIDENTIAL USES

RESIDENTIAL USES AVG. 5.4 DU/ACRE

0' 3000' 6000'

NORTH

Source: ULTRASYSTEMS INC.

Title: ALTERNATIVE 4 LAND USE MAP

35

Development would also be restricted on steep hillside slopes. Construction of the flood control channel would permit residential development within the floodway. Zoning designations would have to reflect these land use constraints. The existing zoning allows a maximum population of 22,370 people. This alternative could generate a population growth of 19,560 people in Hemet and 4,170 people in the County, or a total of 26,540 people in the Southwest Area. The area suitable for Industrial uses would be reduced to within the 60 Ldn noise contour.

General Plan

Land Use Alternative No. 4 will deviate from the existing General Plan by allowing population growth in the Southwest Area. This plan allows market trends to limit potential growth in the Southwest Area while providing 2,226 acres of land suitable for residential development in Hemet and 417 acres suitable for residential development in the County. Maximum gross densities allowed would be 7.4 people/acre and 3.9 dwelling units per acre. The current General Plan requires a 2 acre minimum lot size with an allowable density of one dwelling unit per two acres.

This alternative will require a change in the existing Noise Element of the General Plan by restricting residential development within the 60 Ldn noise contour of Hemet-Ryan Airport. This change in the Noise Element will not provide the airport with protection from encroachment and incompatible uses. Within the 60 Ldn noise contour, less land will be available for industrial and agricultural uses. This alternative deviates from the Hemet-Ryan Land Use Plan which permits low density residential uses (0-.4 DU/AC) within the 55 Ldn noise contour, provided that average interior noise levels will not exceed 45 dB.

Due to the reduced land use constraints, more land will be available for residential development. Open space and agricultural land uses will be reduced to only 15 percent of the project area, including the flood control channel, golf course and steep slopes. By increasing the growth capacity of the Southwest Area, redevelopment and infill of existing developed areas in Hemet would not be encouraged. This alternative would allow a "second city: the size of the developed portion of Hemet to occur if phasing of growth is not controlled. Downtown areas could then be in danger of deterioration.

In accordance with the Hemet Open Space and Conservation Element, the steep hillside slopes will be preserved as a scenic resource.

Mitigation Measures

The effects of the increase in density could be mitigated to some extent by the use of multiple and cluster housing which provides increased open space.

There should be early coordination between Riverside County, LAFCO and the City of Hemet to assure that future development of unincorporated area surrounding Hemet either be annexed into the City or conform with the Hemet General Plan. This coordination between these jurisdictions will provide the City with necessary planning controls mitigating incompatible land uses and conflicting development standards.

Unavoidable Adverse Impacts

Open space will be reduced to 15% of the Southwest Area. Approximately 1,863 acres of prime agricultural land will be lost.

4.4.2 Archaeology

Proposed construction related activities could constitute adverse impacts to the archaeological resources discovered at the RIV-1162 site. In addition, resources may be present on unsurveyed portions of the Southwest Area and will also be subject to destruction. The flood control channel in Salt Creek would be constructed through the RIV-1162 archaeological site. Destruction, impairment or removal of artifacts and features on the survey site will result from construction of the channel unless proper mitigation measures are taken. The old cemetary on Stetson Avenue is not expected to be impacted by the project. Once approved, new construction in the Southwest Area could then add pressure to develop adjacent areas east and northwest of the site where archaeological findings have appeared and areas of Indian activity have been recorded. The entire Page Ranch property and the Sundberg property at Stetson and Cawston have been surveyed by a qualified archaeologist. These properties do not contain archaeological resources.

Mitigation Measures

The RIV-1162 archaeological site should be resurveyed for collection of any surface debris. Based on these findings, a final report should be prepared to provide mitigation measures and recommendations. In addition, future development sites must be surveyed for archaeological resources and mitigation measures recommended on the basis of future finds.

Unavoidable Adverse Impacts

Possible destruction, impairment or removal of artifacts and features.

4.4.3 Vegetation and Wildlife

Biological resources in the Southwest Area have previously been disturbed by agricultural uses. However, the project will impact the existing vegetation and wildlife on the site by construction related clearing of vegetation and alteration of topography during site preparation. The presence of structures, roads and human activity will also impact wildlife after construction. The project will result in the dislocation or destruction of existing vegetation and wildlife species on the site.

Only 15% of the Southwest Area will be preserved as open space, including the flood control channel, golf course and steep hillside slopes. However, even these remaining open space areas will be disturbed by the adjacent construction and resident activities. Landscaping will result in the introduction of plant species not present now and may attract animals that are now infrequent or absent. Watering and fertilizing of lawns will allow new species of plants to grow in areas adjacent to the lawns. The presence of structures and fences will restrict the movement of coyotes, rabbits and other mammals and amphibians.

Mitigation Measures

The proposed preservation of 15% of the site as open space will somewhat mitigate the impact upon vegetation and wildlife. The natural and undisturbed areas will provide a habitat for wildlife to relocate. Biological resources surveys, prior to development would provide assurance that no rare or endangered plant and wildlife species will be disturbed.

Unavoidable Adverse Impacts

Existing vegetation and wildlife species in the Southwest Area will be dislocated or destroyed.

4.4.4 Climate and Air Quality

Short-term Impacts

The construction phase of developments associated with the project will produce two sources of air pollution emissions. These are exhaust emissions from construction and grading equipment and dust generated as a result of earth movement and equipment traffic over dust ladden roads. The dust emissions may cause a nuisance to any persons who reside or park motor vehicles in the vicinity of the project. However, the emissions will be of short-term duration.

Long-term Impacts

Long-term impacts associated with the project consist of emissions generated by the following sources:

Stationary	Mobile
Off-site generation of electricity for project. On-site use of natural gas for cooking, space heating, and water heating.	Motor vehicles

Stationary Sources

Stationary on-site emissions from natural gas combustion associated with the project are presented in Table 26. As shown in the Table the contribution of project on-site stationary emissions to the total emissions projected for the project area is nearly negligible.

The stationary emissions resulting from the project electrical energy demand will occur off-site at electrical power generating plants (nuclear, oil, and hydroelectric) located throughout the utilities generating network. The total emissions due to the generation of electricity for this project are given in Table 27 assuming the power is provided by an oil burning power plant.

TABLE 26

LAND USE ALTERNATIVE NO. 4

EMISSIONS FROM USE OF NATURAL GAS (ON-SITE)

POLLUTANT	EMISSION FACTOR* LBS/1000 FT^3	PROJECT EMISSIONS** LBS/DAY	TOTAL 1995 EMISSIONS FOR RIVERSIDE COUNTY*** TONS/DAY	PERCENT OF TOTAL COUNTY EMISSIONS
Carbon Monoxide	Negl	Negl	203	Negl
Total Hydrocarbons	Negl	Negl	40	Negl
Nitrogen Oxides	0.116	617	48	0.6
Sulfur Oxides	Negl	Negl	6	Negl
Particulates	0.018	96	29	0.2
TOTAL (Average)	--	713	326	(Negl)

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.

** Assumes 159.7 million cubic feet of gas/month.

*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

Negl = Negligible

TABLE 27

LAND USE ALTERNATIVE NO. 4
EMISSIONS ASSOCIATED
WITH ELECTRICITY GENERATION (OFF-SITE)

POLLUTANT	EMISSION FACTOR* LBS/1000 KWH	PROJECT EMISSIONS** POUNDS/DAY
Carbon Monoxide	0.2	117
Total Hydrocarbons	0.18	105
Nitrogen Oxides	2.3	1,340
Sulfur Oxides	2.6	1,516
Particulates	0.401	233
TOTAL	--	3,311

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.
** Assumes 17.5 million KWH/month.

Mobile Sources

An estimate of the total motor vehicle emissions generated by traffic associated with the proposed project is shown in Table 28. As indicated in the Table, the average contribution of project motor vehicle emissions to the total projected emissions for Riverside County for the year 1995 is about 0.2 percent upon project completion.

Total Emissions

The total pollutant emissions associated with the project are presented in Table 29.

Mitigation Measures

1. Normal wetting procedures should be followed during the site grading operations to reduce dust emissions.

2. The Southern California Association of Governments (SCAG) and South Coast Air Quality Management District are currently preparing in cooperation with City and County governments an Air Quality Management Plan (AQMP) designed to achieve and maintain Federal and State air quality standards within the South Coast Air Basin. The AQMP is to be submitted for approval to the State Air Resources Board by January 1979 prior to submittal to EPA as a revision to the State's Implementation Plan. The AQMP is to identify the need for further control of stationary and mobile sources, alternate transportation strategies, and measures to reduce adverse air quality impacts associated with further growth and development. The proposed project should be reviewed for consistency with the objectives of the AQMP if finalized prior to project approval.

3. Provide for convenient bus stop locations.

Unavoidable Adverse Impacts

There will be additional emissions emitted in the southeastern portion of the South Coast Air Basin. These emissions will result in an incremental decrease in the quality of the air.

TABLE 28

ESTIMATED MOTOR VEHICLE EMISSIONS
ASSOCIATED WITH LAND USE ALTERNATIVE NO. 4

POLLUTANT	EMISSION* FACTOR (GRAMS/MILE)	ESTIMATED EMISSIONS** (LBS/DAY)	TOTAL 1995 EMISSIONS FOR RIVERSIDE COUNTY TONS/DAY***	PERCENT OF TOTAL COUNTY EMISSIONS
Carbon Monoxide	3.8	5,378	203	1.3
Nitrogen Oxides	0.7	991	48	1.0
Hydrocarbons	0.5	708	40	0.9
Sulfur Oxides	0.1	142	6	1.2
Particulates	0.3	425	29	0.7
TOTAL (Average)	--	7,644	326	(1.2)

* 1995 Emission Factors, Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.
** Assumes 642,500 vehicle miles traveled.
*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

TABLE 29

ESTIMATED TOTAL EMISSIONS
LAND USE ALTERNATIVE NO. 4

POLLUTANT	TOTAL EMISSIONS LBS/DAY
Carbon Monoxide	5,495
Total Hydrocarbons	853
Nitrogen Oxides	2,948
Sulfur Oxides	1,658
Particulates	754
TOTAL	11,708

4.4.5 Geology and Soils

Development on the flat alluvial valley area will result in only slight immediate impact as development will be phased over many years. However, construction of a fully improved flood control channel will require significant amounts of landform alteration.

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone. The Southwest Area is about 2 miles from the San Jacinto Fault Zone and is underlain by alluvium of intermediate thickness. Earthquake shaking is expected to be strong to severe as a result of movement on any one of several faults within the San Jacinto Fault Zone. Settlement of soils due to ground-shaking could pose a major hazard, especially in areas of fill. Slippage and landslide could possibly occur in the Domenigoni Mountains. The "Land Use/ Risk Matrix" in the City of Hemet Seismic Safety and Public Safety General Plan Elements (1976) indicates that light industrial, low-density residential, warehousing and storage, and agriculture and park uses are "provisionally suitable" for most of this area. The increased residential densities proposed would expose a greater population to the risk of human and structural loss.

Mitigation Measures

Engineering geologic investigations should be required for all new construction within the Southwest Area. Construction according to the Earthquake Regulations of the Uniform Building Code and recommendations of a qualified structural engineer should mitigate the risk of human and structural loss.

Unavoidable Adverse Impacts

There is a significant hazard to structures and people in the Southwest Area due to the proximity to the active San Jacinto Fault Zone. The landform will be altered by grading for structures and flood control improvements.

4.4.6 Hydrology

Under this alternative land use plan, a fully improved, Salt Creek Channel would be constructed from Lyon Avenue to Highway I15E, designed to

provide protection against 100 year frequency storms upon complete development of the Hemet area watershed. The ultimate channel right-of-way is expected to be 520 feet with a 230 foot base width. Channel excavation would be placed in spoil banks adjacent to the channel. Portions of this discussion were exerpted from the Draft EIR, Hemet Area Drainage and Salt Creek Channel Improvements.*

All lines proposed in the Hemet Area Master Drainage Plan would be constructed, as previously shown in Figure 13. Underground storm drains would be designed to carry the predicted runoff from 10 year frequency storms. The balance between 10 year and 100 year frequency storm runoff is carried in the streets. The street flows are discharged with the flow in the underground drains into open channels which are designed to accept 100 year storm runoff. Lines "A" and "D" will be enlarged to ultimate size downstream of Cawston Avenue. The principle design capacity of Hemet Channel will be 9500 CFS at its confluence with Salt Creek Channel. Salt Creek Channel will have a design capacity of 9200 CFS to Hemet Channel and 11,700 CFS from the Hemet Channel to Highway L15E.

The improvement of the Salt Creek Channel to the ultimate capacity of 11,700 CFS for the reach from Highway I15E to the Hemet Channel confluence, will obviously provide greater flood protection than an interim channel with a capacity of 1500 CFS. The breadth of flood flows during 100 year to the confines of the channel. Thus, the hazard of flooding will be diminished for land within the Salt Creek flood plain and floodway. Since the Riverside County standard protection level for developments, specified in the Subdivision Ordinance, is for protection against 100 year frequency storms, the improved channel will remove a major obstacle to development in a number of areas in both the City and County. Therefore, the removal of the flood hazard will have a growth-inducing impact on the Southwest Area.

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* Alderman, Swift & Lewis Consulting Engineers, 1977.

Mitigation Measures

Both the City and the County have mechanisms to control and guide the development of flood plain area as proposed in the Land Use, Conservation and Open Space Elements of the County and City General Plans. The Federal Flood Insurance Program will mitigate the flood hazard.

Recreational areas and landscaping should be developed in flood channel areas to prevent adverse visual impacts. Flood control structures should be designed with equal sensitivity for aesthetics and utility.

Construction impact mitigation measures include:

1) Limit heavy construction to week days between the hours of 7:00 AM and 6:00 PM.

2) Use water and temporary paving to prevent dust.

3) Reduce air pollution by using well maintained equipment.

4) Reduce traffic problems by advance planning of construction and the use of appropriate traffic regulation and control devices and by using flagmen if necessary.

5) Conserve energy needed for construction by using proper equipment and properly maintained equipment and by avoiding unnecessary trips and shuttle runs.

6) Mitigate stored equipment and material problems by appropriate security measures.

Unavoidable Adverse Impacts

The natural Salt Creek Channel will be replaced with man-made flood control facilities; however, the natural channel has been previously altered by farming operations and flood hazard will be reduced.

4.4.7 Noise

Impacts

The noise impacts considered in this section result from the following noise sources:

- GRADING AND CONSTRUCTION EQUIPMENT.
- FARMING EQUIPMENT.
- FUTURE AIRCRAFT OPERATIONS AT HEMET-RYAN AIRPORT.
- TRAIN TRAFFIC.
- FUTURE HIGHWAY TRAFFIC.

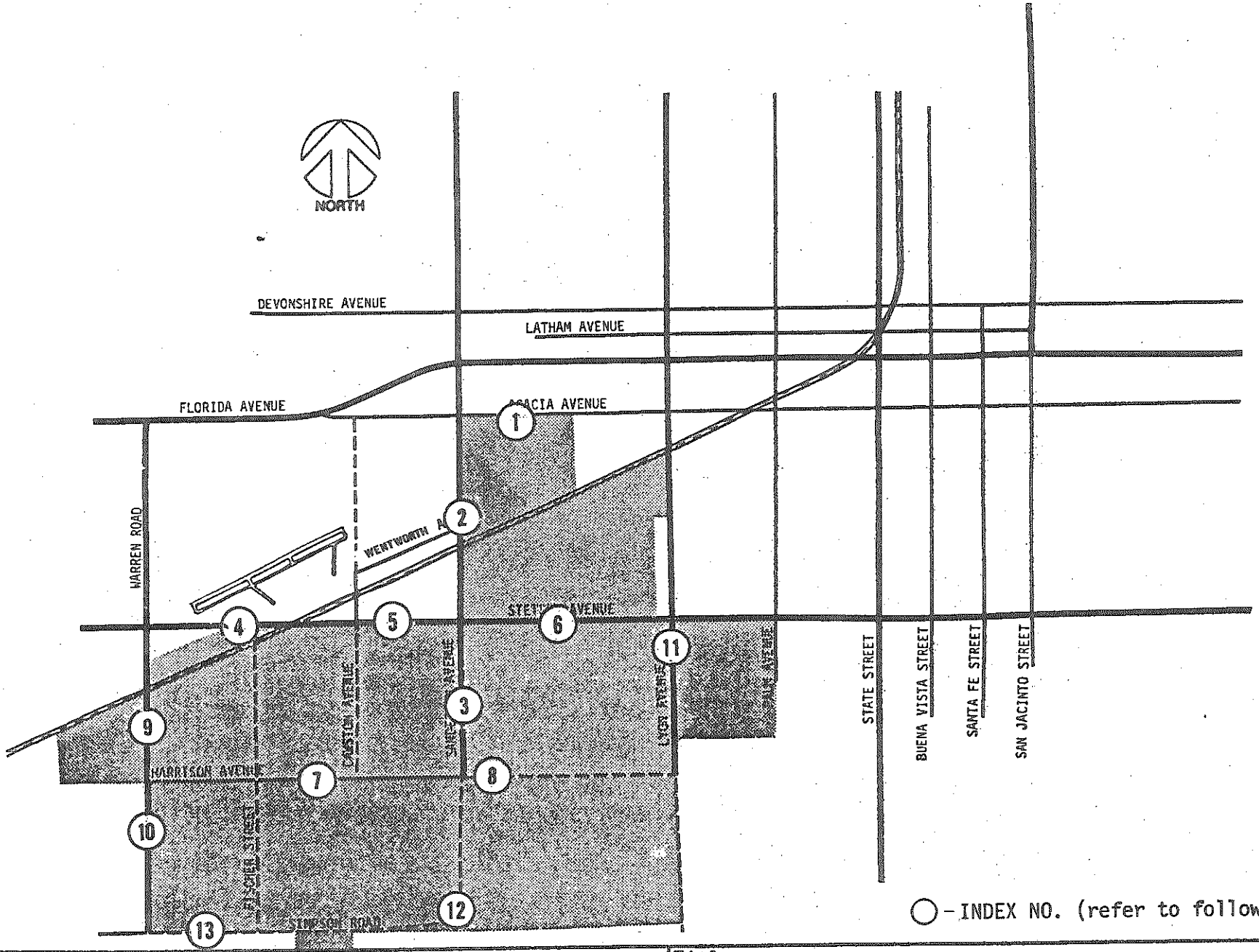
Development within the Southwest Area is expected to take place through the year 2000. Due to the phasing of residential development, the following interim noise impacts could be expected:

1) Short-term impacts due to grading and construction activities could occur within noise-sensitive uses such as residences and schools which would be in close proximity to construction activities. Noise impacts would be nuisance-oriented; i.e., annoyance, speech-communication interference, and sleep interference (for individuals who normally sleep during daytime hours). Because construction activity is generally limited to daytime hours, no adverse noise impact would be expected during the nighttime period.

2) Residential uses (receptors) located within the Southwest Area immediately adjacent to agricultural uses could experience adverse noise impacts due to late evening and early morning alfalfa harvesting activities. The primary noise impact would be sleep interference.

In an effort to minimize potential adverse noise impacts associated with aircraft operations at Hemet-Ryan Airport, the City of Hemet has established a set of land use compatability criteria. Under Land Use Alternative 4, residential development will not be permitted within an environment which has an annual average L_{dn}* of 60 dBA or greater (see Figure 35). In comparison,

* Refer to Appendix A for an explanation of community noise exposure levels.



Source:

ULTRASYSTEMS, INC.

Title:

LAND USE ALTERNATIVE 4
NOISE IMPACTED ROADWAY SEGMENTS

36

TABLE 30

CALCULATED L_{dn} EXPOSURE LEVELS

(LAND USE ALTERNATIVE 4)

INDEX NO.	ROADWAY SEGMENT	DISTANCE TO NOISE CONTOURS EXPRESSED IN FEET FROM CENTERLINE OF ROADWAY		
		55 dBA	60 dBA	65 dBA
1	Acacia-East of Sanderson	129	60	28
2	Sanderson-Acacia/Stetson	350	163	75
3	Sanderson-Stetson/Harrison	301	140	65
4	Stetson-East of Warren	272	126	59
5	Stetson-West of Sanderson	354	164	76
6	Stetson-East of Sanderson	414	192	89
7	Harrison-Warren/Sanderson	251	117	54
8	Harrison-East of Sanderson	100	46	22
9	Warren-North of Harrison	273	99	46
10	Warren-South of Harrison	257	119	55
11	Lyon-South of Stetson	245	114	53
12	Simpson-South of Harrison	417	193	90
13	Simpson-Warren/Fisher	171	78	37
14	Cawston-Stetson/Harrison	120	56	26
15	Stetson-Lyon/Palm	449	209	97

California State Law specifies a noise standard of CNEL (L_{dn}) $\geq$65 dBA.* Therefore, the criteria established by the City of Hemet for Land Use Alternative 4 is almost 5 dBA lower than that required by California State Law. The primary reason is that the City of Hemet has established this standard in order to provide quietness as an environmental amenity of future residents.

The contour values illustrated in Figure 14 represent the "annual average" condition predicted for 1986, however, a qualifying statement is in order. Based on the data contained in the background report for Hemet-Ryan Airport noise contours (see Appendix A), the contour map does not necessarily represent the average day condition. Generally, fire bombers only use the airport during emergencies. Calculated as part of the annual average condition, fire bomber related aircraft (the C-119J specifically) tend to skew the results (they are significantly noisier than the general aviation aircraft), and therefore, the following two conditions will exist:

1) On days when fire bomber activity is not taking place, the noise environment would be approximately 5 dBA lower than shown for the average annual condition. This clearly represents an acceptable noise environment for future residents of the Southwest Area.

2) On days when fire bomber activity is taking place, the L_{dn} will be considerably higher than the average annual condition. It is possible that residents located nearest the 55 Ldn contour line may be annoyed by fire bomber aircraft related noise events. The City of Hemet may receive noise complaints.**

Due to the limited amount of train traffic within the City of Hemet, no significant adverse noise impacts are expected within the Southwest Area. However, if industrial growth does occur in the future, and as a result creates a demand for additional rail service, future land use conflicts could result. Therefore, proposed development in the vicinity of the railroad right-of-way should be carefully considered by the City before any "noise sensitive" development is approved.

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* Airport Noise Regulation-California Administrative Code, Title 21, Chapter 2.5, Section 5000-5080.4.

** Refer to Appendix A, Response to Various Community Noise Levels.

Highway traffic noise is expected to be the primary noise source within the Southwest Area. Noise levels are expected to increase significantly as more and more people move into the area. In general, highway traffic noise levels will be highest in areas located adjacent to the primary roadways in the study area. Ultrasystems has estimated noise levels within the vicinity of roadway segments as applicable to residential development for Land Use Alternative 4.* Applicable roadway segments are identified in Figure 36 and the results of calculated L_{dn} exposure levels are contained in Table 30.

The criteria used to assess and prevent adverse highway traffic noise impacts are presented below:

Exterior Environments - Not to exceed L_{dn} of 55 dBA
Interior Environments - Not to exceed L_{dn} of 45 dBA**

Based on the preceeding criteria and the data presented in Table 30, noise mitigations would be necessary in proposed residential areas where the estimated highway noise environment exceeds 55 dBA.

Based on Land Use Alternative 4, development within the planning area is expected to generate an ultimate 149,000 vehicle trip ends per day. The majority of these trips will be oriented towards areas in the City. The result of additional vehicular movement will be a significant unavoidable increase in traffic noise emission levels within the City of Hemet.

Mitigation Measures

The following mitigation measures are recommended:

- Grading and construction activities should not be permitted between the hours of 7 PM and 7 AM, and on Saturday, Sunday, and legal holidays.
- Agricultural property owners within or adjacent to the Southwest Area should limit agricultural operations as much as possible during late evening and early morning hours. Farming equipment which must be operated during the noise sensitive hours should be equipped with adequate and well maintained exhaust mufflers.

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* See Appendix A for Highway Noise Model Assumptions.
** California Administrative Code Title 25. California Noise Insulation Standards. (Assumes a windows-closed condition).
NOTE: An acoustical analysis is required if residential structures are to be located within a noise environment (exterior) of 60 dBA or greater showing that the structure has been designed to meet the 45 dBA interior requirement.

- Future residents of the Southwest Area who will be purchasing homes in the area near the 55 Ldn coutour should be informed through the Real Estate "white paper", as notice concerning occassional fire bombing aircraft related noise events.

- If train operations increase enough to create a significant adverse noise impact, noise mitigation measures should be considered. Land uses such as residences and school would not be suitable for development at locations immediately adjacent to the railroad right-of-way. Residences which would be located in the general vicinity of the railroad should be screened from railroad noise sources by solid sound barriers such as earthen berms or earthen berm/walls. Project design should stress the orientation of structures away from the railroad including windows and other openings.

- A detailed acoustical analysis will be required for residential development located within the 60 dBA noise contour from highway noise sources. The analysis is required in order to prove that the indoor environment will be reduced to a level of 45 dBA or less*.

- Highway noise mitigation measures such as acoustical site planning and/or the design of earthen berms or berm/wall combinations will be necessary in order to reduce noise to acceptable levels (exterior-55 dBA or less) for residential development within the Southwest Area.

NOTE: Residential structures can be utilized to attenuate noise through proper acoustical planning. Outdoor areas can be effectively screened from unwanted noise by incorporating the residential structure as a sound barrier. However, if this concept is used to provide an acceptable interior environment, all windows, vents and other normal openings should be oriented away from the highway noise sources.

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* Title 25, California Noise Insulation Standards.

- Heavy trucks (3 axles or more) are a major source of highway noise. Therefore, limit heavy truck traffic to the following roadway segments (within or adjacent to the Southwest Area):

  - Warren
  - Stetson-Warren/Airport Road

  The mitigation of highway noise outside the Southwest Area may only be practical or economically viable for new rather than existing noise sensitive land uses.

Unavoidable Adverse Impacts

Traffic generated by the Southwest Area will create a significant increase in traffic noise levels locally and in the City of Hemet.

4.4.8 Traffic and Circulation

Impact

The traffic impacts that would result from the development of the Southwest Hemet study area would be incremental in nature and would relate to the degree of completion of the areas various development components. However, since a developmental time frame has not been established, this analysis considers the impacts that could be anticipated at the full build out according to the specified alternative. Table 31 presents a traffic generation forecast for the Southwest Hemet study area once fully developed according to Alternative 4. Traffic generation estimates are included for the AM peak hour and PM peak hour as well as 24 Hour volumes for an average weekday. Generation factors included in Table 31 have been taken from studies compiled by Caltrans (California Department of Transportation) and from studies compiled in the Institute of Transportation Engineers Information Report on Trip Generation.

Traffic Generation is expressed in vehicle trip ends where a trip end is a one-way vehicular movement either entering or departing a generating land use. Summation of the vehicle trip ends generated by the various land use components included in the fourth development alternative for the southwest area, would produce an estimated 149,000 vehicle trip ends per day evenly distributed between inbound and outbound. An estimated 13,700 vehicle trip ends would be expected to occur during the AM peak hour (5030 inbound 8670 outbound) while just over 16,600 vehicle trip ends (10,190 inbound and 6440 outbound) would be generated during the PM peak hour.

It should be noted that the traffic generation potential listed in trip ends in Table 31 is somewhat higher than the number of vehicles that would physically be added to the adjacent street system. Each vehicle trip has two trip ends, one at the origin of the trip and one at the destination. If all vehicle trips generated within the Southwest Hemet study area had origins or destinations outside the combined study area, the total number of vehicle trip ends generated would equal the total number of vehicle trips produced within the study area. However, a certain percentage of residential units will interact trip wise with each other as well as other uses to be contained within the study area, i.e., any commercial centers the Seven Hills Golf Course, the Hemet Ryan Airport, and any future industrial development.

TABLE 31

TRAFFIC GENERATION FORECAST - Alternative 4

Development	AM Peak Hour			PM Peak Hour			24 Hour
	Inbound	Outbound	Total	Inbound	Outbound	Total	2-Way
Hemet Residential(10600D.U.) Generation Factor* (T.E./D.U.)**	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	3180	6360	9540	7420	4240	11660	106000
County Residential(2250D.U.) Generation Factor (T.E./D.U.)	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	670	1350	2020	1570	900	2470	22500
Seven Hills Area Residential (1458D.U.) Generation Factor (T.E./D.U.)	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	440	875	1315	1020	580	1600	14500
Industrial(88 acre) Generation Factor (T.E./D.U.)	8.4	1.0	9.4	2.0	8.2	10.2	68.1
Generated Vehicle Trips	740	90	830	180	720	900	6000
Total Traffic Generated	5030	8670	13,700	10,190	6440	16,630	149,000

*Section 210, Trip Generation, An Informational Report of the Institute of Transportation Engineers, 1976.

**T.E./D.U. = Trip Ends/Dwelling Unit. A trip end is a one-way vehicular movement either entering or leaving the generating land use.

Therefore, this one-to-one relationship between vehicle trip ends and vehicle trips does not apply. The number of vehicle trips in terms of vehicles physically added to the adjacent street system is somewhat less than the total number of trip ends produced by the various components of the total study area. For the purposes of this analysis therefore, it has been assumed that 25 percent of the estimated vehicle trip ends to be generated by development within the study area would be completely internal to the area.

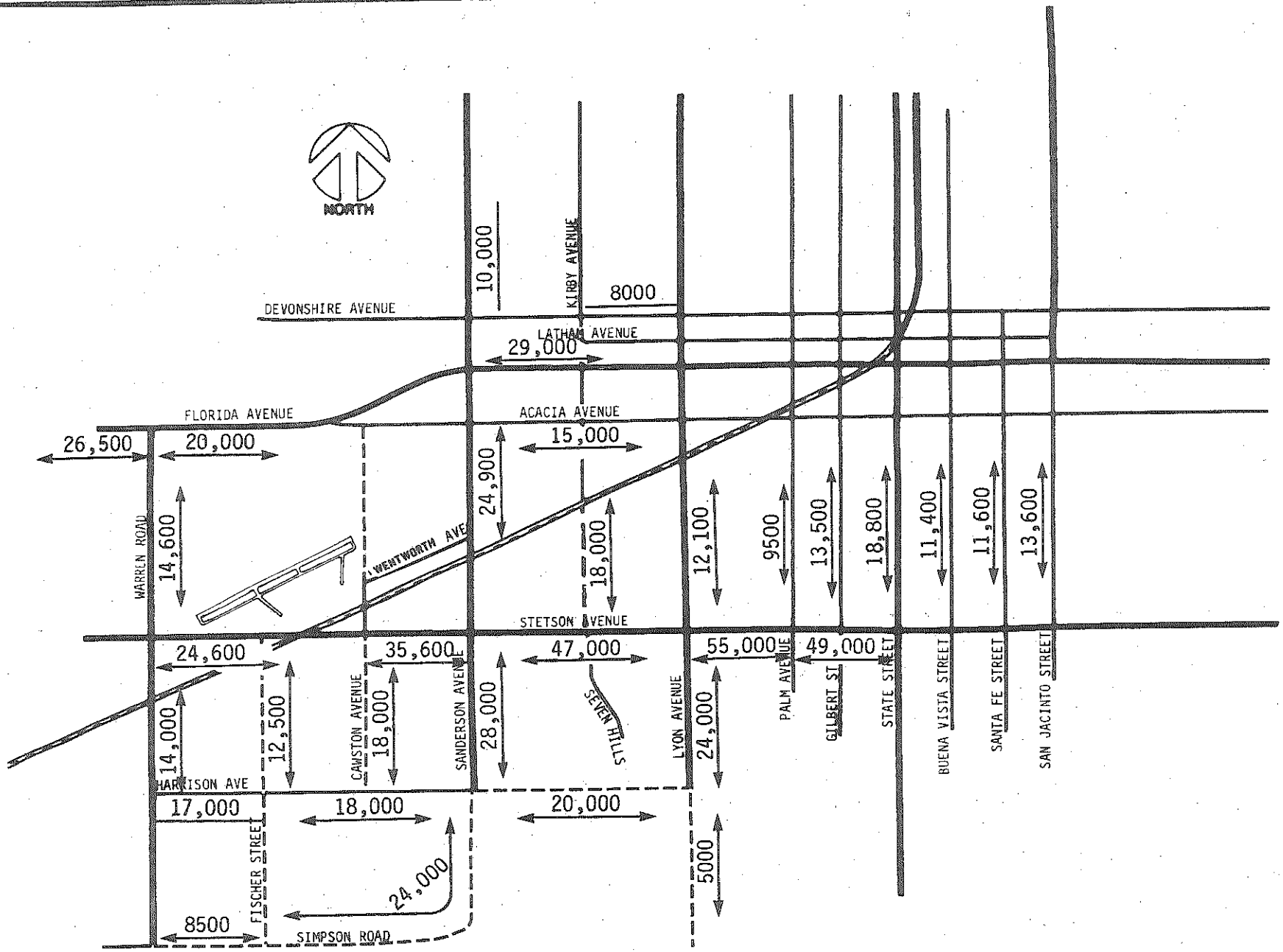
In addition, a daily traffic generation rate of 10 trip ends per dwelling unit has been used for the projections made in this report. This generation rate is generally associated with single family detached dwelling units. Other residential uses such as multi-family townhouses or condominium units, apartments and mobile home parks typically have lower traffic generation rates. For this reason the the traffic generation forecast listed in Table is considered conservatively high.

The traffic generation potential associated with the various land uses within the southwest study area has been distributed and assigned on a component by component basis for each land use designation contained within the specified alternative. The current area roadway system and existing travel patterns, the current and projected population and employment distribution, a review of potential development surrounding the study area, and projected roadway expansion as reflected in the current Master Plan of Highways of both the City of Hemet and County of Riverside were factors considered in projecting traffic distribution. As previously mentioned, a percentage of the traffic generated within the study area is expected to be internal to the area itself. The major attraction of the trips generated that would be external to the study area, would still be expected to be to the north and east of the study area. On this basis, roughly 60 percent of the traffic generated by development within the Southwest Hemet area is expected to be oriented to the north and east of the study area. Fifteen percent is projected to be oriented to the west with the remaining 25 percent completely internal to the study area.

The assignment of the Southwest Hemet study area traffic to various links of the master planned highway system was not capacity restrained in that future total volumes at anyone location were not limited to the capacity associated with the functional classification of that link as shown on the City and County master plans. Figure 37 carries out the distribution and assignment procedure and illustrates the future total traffic volumes on those roadways shown based on anticipated travel desires. The traffic volumes shown in Figure 37 represent a summation of existing raodway volumes and those volumes projected to be added as a result of development in the Southwest Hemet study area. They do not reflect any additional growth in traffic volumes that might occur as a result of development in other areas of Hemet.

As illustrated in Figure 37, the primary traffic impact as a result of development in the Southwest Hemet Study area, would be experienced along Stetson Avenue which, if the capacity were available, would realize a traffic volume increase of roughly 40,000 vehicles per day. This would result in daily traffic volumes of between 35,000 and 55,000 vehicles per day. Sanderson Avenue would also receive a significant increase with daily traffic volumes ranging between just under 25,000 vehicles per day north of Stetson Avenue to 28,000 vehicles per day south of Stetson Avenue. Simpson Road would be expected to carry roughly 24,000 vehicles per day while Lyon Avenue is projected to carry 12,000 vehicles per day north of Stetson Avenue and 24,000 vehicles per day south of Stetson Avenue.

Kirby Avenue currently ends just south of Acacia Avenue however it will be necessary to complete Kirby Avenue southerly to Stetson Avenue as the southwest area develops. Kirby Avenue, when completed to Stetson Avenue, would provide relief to traffic volumes projected for Sanderson Avenue as well as provide access to that portion of the Southwest Study area it traverses and to the Seven Hills development. As previously mentioned, Lyon Avenue and Palm Avenue run through residential areas (in particular those areas immediately north of Stetson Avenue developed into mobile home lots) that may preclude future roadway widening thereby limiting their respective traffic carrying capabilities. This fact further illustrates the importance of Kirby Avenue to the areas circulation system as future development occurs.



Source:

Linscott, Law & Greenspan, Inc.

Title:

Daily Traffic Distribution Alternative 4

37

Similarly, Gilbert Street and State Street would become secondary north-south routes for traffic generated and attracted to the Southwest Hemet study area. These two roadways are projected to carry approximately 13,500 and 18,800 vehicles per day, respectively. Other impacted roadways and their respective projected traffic volumes are shown on the distribution figure.

Twenty-four hour roadway capacities were estimated based on the master planned cross-sections shown in Figure 18 and on the following assumptions: an ultimate population of between 25,000 and 40,000, a peak hour factor of .85, 5 percent trucks, 10 percent right turns, and a G/C ratio of .50. The resulting capacities that were determined by these assumptions were as follows:

Functional Classification	Capacity
Collector	11,000
Secondary	17,000
Major	20,000
Arterial	21,500

It should be noted that the actual capacities could vary from those calculated above as the area develops and actual traffic characteristics can be determined. Roadway capacity when evaluated on a corridor basis, for instance, often results in a range in capacity values (for example, traffic volumes of between 20,000 and 30,000 vehicles per day are commonly associated with arterial highways). This range depends upon such things as access control, intersection spacing, and signal progression. However, the capacities calculated above are believed to be reasonable and appropriate values for planning purposes.

The calculated roadway capacities above and the projected future roadway volumes shown on Figure 37 were used to determine a recommended circulation system for the various alternatives proposed. Capacity deficiencies and surpluses were balanced among parallel routes to develop a recommended arterial highway system. This procedure assumed that the local circulation system would be designed in such a manner so as to more evenly distribute study area traffic to the arterial roadway system for a particular travel orientation. The recommended circulation networks also assumes intersection

widening techniques would be implemented to the next highest functional classification where that higher classification would not be justified over an entire roadway link. It has also been assumed that the proposed circulation system would be developed so that the various roadway segments would be constructed out of the existing floodway, or in such a manner that access would be maintained should a flood occur.

On this basis then, the following master planned highway cross-sections are recommended for roadways in the Southwest Hemet study area should it develop according to Alternative 4.

Roadway	Classification
Sanderson Avenue	Arterial
Stetson Avenue	Arterial
Acacia Avenue	Secondary
Harrison Avenue	Major/Arterial
Simpson Road	Arterial
Warren Road	Secondary
Cawston Avenue	Secondary
Fischer Street	Secondary
Lyon Avenue	Secondary/Major
Kirby Avenue	Secondary

To individually calculate the estimated capacity utilization at each intersection within the study area is beyond the scope of planning at the general plan level. Thus, in this report, hypothetical capacities have been utilized and a more refined analysis should be made as the area develops.

It becomes apparent, when balancing capacity deficiencies and surpluses among parallel routes, that another east-west route, paralleling Stetson Avenue to the south, would be essential to the areas development. Harrison Avenue is currently master planned as a secondary highway between Warren Road and Lyon Avenue on the Hemet-San Jacinto General Plan and between Warren Road and State Street on the Circulation Element of the Riverside County General Plan. This master planned secondary highway would provide the additional east-west route needed to accommodate future traffic volumes projected to occur as a result of development planned in the area. It should be noted however,

that a golf course has been constructed and is in operation in that area that would include the easterly extension of Harrison Avenue as currently shown on the respective Highway Master Plans. It may be necessary, therefore, to amend the existing Highway Master Plans (Hemet and Riverside County) to reflect a more southerly alignment of Harrison Avenue should this new alignment prove more advantages to the City of Hemet and development in the Southwest area.

Signalization of the major intersections within and immediately adjacent to the Southwest Hemet Study area would undoubtedly be warranted upon completion of the entire development. These intersections would include Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue, Stetson Avenue and Cawston Avenue, Sanderson Avenue and Acacia Avenue, Stetson Avenue and Warren Road, Sanderson Avenue and Harrison Avenue, Harrison Avenue and Lyon Avenue, and Warren Road and Florida, Kirby Avenue and Acacia Avenue, and Kirby Avenue and Stetson Avenue. However, since traffic signals should be installed only after positive evidence of there need has been demonstrated, it is recommended that specific intersections be evaluated as necessary prior to ultimate occupancy of the areas planned development.

The development of the Southwest Study area according to this alternative would generally impact all transportation facilities in the Hemet area. It is difficult however, to quantify traffic impacts at locations more distant from the study area. This is due to the fact that traffic volumes generated by land development within the area tend to dissipate or "decay" as the distance from the generating source and a particular location under consideration increases. It can reasonably be expected however, that the primary north-south routes between Stetson Avenue and Florida Avenue would receive a significant amount of study area generated traffic. Also, major trip attractors are still expected to be located along Florida AVenue for some time in the near future. Therefore, traffic generated by development within the Southwest Hemet study area, could be expected to further impact traffic conditions along Florida Avenue.

As previously mentioned the only public transportation service to the area at the present time is provided by a dial-a-ride system. Due to the lack of public transportation to rural areas such as Hemet those residents who do not own there own automobiles are dependent on a relative, friend or neighbor to provide for any transportation needs. When these sources or public transportation systems are unavailable they remain isolated. The Riverside Transit Agency is attempting to alleviate some of the problems which confront many transportation disadvantaged individuals in the county. The development of the southwest area of Hemet may inable public transportation into this area to become more economically feasible thus enhancing the efforts to improve public transportation facilities.

When specific project site plans for the various components of the southwest area are developed, provisions should be made for adequate off-street parking. General parking demands for several common types of land uses and off-street parking requirements are listed in the Riverside County zoning ordinance and presented in Table 32.

The development of the Southwest Hemet study area according to development Alternative 4 would result in an estimated daily VMT (vehicle miles travelled) increase of roughly 745,000 miles per day.

Mitigation Measures

The following measures are suggested as a means of mitigating potential traffic impacts generated by the development of the Southwest Hemet Study area as proposed herein. The measures listed below would have the affect of improving anticipated traffic conditions with regard to both project related traffic and total area traffic which would result from other future growth in the area.

- The construction and improvement of the following roadways to their recommended master plan cross-section will be required to accommodate the anticipated traffic volumes that are projected from development within the Southwest Hemet study area:

TABLE 32

PARKING REQUIREMENTS

TYPE OF LAND USE	SPACES REQUIRED[1]	ORDINANCE 348[2]
Retail Store*	1 per 350 sq.ft. GFA**	1 per 250 sq.ft. GFA
Office Building	1 per 300 sq.ft. GFA	1 per 250 sq.ft. GFA
Restaurant (sit down type)	1 per 4.5 seats	1 per 45 sq.ft. of serving area
Single-Family Dwelling	2 per unit	1 per D.U.
Multi-Family Dwelling	1.75 per unit	1 per D.U.
Shopping Center 30,000-75,000 sq.ft. GFA	7 per 1,000 sq.ft. GFA	1 per 150 sq.ft. GFA

* Not in a shopping center.

** GFA - Gross Floor Area

SOURCE: [1] Traffic Engineering for Small Cities and Counties, Automobile Club of Southern California, p. 11.

[2] Riverside County Zoning Ordinance No. 348, Section 18.12.

Roadway	Master Plan Cross-Section
Sanderson Avenue	Arterial
Stetson Avenue	Arterial
Acacia Avenue	Secondary
Harrison Avenue	Major/Arterial
Simpson Road	Arterial
Warren Road	Secondary
Cawston Avenue	Secondary
Fischer Street	Secondary
Lyon Avenue	Major
Kirby Avenue	Secondary

- Construction of all planned local collector streets to the standards set forth in the Riverside County General Plan and the Hemet-San Jacinto General Plan.

- The installation of traffic signals at the following intersections will undoubtedly be warrented. Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue, Stetson Avenue and Cawston Avenue, Sanderson Avenue and Acacia Avenue, Stetson Avenue and Warren Road, Sanderson Avenue and Harrison Avenue, Harrison Avenue and Lyon Avenue, Warren Road and Florida, Kirby Avenue and Acacia Avenue, and Kirby Avenue and Stetson Avenue. However, as previously discussed, the installation of traffic signals should be made only after positive identification of their need has been established and it is recommended that these intersections be evaluated as necessary prior to ultimate occupancy of the areas planned development.

- Promote ride-pooling (car-pools/van-pools) with regard to persons employed in any planned commercial and industrial activities. This would have the potential of reducing daily commuter traffic and on-site parking requirements.

- Demand-responsive (dail-a-ride) public transit should be encouraged. Where practical small vans or busses should be used. Provision of a public transit system will reduce potential auto travel, and provide mobility to those residents who are either too young to drive, do not drive, no longer drive, or are not capable of bicycling.

- The feasibility of expanding the Riverside Transit Agency's transportation service in the Hemet area should be considered.
- Control of access to the arterial and major street system as outlined in the Riverside County Subdivision Ordinance No. 460 should be encouraged. Control of access reduces the number of potential traffic conflicts, smoothes out traffic flow and increases traffic capacity.
- Provide sufficient off-street parking to meet anticipated demand for each planned use, taking into account the County zoning ordinances and the potential for overlapping or joint use of parking areas serving such complimentary land uses as may be developed.
- Provide separate bicycle and pedestrian pathways throughout the project as a means of promoting alternative forms of movement. For safety, convenience and efficiency, these systems should be separated from the vehicular traffic system and from one-another.
- Establish land use patterns, intensities and relationships which would reduce vehicle trip making characteristics and promote the use of alternative modes of travel such as bicycles, walking and transit. For example, increased residential densities adjacent to the planned commercial activities and open spaces designed with integral bike paths and pedestrian ways.

Unavoidable Adverse Impacts

Land Use Alternative No. 4 could produce an estimated 149,000 vehicle trip ends per day evenly distributed between inbound and outbound.

4.4.9 Open Space and Conservation

Land Use Alternative No. 4 would reduce the amount of open space in the Southwest Area by over 90 percent. Over 2,643 acres of open space will be reclaimed for residential, commercial and industrial land uses. The remaining 15 percent, including the flood control channel, golf course and steep hillside slopes, will remain in the current agricultural and open space use. Development would be restricted on steep hillside slopes over 25%, consistent with the Hemet Open Space and Conservation Element.

The Salt Creek floodway will remain as open space; however, the channel will be altered by construction of a flood control channel. Portions of the flood plain may be lost as open space to residential development. The proposed improvements to Salt Creek will open up agricultural land to urban development possibilities. Development could occur within the floodway.

The Southwest corner of the Southwest Area, which is unincorporated County land, is the only part of the project area with an agricultural preserve status. Portions of this agricultural preserve may be developed for residential use upon completion of the flood control channel. In addition, a major portion of the site includes Class I and II capability soils, considered prime agricultural land. This land will be lost as residential development of the area occurs. Agriculture has been of great value to the community, both in terms of economic gains and as a means of preserving open space. The loss of agricultural land is irreversible. The proposed residential development in the Southwest Area may encourage property values to rise on adjacent agricultural property, particularly County land in Diamond Valley to the east and land west of Hemet.

The Open Space and Conservation Element recommends a community park of between 30 and 40 acres to serve Hemet and the developments serving the City. The Southwest Area has the potential for development of park facilities concurrent with residential development. Using the standard of 2.5 to 3 acres of open space per 1,000 population, this land use alternative could create a need for 66 to 80 acres of neighborhood parks.

Mitigation Measures

Open space should be valued as an essential complement to urban living and considered within all future development proposals. Development subdivision practices which foster open space and conservation concepts (such as clustering, zero lot lines and coverage incentives) should be encouraged.

Policies should be formulated to encourage participation in the Williamson Act Preservation Program, granting tax relief to owners of agricultural property who agrees not to develop their land for a minimum of 10 years. Additional incentives should be provided for agricultural land owners holding less than 100 acres who are not eligible for preservation status and the economic security it provides.

Unavoidable Adverse Impacts

Land Use Alternative No. 4 would reduce the amount of open space in the Southwest Area by approximately 85 percent.

4.4.10 Public Services and Utilities

4.4.10.1 Fire Protection

Development resulting from Land Use Alternative No. 4 will impact the City of Hemet Fire Department by requiring additional manpower and equipment. The increased demand on the Department will make it necessary to provide additional stations in the southwest and northeast areas of the City. One station is proposed to be located near the airport industrial area, probably on Stetson Avenue. Another station is proposed to be constructed in the vicinity of Menlo and Sanderson Avenues.* Based on a rate of one firefighter per 1,000 population, Land Use Alternative No. 4 could necessitate the addition of 27 firefighters in the Southwest Area.

Development in the Southwest Area will increase response times and number of calls. New construction that occurs adjacent to existing development in the City is more easily serviced than more remote areas. Developments that encroach upon the flight paths and those surrounding the airport may be subject to aircraft crashes.

Mitigation Measures

New development should be located adjacent to existing developed areas, rather than in remote fringe areas, to minimize the response time. Adequate design features should be incorporated into all new developments.

Unavoidable Adverse Impacts

The increased demand will require additional manpower and equipment.

4.4.10.2 Police Protection

Development resulting from Land Use Alternative No. 4 will impact the City of Hemet Police Department by generating an increased demand for manpower and equipment. At this time, the Police Department has a need for five more officers for traffic enforcement and specialized burglary patrol. Land Use Alternative No. 4 could generate a population growth of 26,540 people in the Southwest Area, thus necessitating a minimum of 38 additional officers, based on a rate of 1.45 officers per 1,000 persons. Crime prevention and traffic control will become more unamanageable if the present trend continues.

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* Richard Feuerstein, Assistant Fire Chief, City of Hemet Fire Department.

Mitigation Measures

New development should be located adjacent to existing developed areas, rather than in remote fringe areas, to minimize the response time. Adequate street and security design features should be incorporated into all new developments.

Unavoidable Adverse Impacts

The increased demand will require additional manpower and equipment.

4.4.10.3 Schools

Land Use Alternative No. 4 would impact the Hemet Unified School District by generating additional students. The school system has no excess capacity; therefore, any new development would require school construction. The 1977-1978 enrollment at Hemet Senior High School exceeded the school's capacity by nearly 80 students. The school system does not have a student generation rate due to the unusual composition of the population of Hemet. Based on the 1975 ratio of 15.4 students per 100 population, this land use alternative could generate 4,091 additional students. This ratio has remained fairly constant since 1975. Overenrollment is expected to continue at a 3 percent annual growth rate. There are no immediate plans or financing provisions for increasing the capacity of schools in the district. In addition, most of the students generated by residential development in the Southwest Area will be located outside the maximum walking distance to associated schools. Therefore, additional bus service will also be required.

Mitigation Measures

Student generation rates are uncertain at this time. SB 201, relating to builder contributions to the school system, may be a means of purchasing relocatable classrooms and putting them on existing sites. However, the cost may be prohibitive under the developer assessment program.

Unavoidable Adverse Impacts

This Land Use Alternative could generate 4,091 additional students, requiring new school construction.

4.4.10.4 Hospital and Emergency Services

It is expected that this land use alternative will require 93 additional beds at the Hemet Valley Hospital, based on a factor of 3.5 beds per 1,000 people. The hospital is currently operating at near capacity; however, an additional medical-surgical unit of 90 beds is expected to be completed by April of 1979. The new unit will be forced to capacity to accommodate the projected demands created by this alternative.

Mitigation Measures

The new medical-surgical unit will partially mitigate the additional demand created by the project. Three more floors can be added to this structure when a need for the addition is demonstrated.

Unavoidable Adverse Impacts

This alternative will increased demand for hospital and emergency services.

4.4.10.5 Electricity

Electrical service will be provided to the development proposed by Land Use Alternative No. 4 through extension of the electrical distribution facilities located along the south side of Stetson Avenue. This Land Use Alternative is expected to generate a peak demand of 180,153 kilowatts, based on the following demand rates:*

Single-family	10 KW/DU X 10,238 DU =	102,380 KW
Multiple-family	5 KW/DU X 11,153 DU =	55,765 KW
Mobile Home	5 KW/DU X 2,848 DU =	14,240 KW
Commercial	7 Watts/Sq.Ft. X 233,550 Sq.Ft. =	1,635 KW
Industrial	4 Watts/Sq.Ft. X 1,533,312 Sq.Ft. =	6,133 KW
TOTAL		180,153 KW

Electrical consumption represents a use of a non-renewable natural resource, e.g., low sulfur fuel oil. The use may be considered an irreversible impact from the proposed development. The extension of additional electric service to the Southwest Area may be considered growth-inducing.

* Ultrasystems Planning Factors.

The major fuel used in Southern California Edison Company's generating facilities is low sulfur fuel oil. The inventory of low sulfur fuel oil, combined with contractual agreements for delivery and electric customers' conservation effects, is expected to allow Southern California Edison Company to meet peak demand through 1977. Ability of Southern California Edison Company to meet peak demand periods after 1980 is dependent upon plans to proceed with construction of new generating facilities, since total system demand is expected to increase annually.*

Mitigation Measures

Energy conservation measures should be required to minimize the loss of low sulfur fuel oil, a non-renewable natural resource. Southern California Edison Company should be consulted to incorporate energy conservation measures into future development proposals.

Generally, energy conservation measures include application of solar energy for water heating, use of energy-efficient appliances, building insulation, and energy conserving design of common facilities. Refer to Section 4.4.11 regarding energy mitigation measures.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for electrical distribution lines and service.

4.4.10.6 Gas

The Southern California Gas Company will provide service to the Southwest Area through extension of the gas supply line located in Florida Avenue. The existing supply line system has approximately 20% excess capacity over present requirements, a capacity for 7,000 people.** Land Use Alternative No. 4 could generate 26,540 people, thereby exceeding the current capacity of the service system. This land use alternative is expected to consume 300.8×10^6 cubic feet of gas per month, based on the following consumption rates:***

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* H. E. Ashford, District Manager, Southern California Edison Company.
** R. C. Wright, Distribution Planning Supervisor, Southern California Gas Company.
*** City of Los Angeles, EIR Manual for Private Projects, 1975. Updated, 1976.

Single-family	9,125 cu.ft/DU/Mon X 24,239 DU =	221.2 X 10^6 cu.ft./Mon
Multiple-family	5,330 cu.ft/DU/Mon X 11,153 DU =	59.5 X 10^6 cu.ft./Mon
Mobile Home	5,000 cu.ft/DU/Mon X 2,848 DU =	14.2 X 10^6 cu.ft./Mon
Commercial	3.5 cu.ft./Sq.Ft./Mon X 233,550 Sq. Ft. =	.82 X 10^6 cu.ft./Mon
Industrial	3.3 cu.ft./Sq.Ft./Mon X 1,533,312 Sq. Ft. =	5.1 X 10^6 cu.ft./Mon
TOTAL		300.8 X 10^6 cu.ft./Mon

The local distribution systems will require expanding. The timing and location of future reinforcements will depend on the actual growth rate and pattern. As a public utility, the Southern California Gas Company is regulated by the California Public Utilities Commission. They are also affected by actions of federal regulatory agencies. Should these agencies make any policy or rule changes that affect gas supply or conditions under which service is available, gas service would be provided to the area in accordance with the revised rules.

Mitigation Measures

Energy conservation measures should be required to minimize the loss of a valuable, non-renewable natural resource. Consultation should be made with the Southern California Gas Company to implement conservation measures. Possible energy conservation measures include application of solar energy for water heating, use of energy efficient appliances, building insulation and energy conserving design. Refer to Section 4.4.11 regarding energy mitigation measures.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for natural gas and distribution lines.

4.4.10.7 Water

The Eastern Municipal Water District (E.M.W.D.) will provide domestic water to the project through extension of existing service lines in the Southwest Area. The specific capacity of the system could not be quantified without a detailed study, but E.M.W.D. indicated that the distribution system was probably operating near capacity. At present, 75 percent of the water supplied by E.M.W.D. is sold for agricultural use. Domestic use has the primary

claim to the imported Colorado River water supply of E.M.W.D. and the Metropolitan Water District of Southern California. In the event of a serious water problem, the Metropolitan Water District of Southern California has a formula for the allocation of the water it imports.*

The transition of the Southwest Area from irrigated agriculture to domestic use will not require appreciably more water than is currently being used.

Water consumption for Land Use Alternative No. 4 is estimated to be 210,962,508 gallons per month, based on actual City water use as follows:**

Single-family	6308 gal/DU/Mon	X	24,239 DU	=	152,900,000 gal/Mon
Multiple-family	4313 gal/DU/Mon	X	11,153 DU	=	48,102,889 gal/Mon
Mobile Home	3435 gal/DU/Mon	X	2,848 DU	=	9,782,880 gal/Mon
Commercial	855 gal/CU/Mon	X	117 CU	=	100,035 gal/Mon
Industrial	1088 gal/IU/Mon	X	70.5 IU	=	76,704 gal/Mon
TOTAL					210,962,508 gal/Mon

Impacts from the project upon water quality will be due to sewage generated by project residents.*** Reclaimed wastewater is used for irrigation water and percolates through the soil to the groundwater level. Total dissolved solids are not reduced as the water percolates through the soil. Nitrates may be a problem.**** Groundwater quality is monitored, and E.M.W.D. is working with the Regional Water Quality Control Board on a long-term solution to water quality problems.

Mitigation Measures

Efforts toward water conservation should be made. Possible measures include:

- Landscape watering during early morning hours or during the evening to reduce water loss from evaporation.
- Selection of drought-tolerant plants in landscaping.
- Use of plumbing fixtures which will reduce water loss or consumption.

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* James H. Bunts, Jr., Eastern Municipal Water District.
** "Fiscal Impact Analysis of Southwest Area", Ultrasystems.
*** Kevin Kozad, Eastern Municipal Water District.
**** Ibid.,.

primary claim to the available water supply through E.M.W.D. so there is excess capacity for residential use.*

Water consumption for Land Use Alternative No. 4 is estimated to be 210,962,508 gallons per month, based on actual City water use as follows:**

Single-family	6308 gal/DU/Mon X	24,239 DU =	152,900,000 gal/Mon
Multiple-family	4313 gal/DU/Mon X	11153 DU =	48,102,889 gal/Mon
Mobile Home	3435 gal/DU/Mon X	2848 DU =	9,782,880 gal/Mon
Commercial	855 gal/CU/Mon X	117 CU =	100,035 gal/Mon
Industrial	1088 gal/IU/Mon X	70.5 IU =	76,704 gal/Mon
TOTAL			210,962,508 gal/Mon

Water supply does not seem to be a limiting factor, since at this time there are no limits on imported water. Impacts from the project upon water quality will be due to sewage generated by project residents.*** impacts will be no greater than from any other development in the Hemet area.**** Reclaimed wastewater is used for irrigation water and percolates through the soil to the groundwater level. Total dissolved solids are not reduced as the water percolates through the soil. Nitrates may be a problem.***** Groundwater quality is monitored, and E.M.W.D. is working with the Regional Water Quality Control Board on a long-term solution to water quality problems.

Mitigation Measures

Efforts toward water conservation should be made. Possible measures include:

- Landscape watering during early morning hours or during the evening to reduce water loss from evaporation.
- Selection of drought-tolerant plants in landscaping.
- Use of plumbing fixtures which will reduce water loss or consumption.

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* Kevin Kozad, Eastern Municipal Water District.
** "Fiscal Impact Analysis of Southwest Area", Ultrasystems.
*** Kevin Kozad, Eastern Municipal Water District.
**** Ibid.,.
***** Ibid.,.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for domestic water.

4.4.10.8 Sewage

Sewage collection and treatment will be provided to the proposed land uses, through extension of existing City and Eastern Municipal Water District (E.M.W.D.) facilities. The Hemet-San Jacinto Regional Water Reclamation Facility has a present capacity of 5 MGD, leaving an unused capacity of 1.5 MGD. The 21-inch main sewer line in Stetson Avenue has a 3 MGD capacity, leaving an unused capacity of 2.75 MGD. Land Use Alternative No. 4 is expected to generate 2.8 MGD, based on the following generation rates:*

Residential	100 gal/person/day X 26,540 people =	2,654,000 gal/day
Commercial	100 gal/1,000 sq. ft./day X 233,550 sq. ft. =	23,355 gal/day
Industrial	100 gal/1,000 sq. ft./day X 1,533,312 sq. ft. =	153,331 gal/day
TOTAL		2,830,686 gal/day

The proposed land use alternative will impact the E.M.W.D. facilities by generating sewage in excess of the existing system capacities. A sewage treatment plant is planned for the Winchester area to serve the Southwest Area and the southern part of the Valley, although a date is not available for the construction of this plant.

Mitigation Measures

Mitigation Measures are closely related to water conservation measures mentioned in the previous section.

Unavoidable Adverse Impacts

The proposed land use alternative will generate sewage amounts close to the existing system capacities.

* Ultrasystems Planning Factors.

4.4.10.9 Telephone

Telephone service will be available to serve the proposed land uses, through extension of existing distribution lines. The proposed land uses will not cause a significant impact on the plans of the telephone company for providing service to the area, provided that growth occurs in increments.

Mitigation Measures

No mitigation measures are proposed.

Unavoidable Adverse Impacts

The proposed land use alternative will result in increased demand for telephone services.

4.4.10.10 Solid Waste

Refuse collection services will be provided by the City of Hemet. Refuse collection is mandatory at a frequency of two times per week.

On site generation of solid waste resulting from Land Use Alternative 4 is estimated to be 101,687 pounds per day or 50.8 tons, based on the following generation rates:*

Residential	2.5 lb/person/day X 26,540 persons =	66,350 Lb/Day
Commercial	2 lb/day/100 sq. ft. X 233,550 Sq. Ft. =	4,671 Lb/Day
Industrial	2 lb/day/100 sq. ft. X 1,533,312 Sq. Ft. =	30,666 Lb/Day
TOTAL		101,687 Lb/Day

The two landfill sites serving the Southwest Area will be impacted by the solid waste generated; however, the life of the landfills are projected beyond the year 2000.

Mitigation Measures

Separation of wastes at the source could be encouraged to facilitate resource reclamation and recycling efforts.

Unavoidable Adverse Impacts

This alternative will result in an increased burden upon landfill sites.

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* Riverside County Waste Disposal Division.

4.4.11 Energy

Implementation of the proposed land uses will result in consumption of non-renewable energy resources, both in the short-term and in the long-term.

Short-term impacts include use of non-renewable energy resources during the construction phase of the proposed project. Fossil fuels will be used to operate construction machinery as well as to transport workers to and from the project site. Since construction materials themselves have required the consumption of energy for their production, use of construction materials also represent consumption of energy resources.

Long-term impacts due to project implementation include consumption of gas and electricity for heating, cooking and water heating (see section regarding Public Services and Utilities). Long-term impacts also include the consumption of gasoline.

The amount of fossil fuels burned for production of electricity to serve the project can be estimated, as can the amount of natural gas burned. Residents of the proposed project are estimated to consume 18,412,749 kwh/month or 220,950,000 kwh/year. Using the formula below it has been calculated that an estimated 15,182,237 gallons of low sulfur fuel oil is necessary to generate the required electric power.

$$\frac{220{,}950{,}000 \text{ kwh}}{\text{year}} \times \frac{10{,}387 \text{ BTU}}{\text{kwh}} \times \frac{\text{lb.}}{19{,}000 \text{ BTU}} \times \frac{\text{gal.}}{7.956 \text{ lb.}}$$

$$= 15{,}182{,}237 \text{ gallons/year}$$

Natural gas combustion has been estimated at 300.8×10^6 cubic feet per month.

Mitigation Measures

Energy Conservation. The commercial and industrial buildings in the project area should be designed for optimum energy-efficiency in accordance with Energy Conservation Standards for New Non-Residential Buildings* adopted by the State of California Energy Commission on February 5, 1976.

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* Energy Conservation Standards for New Non-Residential Buildings. Regulations establishing energy conservation standards for new non-residential buildings, adopted by the State Energy Resources Conservation and Development Commission pursuant to Sections 19878-19878.8 of the Health and Safety Code and Section 25402(a) of the Public Resources Code are contained in California Administrative Code, Title 24, Part 6, Division T20, Chapter 2, Subchapter 4, Article 2, Sections T20-1450 to T20-1550.

The new regulations prescribe energy conservation standards for non-residential buildings in California. Specifically, the regulations include energy saving designs for roof, wall, and floor installations, and also contain lighting, heating and air conditioning and hot water supply specification standards. The regulations encourage the use of solar and wind power and other non-depleting energy sources. They offer builders the option of utilizing any building design that consumes less energy than the standard design described in the regulations. The regulations will be enforced by local building officials through the permit process.

Energy consumption in non-residential buildings is determined by interior heating and cooling requirements. The major climate influence in the Hemet area is that of the Continental Air Mass, with the ocean determining the climate no more than 15 percent of the time. Two climates occur within the Hemet Valley area. Cold air basins are formed in the valley, where the project site is located.

The overall climate in the San Jacinto area is defined as semi-arid. Yearly rainfall averages 12.81 inches. On the average nine inches, or seventy percent of the total, falls in the four months, December through March. According to State Climatologist, the average temperature in the area over a period of a year is 62.4^{o}. The average high is nearly 99° in July and the low is 34.5^{o} in January. The prevailing winds are from the southwest and, according to the Riverside County Department of Development, the mean hourly speed is nineteen miles per hour.

The State Energy Resources Conservation and Development Commission has adopted regulations establishing energy conservation standards for new residential buildings. These regulations took effect July 1, 1978 after which no new residential building permits may be issued unless the building design is in compliance with the new standards. The Energy Commission has developed a Residential Energy Conservation Manual to assist designers, builders, building officials and contractors in interpreting and implementing the new standards. Provisions for life cycle cost comparison of electric, natural gas, and solar space and water heating systems are included in the standards.

The Energy Commission has also adopted energy conservation standards covering new appliances. In accordance with these standards, no new appliance manufactured after the effective dates provided in the standards may be sold in California unless certified by the manufacturer to be in compliance with the new standards. The appliances covered under the standards include gas fired, forced air control furnaces, gas cooking appliances, gas clothes dryers, room and central air conditioners, refrigerators and freezers, and gas hot water heaters.

Unavoidable Adverse Impacts

Implementation of this land use alternative will result in consumption of non-renewable energy resources, both in the short-term and in the long-term.

4.5 Land Use Alternative No. 5 - Impacts and Measures Which May Mitigate or Enhance Impacts

Summary of Land Use Alternative No. 5

Land Use Alternative No. 5 as shown in Figure 38 moderately controls growth in the Southwest Area through the following assumptions:

1) Requires a change in the Noise Element by allowing residential development within the 55 Ldn noise contour or Hemet-Ryan Airport.

2) Residential development restricted within the floodway. Development within the flood plain must be protected according to the Flood Insurance Program.

3) Restricts development on steep hillside slopes.

4) Maximum growth of 10,400 people on 1,762 acres suitable for residential development.

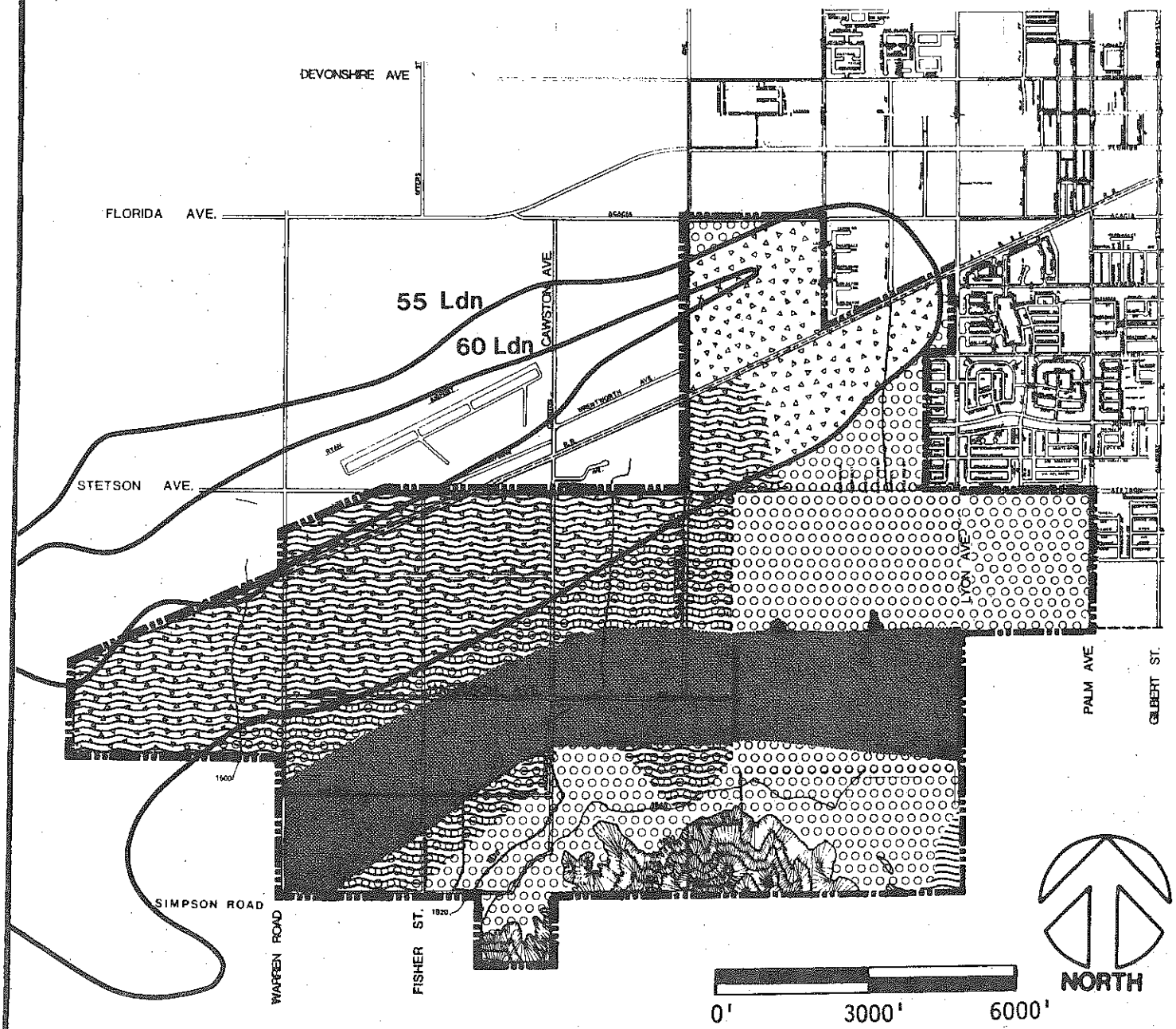
5) Very low density residential development of one dwelling unit per 2.5 acres or more will be permitted within the 55 Ldn noise contour, including approximately 823 acres. The remaining 939 acres of residential development will have a density of 5.4 dwelling units per acre. No mobile homes or multiple family units will be allowed within the 55 Ldn noise contour.

6) Open space will remain in 50 percent of the area.

7) Includes 155 acres of industrial and 12 acres of commercial land uses.

8) Would not encourage redevelopment of existing City area.

9) May not provide the necessary protection of the airport from encroachment and may not protect residential development from airport noise.



Ldn NOISE CONTOUR

FLOOD PLAIN
100-YEAR INUNDATION

FLOODWAY

NON-RESIDENTIAL USES AS PER FLOOD INSURANCE PROGRAM

NON-RESIDENTIAL USES

RESIDENTIAL USES AS PER FLOOD INSURANCE PROGRAM

RESIDENTIAL USES AVG. 5.4 DU/ACRE

LOW-DENSITY RESIDENTIAL USES AS PER FLOOD INSURANCE PROGRAM

LOW-DENSITY RESIDENTIAL USES 1DU/2.5 ACRES

ULTRASYSTEMS	Source: ULTRASYSTEMS, INC.	Title: ALTERNATIVE 5 LAND USE MAP	38

4.5.1 Land Use

Zoning

Land Use Alternative No. 5 would require zone changes in portions of the existing Residential Agriculture zone to allow for the increased residential densities proposed. Residential land use areas would be extended by allowing very low density residential development of one dwelling unit per 2.5 acres within the 55 Ldn noise contour of Hemet-Ryan Airport. No residential development would be allowed within the floodway. Development would also be restricted on steep hillside slopes. Construction of the interim flood control channel would permit residential development within the flood plain according to the Flood Insurance Program. Zoning designations would have to reflect these land use constraints. The existing zoning allows a maximum population of 7,500 people. This alternative could generate a population growth of 6,334 people in Hemet and 4,066 people in the County, or a total of 10,400 people in the Southwest Area. Approximately 155 acres of industrial and 12 acres of commercial land uses will be provided.

General Plan

Land Use Alternative No. 5 will deviate from the existing General Plan by allowing moderate population growth in the Southwest Area. This plan moderately limits potential growth in the Southwest Area while providing 1,762 acres of land suitable for residential development. Maximum gross densities allowed within the 55 Ldn noise contour would be one dwelling unit per 2.5 acres or more. No mobile homes or multiple-family units will be allowed within the 55 Ldn noise contour. Gross densities outside the 55 Ldn noise contour would be 5.4 dwelling units per acre. The current General Plan requires a 2 acre minimum lot size with an allowable density of one dwelling unit per two acres.

This alternative will require a change in the existing Noise Element of the General Plan by allowing very low density residential development within the 55 Ldn noise contour of Hemet-Ryan Airport. This change in the Noise Element will not provide the airport with protection from encroachment and incompatible uses. Within the 55 Ldn noise contour, some land previously slated for industrial and commercial uses may be utilized for residential development. This

alternative deviates from the Hemet-Ryan Land Use Plan which permits low intensity residential uses (0-.4 D.U./A.C.) within the 55 Ldn noise contour, provided that average interior noise levels will not exceed 45 dB.

Due to the reduced land use constraints, more land will be available for residential development. Open space and agricultural land uses will be reduced to 50 percent of the project area, including the flood control channel and steep slopes. By increasing the growth capacity of the Southwest Area, redevelopment and infill of existing developed areas in Hemet would not be encouraged until the ultimate population capacity is reached.

In accordance with the Hemet Open Space and Conservation Element, the steep hillside slopes will be preserved as a scenic resource.

Mitigation Measures

The effects of the increase in density could be mitigated to some extent by the use of multiple and cluster housing which provides increased open space.

There should be early coordination between Riverside County, LAFCO and the City of Hemet to assure that future development of unincorporated area surrounding Hemet either be annexed into the City or conform with the Hemet General Plan. This coordination between these jurisdictions will provide the City with necessary planning controls mitigating incompatible land uses and conflicting development standards.

Unavoidable Adverse Impacts

Open space will be reduced to 50% of the Southwest Area. Approximately 1,242 acres of prime agricultural land will be lost.

4.5.2 Archaeology

Proposed construction-related activities could constitute adverse impacts to the archaeological resources discovered at the RIV-1162 site. In addition, resources may be present on unsurveyed portions of the Southwest Area and will also be subject to destruction. The old cemetery on Stetson Avenue is not expected to be impacted by the project. Once approved, new construction in the Southwest Area could then add pressure to develop

adjacent areas east and northwest of the site where archaeological findings have appeared and areas of Indian activity have been recorded. The entire Page Ranch property and the Sundberg property at Stetson and Cawston have been surveyed by a qualified archaeologist. These properties do not contain archaeological resources.

Mitigation Measures

The RIV-1162 archaeological site should be resurveyed for collection of any surface debris. Based on these findings, a final report should be prepared to provide mitigation measures and recommendations. In addition, future development sites must be surveyed for archaeological resources and mitigation measures recommended on the basis of future finds.

Unavoidable Adverse Impacts

Possible destruction, impairment or revomal of artifacts and features.

4.5.3 Vegetation and Wildlife

Biological resources in the Southwest Area have previously been disturbed by agricultural uses. However, the project will impact the existing vegetation and wildlife on the site by construction related clearing of vegetation and alteration of topography during site preparation. The presence of structures, roads and human activity will also impact wildlife after construction. The project will result in the dislocation or destruction of existing vegetation and wildlife species on the site.

Only 50% of the Southwest Area will be preserved as open space, including the flood control channel and steep hillside slopes. However, even these remaining open space areas will be disturbed by the adjacent construction and resident activities. Landscaping will result in the introduction of plant species not present now and may attract animals that are now infrequent or absent. Watering and fertilizing of lawns will allow new species of plants to grow in areas adjacent to the lawns. The presence of structures and fences will restrict the movement of coyotes, rabbits and other mammals and amphibians.

Mitigation Measures

The proposed preservation of 50% of the site as open space will somewhat mitigate the impact upon vegetation and wildlife. The natural and undisturbed areas will provide a habitat for wildlife to relocate. Biological resources surveys, prior to development would provide assurance that no rare or endangered plant and wildlife species will be disturbed.

Unavoidable Adverse Impacts

Existing vegetation and wildlife species in the Southwest Area will be dislocated or destroyed.

4.5.4 Climate and Air Quality

Short-Term Impacts

The construction phase of development associated with the project will produce two sources of air pollution emissions. These are exhaust emissions from construction and grading equipment and dust generated as a result of earth movement and equipment traffic over dust ladden roads. The dust emissions may cause a nuisance to any persons who reside or park motor vehicles in the vicinity of the project. However, the emissions will be of short-term duration.

Long-Term Impacts

Long-term impacts associated with the project consist of emissions generated by the following sources:

Stationary	Mobile
Off-site generation of electricity for project On-site use of natural gas for cooking, space hearing, and water heating.	Motor Vehicles

Stationary Sources

Stationary on-site emissions from natural gas combustion associated with the project are presented in Table 33. As shown in the Table the contribution of project on-site stationary emissions to the total emissions projected for Riverside County is nearly negligible.

TABLE 33

LAND USE ALTERNATIVE NO. 5
PROJECT EMISSIONS FROM USE
OF NATURAL GAS (ON-SITE)

POLLUTANT	EMISSION FACTOR* LBS/1000 FT^3	PROJECT EMISSIONS** LBS/DAY	TOTAL 1195 EMISSIONS FOR RIVERSIDE COUNTY*** TONS/DAY	PERCENT OF TOTAL COUNTY EMISSIONS
Carbon Monoxide	Negl	Negl	203	Negl
Total Hydrocarbons	Negl	Negl	40	Negl
Nitrogen Oxides	0.116	193	48	0.2
Sulfur Oxides	Negl	Negl	6	Negl
Particulates	0.018	30	29	Negl
TOTAL (average)	--	223	326	(Negl)

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District. February, 1977.
** Assumes 50.0 million cubic feet of gas/month.
*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

Negl = Negligible

The stationary emissions resulting from the project electrial energy demand will occur off-site at electrical power generating plants (nuclear, oil and hydroelectric) located throughout the utilities generating network. The total emissions due to the generation of electricity for this project are given in Table 34 assuming the power is provided by an oil burning power plant.

Mobile Sources

An estimate of the total motor vehicle emissions generated by traffic associated with the proposed project is shown in Table 35. As indicated in the Table the average contribution of project motor vehicle emissions to the total projected emissions for Riverside County for the year 1995 is about 0.5 percent upon project completion.

Total Emissions

The total pollutant emissions associated with the project are presented in Table 36.

Mitigation Measures

1. Normal wetting procedures should be followed during the site grading operations to reduce dust emissions.

2. The Southern California Association of Governments (SCAG) and South Coast Air Quality Management District are currently preparing in cooperation with City and County governments an Air Quality Management Plan (AQMP) designed to achieve and maintain Federal and State air quality standards within the South Coast Air Basin. The AQMP is to be submitted for approval to the State Air Resources Board by January 1979 prior to submittal to EPA as a revision to the State's Implementation Plan. The AQMP is to identify the need for further control of stationary and mobile sources, alternate transportation strategies, and measures to reduce adverse air quality impacts associated with further growth and development. The proposed project should be reviewed for consistency with the objectives of the AQMP if finalized prior to project approval.

3. Provide for convenient bus stop locations.

TABLE 34

LAND USE ALTERNATIVE NO. 5
EMISSIONS ASSOCIATED
WITH ELECTRICITY GNERATION (OFF-SITE)

POLLUTANT	EMISSION FACTOR* LBS/1000 KWH	PROJECT EMISSIONS** POUNDS/DAY
Carbon Monoxides	0.2	47
Total Hydrocarbons	0.18	43
Nitrogen Oxides	2.3	545
Sulfur Oxides	2.6	616
Particulates	0.401	95
TOTAL		1,346

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.
** Assumes 7.1 million KWH/month.

TABLE 35

ESTIMATED MOTOR VEHICLE EMISSIONS
ASSOCIATED WITH LAND USE ALTERNATIVE NO. 5

POLLUTANT	EMISSION* FACTOR (GRAMS/MILE)	ESTIMATED EMISSIONS** (LBS/DAY)	TOTAL 1995 EMISSIONS FOR RIVERSIDE COUNTY TONS/DAY***	PERCENT OF TOTAL COUNTY EMISSIONS
Carbon Monoxides	3.8	2,260	203	0.6
Nitrogen Oxides	0.7	417	48	0.4
Hydrocarbons	0.5	298	40	0.4
Sulfur Oxides	0.1	60	6	0.5
Particulates	0.3	179	29	0.3
TOTAL (Average)	--	3,214	326	0.5

* 1995 Emission Factors, Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.
** Assumes 270,000 vehicle miles traveled.
*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

TABLE 36

ESTIMATED TOTAL PROJECT EMISSIONS

POLLUTANT	TOTAL EMISSIONS LBS/DAY
Carbon Monoxide	2,307
Total Hydrocarbons	341
Nitrogen Oxides	1,155
Sulfur Oxides	676
Particulates	304
TOTAL	4,783

Unavoidable Adverse Impacts

There will be additional emissions emitted into the southeastern portion of the South Coast Air Basin. These emissions will result in an incremental decrease in the quality of the air.

4.5.5 Geology and Soils

Development on the flat alluvial valley area will result in only slight immediate impact as development will be phased over many years. Development within the floodplain must be protected in accordance with the Flood Insurance Program which requires that finish floor elevations on all construction in the floodplain are 18 inches above the 100-year flood level. This grading requirement would result in approximately 2 to 3 feet of fill over approximately 1200 acres of developable land.

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone. The Southwest Area is about 2 miles from the San Jacinto Fault Zone and is underlain by alluvium of intermediate thickness. Earthquake shaking is expected to be strong to severe as a result of movement on any one of several faults within the San Jacinto Fault Zone. Settlement of soils due to groundshaking could pose a major hazard, especially in areas of fill. Slippage and landslide could possibly occur in the Domenigoni Mountains. The "Land Use/Risk Matrix" in the City of Hemet Seismic Safety and Public Safety General Plan Elements (1976) indicates that light industrial, low-density residential, warehousing and storage, and agriculture and park uses are "provisionally suitable" for most of this area. The increased residential densities proposed would expose a greater population to the risk of human and structural loss.

Mitigation Measures

Engineering geologic investigations should be required for all new construction within the Southwest Area. Construction according to the Earthquake Regulations of the Uniform Building Code and recommendations of a qualified structural engineer should mitigate the risk of human and structural loss.

Unavoidable Adverse Impacts

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone. The landform will be altered by grading for structures and flood control improvements.

4.5.6 Hydrology

Under this alternative land use plan, residential development would not be permitted within the floodway, which includes approximately 519 acres. As previously shown on the Floodway and Flood Plain Map, Figure 12, approximately 90 percent of the Southwest Area is within a 100-year flood plain. Development within the flood plain will be permitted according to the standards set forth in the Federal Flood Insurance Program. Peak discharges occurring during a 100-year storm from the Stetson Avenue Channel at the Hemet Storm Channel will reach 1,100 cfs and will reach 9,200 cfs from Salt Creek at Lyon Avenue. These channels are not capable of handling these peak discharges and the resultant flooding will occur in over 60% of the Southwest Area.

Mitigation Measures

Both the City and the County have mechanisms to control and guide the development of flood plain areas as proposed in the Land Use, Conservation and Open Space Elements of the County and City General Plans. The Federal Flood Insurance Program will mitigate the flood hazard.

Unavoidable Adverse Impacts

The Southwest Area will be subject to flood hazards.

4.5.7 Noise

Impacts

The noise impacts considered in this section result from the following noise sources:

- GRADING AND CONSTRUCTION EQUIPMENT.
- FARMING EQUIPMENT.
- FUTURE AIRCRAFT OPERATIONS AT HEMET-RYAN AIRPORT.
- TRAIN TRAFFIC.
- FUTURE HIGHWAY TRAFFIC.

Development within the Southwest Area is expected to take place through the year 2000. Due to the phasing of residential development, the following interim noise impacts could be expected:

1) Short-term impacts due to grading and construction activities could occur within noise sensitive uses such as residences and schools which would be in close proximity to construction activities. Noise impacts would be nuisance oriented; i.e., annoyance, speech communication interference, and sleep interference (for individuals who normally sleep during daytime hours). Because construction activity is generally limited to daytime hours, no adverse noise impact would be expected during the nighttime period.

2) Residential uses (receptors) located within the Southwest Area immediately adjacent to agricultural uses could experience adverse noise impacts due to late evening and early morning alfalfa harvesting activities. The primary noise impact would be sleep interference.

In an effort to minimize potential adverse noise impacts associated with aircraft operations at Hemet-Ryan Airport, the City of Hemet has established a set of land use compatability criteria. Under Land Use Alternative 5 , residential development will not be permitted within an environment which has an annual average L_{dn}* of 60 dBA or greater (see Figure 38). In comparison, California State Law specifies a noise standard of CNEL (L_{dn}) $\geq$ 65 dBA.** Therefore, the criteria established by the City of Hemet

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* Refer to Appendix A for an explanation of community noise exposure levels.
** Airport Noise Regulation-California Administrative Code, Title 21, Chapter 2.5, Section 5000-5080.4.

for Land Use Alternative 5 is almost 5 dBA lower than that required by California State Law. The primary reason is that the City of Hemet has established this standard in order to provide quietness as an environmental amenity of future residents.

The contour values illustrated in Figure 14, represent the "annual average" condition predicted for 1986, however, a qualifying statement is in order. Based on the data contained in the background report for Hemet-Ryan Airport noise contours (see Appendix A), the contour map does not necessarily represent the average day condition. Generally, fire bombers only use the airport during emergencies. Calculated as part of the annual average condition, fire bomber related aircraft (the C-119J specifically) tend to skew the results (they are significantly noisier than the general aviation aircraft), and therefore, the following two conditions will exist:

1) On days when fire bomber activity is not taking place, the noise environment would be approximately 5 dBA lower than shown for the average annual condition. This clearly represents an acceptable noise environment for future residents of the Southwest Area.

2) On days when fire bomber activity is taking place, the L_{dn} will be considerably higher than the average annual condition. It is possible that residents located nearest the 55 Ldn contour line may be annoyed by fire bomber aircraft related noise events. The City of Hemet could receive noise complaints.*

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* Refer to Appendix A, Response to Various Community Noise Levels.

Due to the limited amount of train traffic within the City of Hemet, no significant adverse noise impacts are expected within the Southwest Area. However, if industrial growth does occur in the future, and as a result creates a demand for additional rail service, future land use conflicts could result. Therefore, proposed development in the vicinity of the railroad right-of-way should be carefully considered by the City before any "noise sensitive" development is approved.

Highway traffic noise is expected to be the primary noise source within the Southwest Area. Noise levels are expected to increase significantly as more and more people move into the area. In general, highway traffic noise levels will be highest in areas located adjacent to the primary roadways in the study area. Ultrasystems has estimated noise levels within the vicinity of roadway segments as applicable to residential development for Land Use Alternative 5.* Applicable roadway segments are identified in Figure 39 and the results of calculated L_{dn} exposure levels are contained in Table 37.

The criteria used to assess and prevent adverse highway traffic noise impacts are presented below:

Exterior Environments - Not to exceed L_{dn} of 55 dBA
Interior Environments - Not to exceed L_{dn} of 45 dBA**

Based on the preceeding criteria and the data presented in Table 37, noise mitigations would be necessary in proposed residential areas where the estimated highway noise environment exceeds 55 dBA.

Based on Land Use Alternative 5, development within the planning area is expected to generate an ultimate 64,550 vehicle trip ends per day. The majority of these trips will be oriented towards areas in the City. The result of additional vehicular movement will be a significant unavoidable increase in traffic noise emission levels within the City of Hemet.

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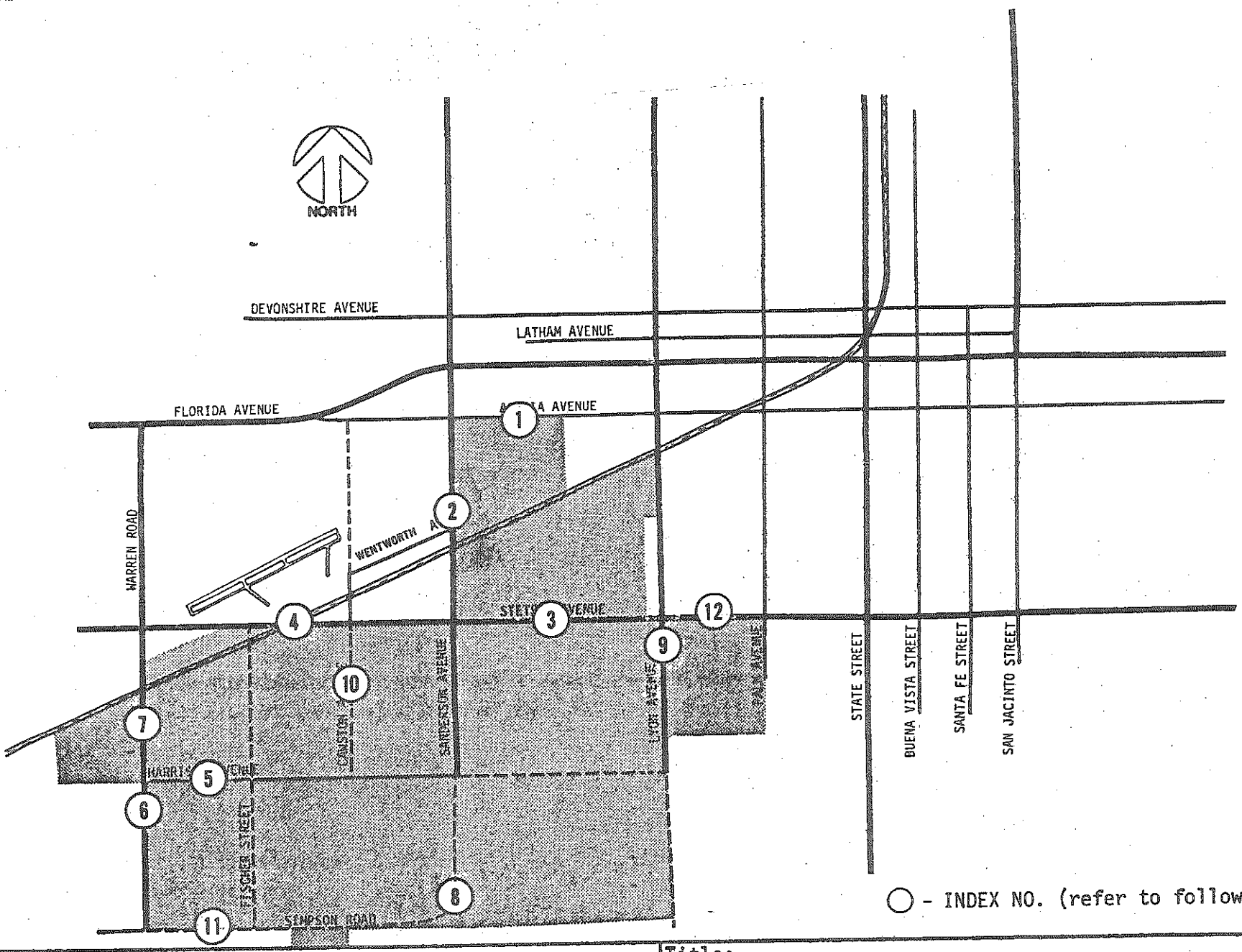
* See Appendix A for Highway Noise Model Assumptions.

** California Administrative Code Title 25. California Noise Insulation Standards. (Assumes a windows-closed condition).
NOTE: An acoustical analysis is required if residential structures are to be located within a noise environment (exterior) of 60 dBA or greater showing that the structure has been designed to meet the 45 dBA interior requirement.



Source:

ULTRASYSTEMS, INC.

Title:

LAND USE ALTERNATIVE 5
NOISE IMPACTED ROADWAY SEGMENTS

39

TABLE 37

CALCULATED L_{dn} EXPOSURE LEVELS

(LAND USE ALTERNATIVE 5)

INDEX NO.	ROADWAY SEGMENT	DISTANCE TO NOISE CONTOURS EXPRESSED IN FEET FROM CENTERLINE OF ROADWAY		
		55 dBA	60 dBA	65 dBA
1	Acacia-East of Sanderson	73	34	16
2	Sanderson-South of Acacia	232	108	50
3	Stetson-East of Sanderson	425	197	92
4	Sanderson-Stetson/Harrison	304	141	65
5	Harrison-East of Warren	52	24	11
6	Warren-South of Harrison	237	110	51
7	Warren-North of Harrison	233	108	50
8	Simpson-South of Harrison	314	146	68
9	Lyon-South of Stetson	163	75	35
10	Cawston-Stetson/Harrison	82	38	18
11	Simpson-Fisher/Warren	115	53	25
12	Stetson-Lyon/Palm	372	173	80

Mitigation Measures

The following mitigation measures are recommended:

- Grading and construction activities should not be permitted between the hours of 7 PM and 7 AM, and on Saturday, Sunday, and legal holidays.
- Agricultural property owners within or adjacent to the Southwest Area should limit agricultural operations as much as possible during late evening and early morning hours. Farming equipment which must be operated during the noise sensitive hours should be equipped with adequate and well maintained exhaust mufflers.
- If train operations increase enough to create a significant adverse noise impact, noise mitigation measures should be considered. Land uses such as residences and school would not be suitable for development at locations immediately adjacent to the railroad right-of-way. Residences which would be located in the general vicinity of the railroad should be screened from railroad noise sources by solid sound barriers such as earthen berms or earthen berm/walls. Project design should stress the orientation of structures away from the railroad including windows and other openings.
- A detailed acoustical analysis will be required for residential development located within the 60 dBA noise contour from highway noise sources. The analysis is required in order to prove that the indoor environment will be reduced to a level of 45 dBA or less*.
- Highway noise mitigation measures such as acoustical site planning and/or the design of earthen berms or berm/wall combinations will be necessary in order to reduce noise to acceptable levels (exterior-55 dBA or less) for residential development within the Southwest Area.

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* Title 25, California Noise Insulation Standards.

NOTE: Residential structures can be utilized to attenuate noise through proper acoustical planning. Outdoor areas can be effectively screened from unwanted noise by incorporating the residential structure as a sound barrier. However, if this concept is used to provide an acceptable interior environment, all windows, vents and other normal openings should be oriented away from the highway noise sources.

- Heavy trucks (3 axles or more) are a major source of highway noise. Therefore, limit heavy truck traffic to the following roadway segments (within or adjacent to the Southwest Area):

  - Warren
  - Stetson-Warren/Airport Drive

- The mitigation of highway noise outside the Southwest Area may only be practical or economically viable for new rather than existing noise sensitive land uses.

Unavoidable Adverse Impacts

Traffic generated in the Southwest Area will create a significant increase in traffic noise levels locally and in the City of Hemet.

4.5.8 Traffic and Circulation

Impact

The traffic impacts that would result from the development of the Southwest Hemet study area would be incremental in nature and would relate to the degree of completion of the areas various development components. However, since a developmental time frame has not been established, this analysis considers the impacts that could be anticipated at the full build out according to the specified alternative. Table 38 presents a traffic generation forecast for the Southwest Hemet study area once fully developed according to Alternative 5. Traffic generation estimates are included for the AM peak hour and PM peak hour as well as 24 Hour volumes for an average weekday. Generation factors included in Table 38 have been taken from studies compiled by Caltrans (California Department of Transportation) and from studies compiled in the Institute of Transportation Engineers Information Report on Trip Generation.

Traffic Generation is expressed in vehicle trip ends where a trip end is a one-way vehicular movement either entering or departing a generating land use. Summation of the vehicle trip ends generated by the various land use components included in the fifth development alternative for the southwest area, would produce an estimated 64,550 vehicle trip ends per day evenly distributed between inbound and outbound. An estimated 6,310 vehicle trip ends would be expected to occur during the AM peak hour (2,920 inbound and 3,390 outbound) while just over 7,500 vehicle trip ends (4,090 inbound and 3,430 outbound) would be generated during the PM peak hour.

It should be noted that the traffic generation potential listed in trip ends in Table 38 is somewhat higher than the number of vehicles that would physically be added to the adjacent street system. Each vehicle trip has two trip ends, one at the origin of the trip and one at the destination. If all vehicle trips generated within the Southwest Hemet study area had origins or destinations outside the combined study area, the total number of vehicle trip ends generated would equal the total number of vehicle trips produced within the study area. However, a certain percentage of residential units will interact trip wise with each other as well as other uses to be contained within the study area, i.e., any commercial centers the Seven Hills Golf Course, the Hemet Ryan Airport, and any future industrial development.

TABLE 38

TRAFFIC GENERATION FORECAST - ALTERNATIVE 5

Development	AM Peak Hour			PM Peak Hour			24 Hour
	Inbound	Outbound	Total	Inbound	Outbound	Total	2-Way
Hemet Residential(5400D.U.) Generation Factor * (T.E./D.U.) **	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	1620	3240	4860	3780	2160	5940	54000
Industrial(155 acre) Generation Factor (T.E./D.U.)	8.4	1.0	9.4	2.0	8.2	10.2	68.1
Generated Vehicle Trips	1300	150	1450	310	1270	1580	10550
Total Traffic Generated	2920	3390	6310	4090	3430	7520	64550

* Section 210, Trip Generation, An Informational Report of the Institute of Transportation Engineers, 1976.

** T.E./D.U. = Trip Ends/Dwelling Unit. A trip end is a one-way vehicular movement either entering or leaving the generating land use.

Therefore, this one-to-one relationship between vehicle trip ends and vehicle trips does not apply. The number of vehicle trips in terms of vehicles physically added to the adjacent street system is somewhat less than the total number of trip ends produced by the various components of the total study area. For the purposes of this analysis therefore, it has been assumed that 25 percent of the estimated vehicle trip ends to be generated by development within the study area would be completely internal to the area.

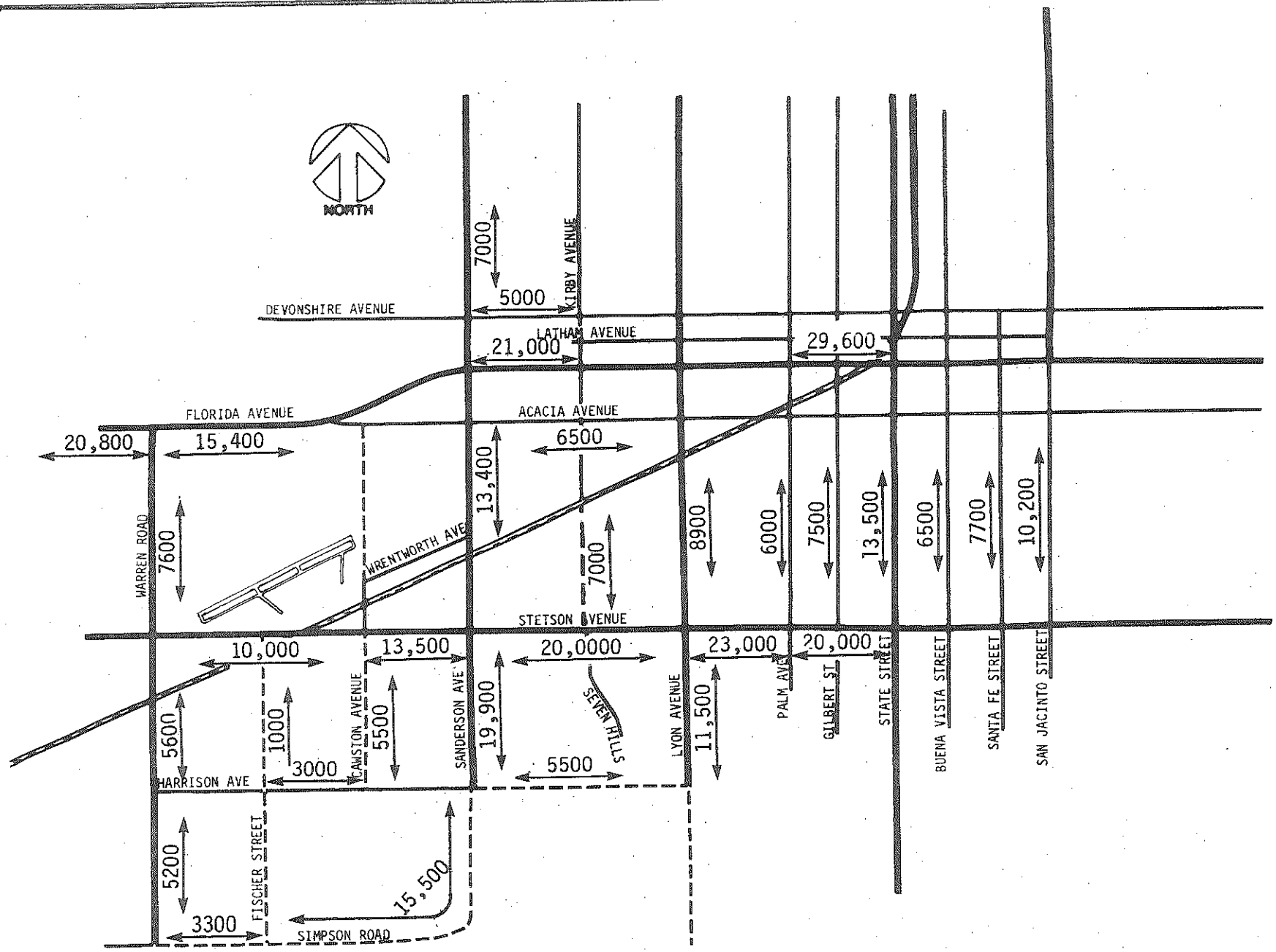
In addition, a daily traffic generation rate of 10 trip ends per dwelling unit has been used for the projections made in this report. This generation rate is generally associated with single family detached dwelling units. Other residential uses such as multi-family townhouses or condominium units, apartments and mobile home parks typically have lower traffic generation rates. For this reason the the traffic generation forecast listed in Table is considered conservatively high.

The traffic generation potential associated with the various land uses within the southwest study area has been distributed and assigned on a component by component basis for each land use designation contained within the specified alternative. The current area roadway system and existing travel patterns, the current and projected population and employment distribution, a review of potential development surrounding the study area, and projected roadway expansion as reflected in the current Master Plan of Highways of both the City of Hemet and County of Riverside were factors considered in projecting traffic distribution. As previously mentioned, a percentage of the traffic generated within the study area is expected to be internal to the area itself. The major attraction of the trips generated that would be external to the study area, would still be expected to be to the north and east of the study area. On this basis, roughly 60 percent of the traffic generated by development within the Southwest Hemet area is expected to be oriented to the north and east of the study area. Fifteen percent is projected to be oriented to the west with the remaining 25 percent completely internal to the study area.

The assignment of the Southwest Hemet study area traffic to various links of the master planned highway system was not capacity restrained in that future total volumes at anyone location were not limited to the capacity associated with the functional classification of that link as shown on the City and County master plans. Figure 40 carries out the distribution and assignment procedure and illustrates the future total traffic volumes on those roadways shown based on anticipated travel desires. The traffic volumes shown in Figure 40 represent a summation of existing roadway volumes and those volumes projected to be added as a result of development in the Southwest Hemet study area. They do not reflect any additional growth in traffic volumes that might occur as a result of development in other areas of Hemet.

As illustrated in Figure 40, the primary traffic impact as a result of development in the Southwest Hemet Study area, would be experienced along Stetson Avenue which if the capacity were available would realize a traffic volume increase of roughly 15,000 vehicles per day. This would result in daily traffic volumes on Stetson Avenue of between 20,000 and 23,000 vehicles per day. Sanderson Avenue would also receive a significant increase with daily traffic volumes ranging from 13,400 vehicles per day north of Stetson Avenue to just under 20,000 vehicles per day south of Stetson Avenue. Simpson Road would be expected to carry 15,500 vehicles per day, while Lyon Avenue is projected to carry just under 9000 vehicles per day north of Stetson Avenue and roughly 11,500 vehicles per day south of Stetson Avenue.

Kirby Avenue currently ends just south of Acacia Avenue however it will be necessary to complete Kirby Avenue southerly to Stetson Avenue as the southwest area develops. Kirby Avenue, when completed to Stetson Avenue, would provide relief to traffic volumes projected for Sanderson Avenue as well as provide access to that portion of the Southwest Study area it traverses and to the Seven Hills development. As previously mentioned, Lyon Avenue and Palm Avenue run through residential areas (in particular those areas immediately north of Stetson Avenue developed into mobile home lots) that may preclude future roadway widening thereby limiting their respective traffic carrying capabilities. This fact further illustrates the importance of Kirby Avenue to the areas circulation system as future development occurs.



Source:

Linscott, Law & Greenspan, Inc.

Title:

Daily Traffic Distribution Alternative 5

40

Similarly, Gilbert Street and State Street would become secondary north-south routes for traffic generated and attracted to the Southwest Hemet study area. These two roadways are projected to carry approximately 7500 and 13,500 vehicles per day, respectively. Other impacted roadways and their respective projected traffic volumes are shown on the distribution figure.

Twenty-four hour roadway capacities were estimated based on the master planned cross-sections shown in Figure 18 and on the following assumptions: an ultimate population of between 25,000 and 40,000, a peak hour factor of .85, 5 percent trucks, 10 percent right turns, and a G/C ratio of .50. The resulting capacities that were determined by these assumptions were as follows:

Functional Classification	Capacity
Collector	11,000
Secondary	17,000
Major	20,000
Arterial	21,500

It should be noted that the actual capacities could vary from those calculated above as the area develops and actual traffic characteristics can be determined. Roadway capacity when evaluated on a corridor basis, for instance, often results in a range in capacity values (for example, traffic volumes of between 20,000 and 30,000 vehicles per day are commonly associated with arterial highways). This range depends upon such things as access control, intersection spacing, and signal progression. However, the capacities calculated above are believed to be reasonable and appropriate values for planning purposes.

The calculated roadway capacities above and the projected future roadway volumes shown in Figure 40 were used to determine a recommended circulation system for the various alternatives proposed. Capacity deficiencies and surpluses were balanced among parallel routes to develop a recommended arterial highway system. This procedure assumed that the local circulation system would be designed in such a manner so as to more evenly distribute study area traffic to the arterial roadway system for a particular travel orientation. The recommended circulation networks also assumes intersection widening techniques would be implemented to the next highest functional classification

where that higher classification would not be justified over an entire roadway link. It has also been assumed that the proposed circulation system would be developed so that the various roadway segments would be constructed out of the existing floodway, or in such a manner that access would be maintained should a flood occur.

On this basis then, the following master planned highway cross-sections are recommended for roadways in the Southwest Hemet study area should it develop according to Alternative 5.

Roadway	Classification
Sanderson Avenue	Secondary/Major
Stetson Avenue	Arterial
Acacia Avenue	Collector
Harrison Avenue	Collector
Simpson Road	Secondary/Major
Warren Road	Collector/Secondary
Cawston Avenue	Collector
Fischer Street	Collector
Lyon Avenue	Collector/Secondary
Kirby Avenue	Collector

To individually calculate the estimated capacity utilization at each intersection within the study area is beyond the scope of planning at the general plan level. Thus, in this report, hypothetical capacities have been utilized and a more refined analysis should be made as the area develops.

It becomes apparent, when balancing capacity deficiencies and surpluses among parallel routes, that another east-west route, paralleling Stetson Avenue to the south, would be essential to the areas development. Harrison Avenue is currently master planned as a secondary highway between Warren Road and Lyon Avenue on the Hemet-San Jacinto General Plan and between Warren Road and State Street on the Circulation Element of the Riverside County General Plan. This master planned secondary highway would provide the additional east-west route needed to accommodate future traffic volumes projected to occur as a result of development planned in the area. It should be noted however,

that a golf course has been constructed and is in operation in that area that would include the easterly extension of Harrison Avenue as currently shown on the respective Highway Master Plans. It may be necessary, therefore, to amend the existing Highway Master Plans (Hemet and Riverside County) to reflect a more southerly alignment of Harrison Avenue should this new alignment prove more advantages to the City of Hemet and development in the Southwest area.

Signalization of the major intersections within and immediately adjacent to the Southwest Hemet Study area would undoubtedly be warranted upon completion of the entire development. These intersections would include Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue and Sanderson and Acacia Avenue. However, since traffic signals should be installed only after positive evidence of there need has been demonstrated, it is recommended that specific intersections be evaluated as necessary prior to ultimate occupancy of the areas planned development.

The development of the Southwest Study area according to this alternative would generally impact all transportation facilities in the Hemet area. It is difficult however, to quantify traffic impacts at locations more distant from the study area. This is due to the fact that traffic volumes generated by land development within the area tend to dissipate or "decay" as the distance from the generating source and a particular location under consideration increases. It can reasonably be expected however, that the primary north-south routes between Stetson Avenue and Florida Avenue would receive a significant amount of study area generated traffic. Also, major trip attractors are still expected to be located along Florida AVenue for some time in the near future. Therefore, traffic generated by development within the Southwest Hemet study area, could be expected to further impact traffic conditions along Florida Avenue.

As previously mentioned the only public transportation service to the area at the present time is provided by a dial-a-ride system. Due to the lack of public transportation to rural areas such as Hemet those residents who do not own there own automobiles are dependent on a relative, friend or neighbor to provide for any transportation needs. When these sources or public transportation systems are unavailable they remain isolated. The Riverside Transit Agency is attempting to alleviate some of

the problems which confront many transportation disadvantaged individuals in the county. The development of the southwest area of Hemet may inable public transportation into this area to become more economically feasible thus enhancing the efforts to improve public transportation facilities.

When specific project site plans for the various components of the southwest area are developed, provisions should be made for adequate off-street parking. General parking demands for several common types of land uses and off-street parking requirements are listed in the Riverside County zoning ordinance and presented in Table 39.

The development of the Southwest Hemet study area according to development Alternative 5 would result in an estimated daily VMT (vehicle miles travelled) increase of roughly 323,000 miles per day.

Mitigation Measures

The following measures are suggested as a means of mitigating potential traffic impacts generated by the development of the Southwest Hemet Study area as proposed herein. The measures listed below would have the affect of improving anticipated traffic conditions with regard to both project related traffic and total area traffic which would result from other future growth in the area.

- The construction and improvement of the following roadways to their recommended master plan cross-section will be required to accommodate the anticipated traffic volumes that are projected from development within the Southwest Hemet study area:

Roadway	Master Plan Cross-Section
Sanderson Avenue	Secondary/Major
Stetson Avenue	Arterial
Acacia Avenue	Collector
Harrison Avenue	Collector
Simpson Road	Secondary/Major
Warren Road	Collector/Secondary
Cawston Avenue	Collector
Fischer Street	Collector
Lyon Avenue	Collector/Secondary
Kirby Avenue	Collector

TABLE 39

PARKING REQUIREMENTS

TYPE OF LAND USE	SPACES REQUIRED[1]	ORDINANCE 348[2]
Retail Store*	1 per 350 sq.ft. GFA**	1 per 250 sq.ft. GFA
Office Building	1 per 300 sq.ft. GFA	1 per 250 sq.ft. GFA
Restaurant (sit down type)	1 per 4.5 seats	1 per 45 sq.ft. of serving area
Single-Family Dwelling	2 per unit	1 per D.U.
Multi-Family Dwelling	1.75 per unit	1 per D.U.
Shopping Center 30,000-75,000 sq.ft. GFA	7 per 1,000 sq.ft. GFA	1 per 150 sq.ft. GFA

* Not in a shopping center.

** GFA - Gross Floor Area

SOURCE: [1] Traffic Engineering for Small Cities and Counties, Automobile Club of Southern California, p. 11.

[2] Riverside County Zoning Ordinance No. 348, Section 18.12.

- Construction of all planned local collector streets to the standards set forth in the Riverside County General Plan and the Hemet-San Jacinto General Plan.

- The installation of traffic signals at the following intersections will undoubtedly be warrented.

Signalization of the major intersections within and immediately adjacent to the Southwest Hemet Study area would undoubtedly be warranted upon completion of the entire development. These intersections would include Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue and Sanderson and Acacia Avenue.

However, as previously discussed, the installation of traffic signals should be made only after positive identification of their need has been established and it is recommended that these intersections be evaluated as necessary prior to ultimate occupancy of the areas planned development.

- Promote ride-pooling (car-pools/van-pools) with regard to persons employed in any planned commercial and industrial activities. This would have the potential of reducing daily commuter traffic and on-site parking requirements.

- Demand-responsive (dail-a-ride) public transit should be encouraged. Where practical small vans or busses should be used. Provision of a public transit system will reduce potential auto travel, and provide mobility to those residents who are either too young to drive, do not drive, no longer drive, or are not capable of bicycling.

- The feasibility of expanding the Riverside Transit Agency's transportation service in the Hemet area should be considered.

- Control of access to the arterial and major street system as outlined in the Riverside County Subdivision Ordinance No. 460 should be encouraged. Control of access reduces the number of potential traffic conflicts, smoothes out traffic flow and increases traffic capacity.

- Provide sufficient off-street parking to meet anticipated demand for each planned use, taking into account the County zoning ordinances and the potential for overlapping or joint use of parking areas serving such complimentary land uses as may be developed.

- Provide separate bicycle and pedestrian pathways throughout the project as a means of promoting alternative forms of movement. For safety, convenience and efficiency, these systems should be separated from the vehicular traffic system and from one-another.

- Establish land use patterns, intensities and relationships which would reduce vehicle trip making characteristics and promote the use of alternative modes of travel such as bicycles, walking and transit. For example, increased residential densities adjacent to the planned commercial activities and open spaces designed with integral bike paths and pedestrian ways.

Unavoidable Adverse Impacts

Land Use Alternative No. 4 could produce an estimated 149,000 vehicle trip ends per day evenly distributed between inbound and outbound.

4.5.9 Open Space and Conservation

Land Use Alternative No. 5 would reduce the amount of open space in the Southwest Area by over 50 percent. Over 1,929 acres of open space will be reclaimed for residential, commercial and industrial land uses. The remaining 50 percent, including the flood control channel and steep hillside slopes, will remain in the current agricultural and open space use. Development would be restricted on steep hillside slopes over 25%, consistent with the Hemet Open Space and Conservation Element.

The Salt Creek floodway will remain as open space. Portions of the flood plain may be lost as open space to residential development. The proposed improvements to Salt Creek will open up agricultural land to urban development possibilities.

The Southwest corner of the Southwest Area, which is unincorporated County land, is the only part of the project area with an agricultural preserve status. Portions of this agricultural preserve may be developed for residential use upon completion of the interim flood control channel. In addition, a major portion of the site includes Class I and II capability soils, considered prime agricultural land. This land will be lost as residential development of the area occurs. Agriculture has been of great value to the community, both in terms of economic gains and as a means of preserving open space. The loss of agricultural land is irreversible. The proposed residential development in the Southwest Area may encourage property values to rise on adjacent agricultural property, particularly County land in Diamond Valley to the east and land west of Hemet.

The Open Space and Conservation Element recommends a community park of between 30 and 40 acres to serve Hemet and the developments serving the City. The Southwest Area has the potential for development of park facilities concurrent with residential development. Using the standard of 2.5 to 3 acres of open space per 1,000 population, this land use alternative could create a need for 26 to 31 acres of neighborhood parks.

Mitigation Measures

Open space should be valued as an essential complement to urban living and considered within all future development proposals. Development subdivision practices which foster open space and conservation concepts (such as clustering, zero lot lines and coverage incentives) should be encouraged.

Policies should be formulated to encourage participation in the Williamson Act Preservation Program, granting tax relief to owners of agricultural property who agrees not to develop their land for a minimum of 10 years. Additional incentives should be provided for agricultural land owners holding less than 100 acres who are not eligible for preservation status and the economic security is provides.

Unavoidable Adverse Impacts

Land Use Alternative No. 5 would reduce the amount of open space in the Southwest Area by 50 percent.

4.5.10 Public Services and Utilities

4.5.10.1 Fire Protection

Development resulting from Land Use Alternative No. 5 will impact the City of Hemet Fire Department by requiring additional manpower and equipment. The increased demand on the Department will make it necessary to provide additional stations in the southwest and northeast areas of the City. One station is proposed to be located near the airport industrial area, probably on Stetson Avenue. Another station is proposed to be constructed in the vicinity of Menlo and Sanderson Avenues.* Based on a rate of one firefighter per 1,000 population, Land Use Alternative No. 5 could necessitate the addition of 10 firefighters in the Southwest Area.

Development in the Southwest Area will increase response times and number of calls. New construction that occurs adjacent to existing development in the City is more easily serviced than more remote areas. Developments that encroach upon the flight paths and those surrounding the airport may be subject to aircraft crashes.

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* Richard Feuerstein, Assistant Fire Chief, City of Hemet Fire Department.

Mitigation Measures

New development should be located adjacent to existing developed areas, rather than in remote fringe areas, to minimize the response time. Adequate design features should be incorporated into all new developments.

Unavoidable Adverse Impacts

The increased demand will require additional manpower and equipment.

4.5.10.2 Police Protection

Development resulting from Land Use Alternative No. 5 will impact the City of Hemet Police Department by generating an increased demand for manpower and equipment. At this time, the Police Department has a need for five more officers for traffic enforcement and specialized burglary patrol. Land Use Alternative No. 5 could generate a population growth of 10,400 people in the Southwest Area, thus necessitating a minimum of 15 additional officers. (Based on a rate of 1.45 officers per 1,000 persons). Crime prevention and traffic control will become more unmanageable if the present trend continues.

Mitigation Measures

New development should be located adjacent to existing developed areas, rather than in remote fringe areas, to minimize the response time. Adequate street and security design features should be incorporated into all new developments.

Unavoidable Adverse Impacts

The increased demand will require additional manpower and equipment.

4.5.10.3 Schools

Land Use Alternative No. 5 would impact the Hemet Unified School District by generating additional students. The school system has no excess capacity; therefore, any new development would require school construction. The 1977-1978 enrollment at Hemet Senior High School exceeded the school's

capacity by nearly 80 students. The school system does not have a student generation rate due to the unusual composition of the population of Hemet. Based on the 1975 ratio of 15.4 students per 100 population, this land use alternative could generate 1,602 additional students. This ratio has remained fairly constant since 1975. Overenrollment is expected to continue at a 3 percent annual growth rate. There are no immediate plans or financing provisions for increasing the capacity of schools in the district. In addition, most of the students generated by residential development in the Southwest Area will be located outside the maximum walking distance to associated schools. Therefore, additional bus service will also be required.

Mitigation Measures

Student generation rates are uncertain at this time. SB 201, relating to builder contributions to the school system, may be a means of purchasing relocatable classrooms and putting them on existing sites. However, the cost may be prohibitive under the developer assessment program.

Unavoidable Adverse Impacts

This Land Use Alternative could generate 1,602 additional students, requiring new school construction.

4.5.10.4 Hospital and Emergency Services

It is expected that this land use alternative will require 36 additional beds at the Hemet Valley Hospital, based on a factor of 3.5 beds per 1,000 people. The hospital is currently operating at near capacity; however, an additional medical-surgical unit of 90 beds is expected to be completed by April of 1979. The new unit will accommodate the projected demands created by this alternative.

Mitigation Measures

The new medical-surgical unit will partially mitigate the additional demand created by the project. Three more floors can be added to this structure when a need for the addition is demonstrated.

Unavoidable Adverse Impacts

This alternative will increase demand for hospital and emergency services.

4.5.10.5 Electricity

Electrical service will be provided to the development proposed by Land Use Alternative No. 5 through extension of the electrical distribution facilities located along the south side of Stetson Avenue. This Land Use Alternative is expected to generate a peak demand of 54,730 kilowatts, based on the following demand rates:*

Single-family	10 KW/DU x 3,240 DU =	32,400 KW
Multiple-family	5 KW/DU x 820 DU =	4,050 KW
Mobile Home	5 KW/DU x 1,350 DU =	6,750 KW
Commercial	7 Watts/Sq.Ft. x 103,800 Sq.Ft. =	727 KW
Industrial	4 Watts/Sq.Ft. x 2,700,720 Sq.Ft. =	10,803 KW
TOTAL		54,720 KW

Electrical consumption represents a use of a non-renewable natural resource, e.g., low sulfur fuel oil. The use may be considered an irreversible impact from the proposed development. The extension of additional electric service to the Southwest Area may be considered growth-inducing.

The major fuel used in Southern California Edison Company's generating facilities is low sulfur fuel oil. The inventory of low sulfur fuel oil, combined with contractual agreements for delivery and electric customers' conservation effects, is expected to allow Southern California Edison Company to meet peak demand through 1977. Ability of Southern California Edison Company to meet peak demand periods after 1980 is dependent upon plans to proceed with construction of new generating facilities, since total system demand is expected to increase annually.**

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* Ultrasystems Planning Factors.

** H. E. Ashford, District Manager, Southern California Edison Company.

Mitigation Measures

Energy conservation measures should be required to minimize the loss of low sulfur fuel oil, a non-renewable natural resource. Southern California Edison Company should be consulted to incorporate energy conservation measures into future development proposals.

Generally, energy conservation measures include application of solar energy for water heating, use of energy-efficient appliances, building insulation, and energy conserving design of common facilities. Refer to Section 4.11 regarding energy mitigation measures.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for electrical distribution lines and service.

4.5.10.6 Gas

The Southern California Gas Company will provide service to the Southwest Area through extension of the gas supply line located in Florida Avenue. The existing supply line system has approximately 20% excess capacity over present requirements, a capacity for 7,000 people.* Land Use Alternative No. 5 could generate 10,400 people, thereby exceeding the current capacity of the service system. This land use alternative is expected to consume 49.96×10^6 cubic feet of gas per month, based on the following consumption rates:**

Single-family	9,125 cu.ft/DU/Mon X 3,240 DU =	29.6×10^6 cu.ft./Mon
Multiple-family	5,330 cu.ft/DU/Mon X 810 DU =	4.3×10^6 cu.ft./Mon
Mobile Home	5,000 cu.ft/DU/Mon X 1,350 DU =	6.8×10^6 cu.ft./Mon
Commercial	3.5 cu.ft./Sq.Ft./Mon X 103,800 Sq.Ft. =	$.36 \times 10^6$ cu.ft./Mon
Industrial	3.3 cu.ft./Sq.Ft./Mon X 2,700,720 Sq.Ft. =	8.9×10^6 cu.ft./Mon
TOTAL		49.96×10^6 cu.ft./Mon

* R. C. Wright, Distribution Planning Supervisor, Southern California Gas Company.

** City of Los Angeles, EIR Manual for Private Projects, 1975. Updated 1976.

The local distribution systems will require expanding. The timing and location of future reinforcements will depend on the actual growth rate and pattern. As a public utility, the Southern California Gas Company is regulated by the California Public Utilities Commission. They are also affected by actions of federal regulatory agencies. Should these agencies make any policy or rule changes that affect gas supply or conditions under which service is available, gas service would be provided to the area in accordance with the revised rules.

Mitigation Measures

Energy conservation measures should be required to minimize the loss of a valuable, non-renewable natural resource. Consultation should be made with the Southern California Gas Company to implement conservation measures. Possible energy conservation measures include application of solar energy for water heating, use of energy efficient appliances, building insulation and energy conserving design. Refer to Section 4.11 regarding energy mitigation measures.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for natural gas and distribution lines.

4.5.10.7 Water

The Eastern Municipal Water District (E.M.W.D.) will provide domestic water to the project through extension of existing service lines in the Southwest Area. The specific capacity of the system could not be quantified without a detailed study, but E.M.W.D. indicated that the distribution system was probably operating near capacity. At present, 75 percent of the water supplied by E.M.W.D. is sold for agricultural use. Domestic use has the primary claim to the imported Colorado River water supply of E.M.W.D. and the Metropolitan Water District of Southern California. In the event of a serious water problem, the Metropolitan Water District of Southern California has a formula for the allocation of the water it imports.*

The transition for the Southwest Area from irrigated agriculture to domestic use will not require appreciably more water than is currently being used.

* Kevin Kozad, Eastern Municipal Water District.

Water consumption for Land Use Alternative No. 5 is estimated to be 28,766,568 gallons per month, based on actual City water use as follows:*

Single-family	6308 gal/DU/Mon	X	3,240 DU	=	20,437,920 gal/Mon
Multiple-family	4313 gal/DU/Mon	X	810 DU	=	3,493,530 gal/Mon
Mobile Home	3435 gal/DU/Mon	X	1,350 DU	=	4,637,250 gal/Mon
Commercial	855 gal/CU/Mon	X	52 CU	=	44,460 gal/Mon
Industrial	1088 gal/IU/Mon	X	141 IU	=	153,408 gal/Mon
TOTAL					28,766,568 gal/Mon

Impacts from the project upon water quality will be due to sewage generated by project residents.** Reclaimed wastewater is used for irrigation water and percolates through the soil to the groundwater level. Total dissolved solids are not reduced as the water percolates through the soil. Nitrates may be a problem.*** Groundwater quality is monitored, and E.M.W.D. is working with the Regional Water Quality Control Board on a long-term solution to water quality problems.

Mitigation Measures

Efforts toward water conservation should be made. Possible measures include:

- Landscape watering during early morning hours or during the evening to reduce water loss from evaporation.
- Selection of drought-tolerant plants in landscaping of the site.
- Use of plumbing fixtures which will reduce water loss or consumption.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for domestic water.

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* "Fiscal Impact Analysis of Southwest Area", Ultrasystems.
** Kevin Kozad, Eastern Municipal Water District.
*** Ibid.,.

4.5.10.8 Sewage

Sewage collection and treatment will be provided to the proposed land uses, through extension of existing City and Eastern Municipal Water District (E.M.W.D.) facilities. The Hemet-San Jacinto Regional Water Reclamation Facility has a present capacity of 5 MGD, leaving an unused capacity of 1.5 MGD. The 21-inch main sewer line in Stetson Avenue has a 3 MGD capacity, leaving an unused capacity of 2.75 MGD. Land Use Alternative No. 5 is expected to generate 1.3 MGD, based on the following generation rates:*

Residential	100 gal/person/day X 10,400 people =	1,040,000 gal/day
Commercial	100 gal/1,000 sq.ft./day X 103,800 sq.ft. =	10,380 gal/day
Industrial	100 gal/1,000 sq.ft./day X 2,700,720 sq.ft. =	270,072 gal/day
TOTAL		1,320,452 gal/day

The proposed land use alternative will impact the E.M.W.D. facilities by decreasing the existing system capacities. A sewage treatment plant is planned for the Winchester area to serve the Southwest Area and the southern part of the Valley, although a date is not available for the construction of this plant.

Mitigation Measures

Mitigation measures are closely related to water conservation measures mentioned in the previous section.

Unavoidable Adverse Impacts

The proposed land use alternative will generate sewage amounts close to the existing system capacities.

4.5.10.9 Telephone

Telephone service will be available to serve the proposed land uses, through extension of existing distribution lines. The proposed land uses will not cause a significant impact on the plans of the telephone company for providing service to the area, provided that growth occurs in increments.

Mitigation Measures

No mitigation measures are proposed.

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* Ultrasystems Planning Factors.

Unavoidable Adverse Impacts

The proposed land use alternative will result in increased demand for telephone services.

4.5.10.10 Solid Waste

Refuse collection services will be provided by the City of Hemet. Refuse collection is mandatory at a frequency of two times per week.

On site generation of solid waste resulting from Land Use Alternative 5 is estimated to be 82,090 pounds per day or 41.1 tons, based on the following generation rates:*

Residential	2.5 lb/person/day X 10,400 persons =	26,000 lb/day
Commercial	2 lb/day/100 Sq.Ft. X 103,800 Sq.Ft. =	2,076 lb/day
Industrial	2 lb/day/100 Sq.Ft. X 2,700,720 Sq.Ft. =	54,014 lb/day
TOTAL		82,090 lb/day

The two landfill sites serving the Southwest Area will be impacted by the solid waste generated; however, the life of the landfills are projected beyond the year 2000.

Mitigation Measures

Separation of wastes at the source could be encouraged to facilitate resource reclamation and recycling efforts.

Unavoidable Adverse Impacts

This alternative will result in an increased burden upon landfill sites.

4.5.11 Energy

Implementation of the proposed land uses will result in consumption of non-renewable energy resources, both in the short-term and in the long-term.

Short-term impacts include the use of non-renewable energy resources during the construction phase of the proposed project. Fossil fuels will be used to operate construction machinery as well as to transport workers

* County of Riverside Waste Disposal Division.

to and from the project site. Since construction materials themselves have required the consumption of energy for their production, use of construction materials also represent consumption of energy resources.

Long-term impacts due to project implementation include consumption of gas and electricity for heating, cooking and water heating (see section regarding Public Services and Utilities). Long-term impacts also include the consumption of gasoline.

The amount of fossil fuels burned for production of electricity to serve the project can be estimated, as can the amount of natural gas burned. Residents of the proposed project are estimated to consume 7,114,164 kwh/month or 85,369,968 kwh/year. Using the formula below it has been calculated that an estimated 5,866,065 gallons of low sulfur fuel oil is necessary to generate the required electric power.

$$\frac{85{,}369{,}968 \text{ kwh}}{\text{Year}} \times \frac{10{,}387 \text{ BTU}}{\text{kwh}} \times \frac{\text{lb.}}{19{,}000 \text{ BTU}} \times \frac{\text{gal.}}{7.956 \text{ lb.}}$$

$$= 5{,}866{,}065 \text{ gallons/year}$$

Natural gas combustion has been estimated at 49.96×10^6 cubic feet per month.

Mitigation Measures

Energy Conservation. The commercial and industrial buildings in the project area should be designed for optimum energy-efficiency in accordance with Energy Conservation Standards for New Non-Residential Buildings* adopted by the State of California Energy Commission on February 5, 1976.

The new regulations prescribe energy conservation standards for non-residential buildings in California. Specifically, the regulations include energy saving designs for roof, wall, and floor installations, and also contain lighting, heating and air conditioning and hot water

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* Energy Conservation Standards for New Non-Residential Buildings. Regulations establishing energy conservation standards for new non-residential buildings, adopted by the State Energy Resources Conservation and Development Commission pursuant to Sections 19878-19878.8 of the Health and Safety Code and Section 25402(a) of the Public Resources Code are contained in California Administrative Code, Title 24, Part 6, Division T20, Chapter 2, Subchapter 4, Article 2, Sections T20-1450 to T20-1550.

supply specification standards. The regulations encourage the use of solar and wind power and other non-depleting energy sources. They offer builders the option of utilizing any building design that consumes less energy than the standard design described in the regulations. The regulations will be enforced by local building officials through the permit process.

Energy consumption in non-residential buildings is determined by interior heating and cooling requirements. The major climate influence in the Hemet area is that of the Continental Air Mass, with the ocean determining the climate no more than 15 percent of the time. Two climates occur within the Hemet Valley area. Cold air basins are formed in the valley, where the project site is located.

The overall climate in the San Jacinto area is defined as semi-arid. Yearly rainfall averages 12.81 inches. On the average nine inches, or seventy percent of the total, falls in the four months, December through March. According to State Climatologist, the average temperature in the area over a period of a year is 62.4^{o}. The average high is nearly 99° in July and the low is 34.5^{o} in January. The prevailing winds are from the southwest and, according to the Riverside County Department of Development, the mean hourly speed is nineteen miles per hour.

The State Energy Resources Conservation and Development Commission has adopted regulations establishing energy conservation standards for new residential buildings. These regulations took effect July 1, 1978 after which no new residential building permits may be issued unless the building design is in compliance with the new standards. The Energy Commission has developed a Residential Energy Conservation Manual to assist designers, builders, building officials and contractors in interpreting and implementing the new standards. Provisions for life cycle cost comparison of electric, natural gas, and solar space and water heating systems are included in the standards.

The Energy Commission has also adopted energy conservation standards covering new appliances. In accordance with these standards, no new appliance manufactured after the effective dates provided in the standards may be sold in California unless certified by the manufacturer to be in compliance with the new standards. The appliances covered under the standards include gas fired, forced air control furnaces, gas cooking appliances, gas clothes dryers, room and central air conditioners, refrigerators and freezers, and gas hot water heaters.

Unavoidable Adverse Impacts

Implementation of this land use alternative will result in consumption of nonrenewable energy resources, both in the short-term and in the long-term.

4.6 Land Use Alternative No. 6 - Impacts and Measures Which May Mitigate or Enhance Impacts

Summary of Land Use Alternative No. 6

Land Use Alternative No. 6, as shown in Figure 41, moderately controls growth in the Southwest Area through the following assumptions:

1) Requires a change in the Noise Element by allowing residential development within the 55 Ldn noise contour of Hemet-Ryan Airport.

2) Allows existing flooding problems to be mitigated with construction of a flood control channel.

3) Residential development of floodway land would be permitted.

4) Restricts development on steep hillside slopes.

5) Maximum growth of 18,135 people on 2,500 acres suitable for residential development.

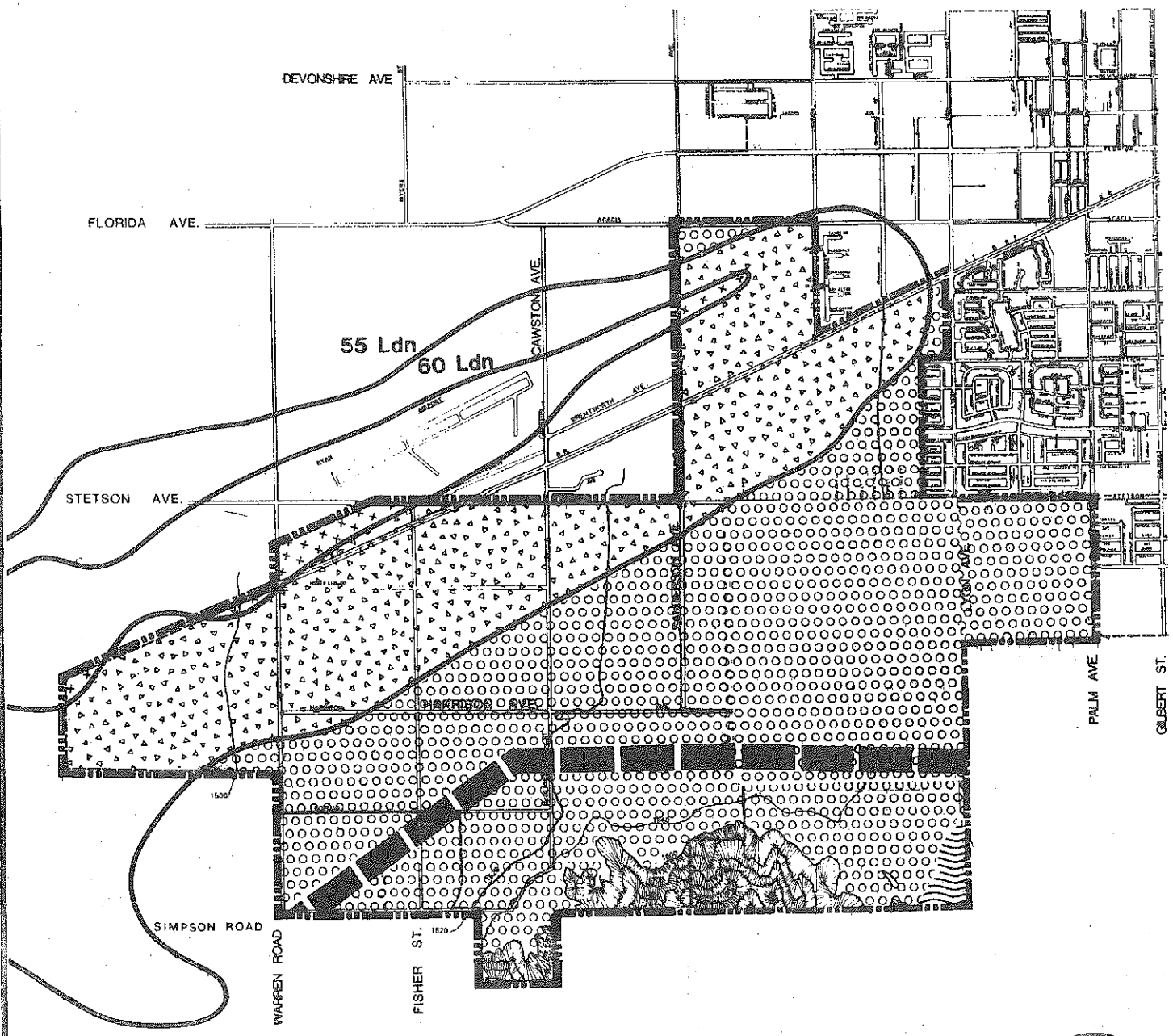
6) Very low density residential development of one dwelling unit per 2.5 acres or more will be permitted within the 55 Ldn noise contour, including approximately 817 acres. The remaining 1,683 acres of residential development will have a gross density of 5.4 dwelling units per acre. No mobile homes or multiple-family dwelling units will be permitted within the 55 Ldn noise contour.

7) Open space will remain on 18% of the area.

8) Includes 155 acres of industrial and 18 acres of commercial land uses.

9) Would not encourage redevelopment of existing City area.

10) May not provide the necessary protection of the airport from encroachment and may not protect residential development from airport noise.



Ldn NOISE CONTOUR

ULTIMATE FLOOD CONTROL CHANNEL

FLOOD PLAIN
100-YEAR INUNDATION

NON-RESIDENTIAL USES

RESIDENTIAL USES AVG. 5.4 DU/ACRE

LOW-DENSITY RESIDENTIAL USES 1DU/ 2.5 ACRES

0' 3000' 6000'

NORTH

Source:	Title:	
ULTRASYSTEMS, INC.	ALTERNATIVE 6 LAND USE MAP	41

4.6.1 Land Use

Zoning

Land Use Alternative No. 6 would require zone changes in portions of the existing Residential Agriculture zone to allow for the increased residential densities proposed. Residential land use areas would be extended by allowing very low density residential development of one dwelling unit per 2.5 acres or more within the 55 Ldn noise contour of Hemet-Ryan Airport. Development would also be restricted on steep hillside slopes. Construction of the flood control channel would permit residential development within the floodway. Zoning designations would have to reflect these land use constraints. The existing zoning allows a maximum population of 7,500 people. This alternative could generate a population growth of 14,069 people in Hemet and 4,066 people in the County, or a total of 18,135 people in the Southwest Area. This alternative will increase the industrial area to 155 acres and commercial area to 18 acres.

General Plan

Land Use Alternative No. 6 will deviate from the existing General Plan by allowing population growth in the Southwest Area. This plan moderately limits potential growth in the Southwest Area while providing 2,500 acres of land suitable for residential development. Maximum gross densities allowed within the 55 Ldn noise contour would be one dwelling unit per 2.5 acres or more. No mobile homes or multiple-family units will be allowed within the 55 Ldn noise contour. Densities outside the 55 Ldn noise contour would be 5.4 dwelling units per acre. The current General Plan requires a 2 acre minimum lot size with an allowable density of one dwelling unit per two acres.

This alternative will result in a change in the existing Noise Element of the General Plan by allowing very low density residential development within the 55 Ldn noise contour of Hemet-Ryan Airport. This change in the Noise Element will not provide the airport with the degree of protection from encroachment and incompatible uses presently provided. Within the 55 Ldn noise contour, some land previously slated for industrial and commercial uses may be utilized for residential development. This alternative deviates from

the Hemet-Ryan Land Use Plan which permits low intensity residential uses (0-.4 DU/AC) within the 55 Ldn noise contour, provided that average interior noise levels will not exceed 45 dB.

Due to the reduced land use constraints, more land will be available for residential development. Open space and agricultural land uses will be reduced to only 18 percent of the project area, including the flood control channel and steep slopes. By increasing the growth capacity of the Southwest Area, redevelopment and infill of existing developed areas in Hemet would not be encouraged until the ultimate population capacity is reached.

In accordance with the Hemet Open Space and Conservation Element, the steep hillside slopes will be preserved as a scenic resource.

Mitigation Measures

The effects of the increase in density could be mitigated to some extent by the use of multiple and cluster housing which provides increased open space.

There should be early coordination between Riverside County, LAFCO and the City of Hemet to assure that future development of unincorporated area surrounding Hemet either be annexed into the City or conform with the Hemet General Plan. This coordination between these jurisdictions will provide the City with necessary planning controls, mitigating incompatible land uses and conflicting development standards.

Unavoidable Adverse Impacts

Open space will be reduced to 18% of the Southwest Area. Approximately 1,771 acres of prime agricultural land will be lost.

4.6.2 Archaeology

Proposed construction related activities could constitute adverse impacts to the archaeological resources discovered at the RIV-1162 site. In addition, resources may be present on unsurveyed portions of the Southwest Area and will also be subject to destruction. The flood control channel in

Salt Creek would be constructed through the RIV-1162 archaeological site. Destruction, impairment or removal of artifacts and features on the survey site will result from construction of the channel unless proper mitigation measures are taken. The old cemetary on Stetson Avenue is not expected to be impacted by the project. Once approved, new construction in the Southwest Area could then add pressure to develop adjacent areas east and northwest of the site where archaeological findings have appeared and areas of Indian activity have been recorded. The entire Page Ranch property and the Sundberg property at Stetson and Cawston have been surveyed by a qualified archaeologist. These properties do not contain archaeological resources.

Mitigation Measures

The RIV-1162 archaeological site should be resurveyed for collection of any surface debris. Based on these findings, a final report should be prepared to provide mitigation measures and recommendations. In addition, future development sites must be surveyed for archaeological resources and mitigation measures recommended on the basis of future finds.

Unavoidable Adverse Impacts

Possible destruction, impairment or removal of artifacts and features.

4.6.3 Vegetation and Wildlife

Biological resources in the Southwest Area have previously been disturbed by agricultural uses. However, the project will impact the existing vegetation and wildlife on the site by construction related clearing of vegetation and alteration of topography during site preparation. The presence of structures, road and human activity will also impact wildlife after construction. The project will result in the dislocation or destruction of existing vegetation and wildlife species on the site.

Only 18% of the Southwest Area will be preserved as open space, including the flood control channel and steep hillside slopes. However, even these remaining open space areas will be disturbed by the adjacent construction and resident activities. Landscaping will result in the introduction of plant species not present now and may attract animals that are now infrequent or absent. Watering and fertilizing of lawns will allow new

species of plants to grow in areas adjacent to the lawns. The presence of structures and fences will restrict the movement of coyotes, rabbits and other mammals and amphibians.

Mitigation Measures

The proposed preservation of 18% of the area as open space will somewhat mitigate the impact upon vegetation and wildlife. The natural and undisturbed areas will provide a habitat for wildlife to relocate. Biological resources surveys, prior to development would provide assurance that no rare or endangered plant and wildlife species will be disturbed.

Unavoidable Adverse Impacts

Existing vegetation and wildlife species in the Southwest Area will be dislocated or destroyed.

4.6.4 Climate and Air Quality

Short-term Impacts

The construction phase of developments associated with the project will produce two sources of air pollution emissions. These are exhaust emissions from construction and grading equipment and dust generated as a result of earth movement and equipment traffic over dust ladden roads. The dust emissions may cause a nuisance to any persons who reside or park motor vehicles in the vicinity of the project. However, the emissions will be of short-term duration.

Long-term Impacts

Long-term impacts associated with the project consist of emissions generated by the following sources:

Stationary	Mobile
Off-site generation of electricity for project On-site use of natural gas for cooking, space hearing, and water heating.	Motor Vehicle

Stationary Sources

Stationary on-site emissions from natural gas combustion associated with the project are presented in Table 40. As shown in the Table the contribution of project on-site stationary emissions to the total emissions projected for the project area is nearly negligible.

The stationary emissions resulting from the project electrical energy demand will occur off-site at electrical power generating plants (nuclear, oil, and hydroelectric) located throughout the utilities generating network. The total emissions due to the generation of electricity for this project are given in Table 41 assuming the power is provided by an oil burning power plant.

Mobile Sources

An estimate of the total motor vehicle emissions generated by traffic associated with the proposed project is shown in Table 42. As indicated in the Table the average contribution of project motor vehicle emissions to the total projected emissions for Riverside County for the year 1995 is about 0.5 percent upon project completion.

Total Emissions

The total pollutant emissions associated with the project are presented in Table 43.

Mitigation Measures

1. Normal wetting procedures should be followed during the site grading operations to reduce dust emissions.

2. The Southern California Association of Governments (SCAG) and South Coast Air Quality Management District are currently preparing in cooperation with City and County governments an Air Quality Management Plan (AQMP) designed to achieve and maintain Federal and State air quality standards within the South Coast Air Basin. The AQMP is to be submitted for approval to the State Air Resources Board by January 1979 prior to submittal to EPA as a revision to the State's Implementation Plan. The AQMP is to identify the need for further control of stationary and mobile sources, alternate transportation strategies, and measures to reduce adverse air quality impacts associated with further growth and development. The proposed project should be reviewed for consistency with the objectives of the AQMP if finalized prior to project approval.

3. Provide for convenient bus stop locations.

TABLE 40

LAND USE ALTERNATIVE NO. 6
OF NATURAL GAS (ON-SITE)

POLLUTANT	EMISSION FACTOR* LBS/1000 FT^3	PROJECT EMISSIONS** LBS/DAY	TOTAL 1195 EMISSIONS FOR RIVERSIDE COUNTY*** TONS/DAY	PERCENT OF TOTAL COUNTY EMISSIONS
Carbon Monoxide	Negl	Negl	203	Negl
Total Hydrocarbons	Negl	Negl	40	Negl
Nitrogen Oxides	0.116	268	48	0.3
Sulfur Oxides	Negl	Negl	6	Negl
Particulates	0.018	42	29	0.1
TOTAL (average)	--	310	326	(Negl)

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.
** Assumes 69.4 million cubic feet of gas/month.
*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

Negl = Negligible

TABLE 41

LAND USE ALTERNATIVE NO. 6
EMISSIONS ASSOCIATED
WITH ELECTRICITY GENERATION (OFF-SITE)

POLLUTANT	EMISSIONS FACTOR* LBS/1000 KWH	PROJECT EMISSIONS** POUNDS/DAY
Carbon Monoxide	0.2	60
Total Hydrocarbons	0.18	54
Nitrogen Oxides	2.3	688
Sulfur Oxides	2.6	777
Particulates	0.401	120
TOTAL		1,699

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.
** Assumes 8.96 million KWH/month.

TABLE 42

ESTIMATED MOTOR VEHICLE EMISSIONS
ASSOCIATED WITH LAND USE ALTERNATIVE NO. 6

POLLUTANT	EMISSION* FACTOR (GRAMS/MILE)	ESTIMATED EMISSIONS** (LBS/DAY)	TOTAL 1995 EMISSIONS FOR RIVERSIDE COUNTY TONS/DAY***	TOTAL COUNTY EMISSIONS
Carbon Monoxides	3.8	3,330	203	0.8
Nitrogen Oxides	0.7	613	48	0.6
Hydrocarbons	0.5	438	40	0.5
Sulfur Oxides	0.1	88	6	0.7
Particulates	0.3	263	29	0.5
TOTAL (Average)	--	4,732	326	(0.7)

* 1995 Emission Factors, Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.
** Assumes 397,850 vehicle miles traveled.
*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

TABLE 43

ESTIMATED TOTAL EMISSIONS
LAND USE ALTERNATIVE NO. 6

POLLUTANT	TOTAL EMISSIONS LBS/DAY
Carbon Monoxide	3,390
Total Hydrocarbons	492
Nitrogen Oxides	1,569
Sulfur Oxides	865
Particulates	425
TOTAL	6,741

Unavoidable Adverse Impacts

There will be additional emissions emitted into the southeastern portion of the South Coast Air Basin. These emissions will result in an incremental decrease in the quality of the air.

4.6.5 Geology and Soils

Development on the flat alluvial valley area will result in only slight immediate impact as development will be phased over many years. However, construction of a fully improved flood control channel will require significant amounts of landform alteration.

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone. The Southwest Area is about 2 miles from the San Jacinto Fault Zone and is underlain by alluvium of intermediate thickness. Earthquake shaking is expected to be strong to severe as a result of movement on any one of several faults within the San Jacinto Fault Zone. Settlement of soils due to ground-shaking could pose a major hazard, especially in areas of fill. Slippage and landslide could possibly occur in the Domenigoni Mountains. The "Land Use/ Risk Matrix" in the City of Hemet Seismic Safety and Public Safety General Plan Elements (1976) indicates that light industrial, low-density residential, warehousing and storage, and agriculture and park uses are "provisionally suitable" for most of this area. The increased residential densities proposed would expose a greater population to the risk of human and structural loss.

Mitigation Measures

Engineering geologic investigations should be required for all new construction within the Southwest Area. Construction according to the Earthquake Regulations of the Uniform Building Code and recommendations of a qualified structural engineer should mitigate the risk of human and structural loss.

Unavoidable Adverse Impacts

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone. The landform will be altered by grading for structures, and flood control improvements.

4.6.6 Hydrology

Under this alternative land use plan, a fully improved, Salt Creek Channel would be constructed from Lyon Avenue to Highway I15E, designed to provide protection against 100 year frequency storms upon complete development of the Hemet area watershed. The ultimate channel right-of-way is expected to be 520 feet with a 230 foot base width. Channel excavation would be placed in spoil banks adjacent to the channel. Portions of this discussion were exerpted from the Draft EIR, Hemet Area Drainage and Salt Creek Channel Improvements.*

All lines proposed in the Hemet Area Master Drainage Plan would be constructed, as previously shown in Figure 13. Underground storm drains would be designed to carry the predicted runoff from 10 year frequency storms. The balance between 10 year and 100 year frequency storm is carried in the streets. The street flows are discharged with the flow in the underground drains into open channels which are designed to accept 100 year storm runoff. Lines "A" and "D" will be enlarged to ultimate size downstream of Cawston Avenue. The principle design capacity of Hemet Channel will be 9500 CFS at its confluence with Salt Creek Channel. Salt Creek Channel will have a design capacity of 9200 CFS to Hemet Channel and 11,700 CFS from the Hemet Channel to Highway I15E.

The improvement of the Salt Creek Channel to the ultimate capacity of 11,700 CFS for the reach from Highway I15E to the Hemet Channel confluence, will obviously provide greater flood protection than an interim channel with a capacity of 1500 CFS. The breath of flood flows during a 100 year flood would be restricted to the confines of the channel. Thus, the hazard of flooding will be diminished for land within the Salt Creek flood plain and floodway. Since the Riverside County standard protection level for developments, specified in the Subdivision Ordinance, is for protection against 100 year frequency storms, the improved channel will remove a major obstacle to development in a numer of areas in both the City and County. Therefore, the removal of the flood hazard will have a growth-inducing impact on the Southwest Area.

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* Alderman, Swift & Lewis Consulting Engineers, 1977.

Mitigation Measures

Both the City and the County have mechanisms to control and guide the development of flood plain area as proposed in the Land Use, Conservation and Open Space Elements of the County and City General Plans. The Federal Flood Insurance Program will mitigate the flood hazard.

Recreational areas and landscaping should be developed in flood channel areas to prevent adverse visual impacts. Flood control structures should be designed with equal sensitivity for aesthetics and utility.

Construction impact mitigation measures include:

1) Limit heavy construction to week days between the hours of 7:00 AM and 6:00 PM.
2) Use water and temporary paving to prevent dust.
3) Reduce air pollution by using well maintained equipment.
4) Reduce traffic problems by advance planning of construction and the use of appropriate traffic regulation and control devices and by using flagmen if necessary.
5) Conserve energy needed for construction by using proper equipment and properly maintained equipment and by avoiding unnecessary trips and shuttle runs.
6) Mitigate stored equipment and material problems by appropriate security measures.

Unavoidable Adverse Impacts

The natural Salt Creek Channel will be replaced with man-made flood control facilities; however, the natural channel has been previously altered by farming operations and flood hazard will be reduced.

4.6.7 Noise

Impacts

The noise impacts considered in this section result from the following noise sources:

- GRADING AND CONSTRUCTION EQUIPMENT.
- FARMING EQUIPMENT.
- FUTURE AIRCRAFT OPERATIONS AT HEMET-RYAN AIRPORT.
- TRAIN TRAFFIC.
- FUTURE HIGHWAY TRAFFIC.

Development within the Southwest Area is expected to take place through the year 2000. Due to the phasing of residential development, the following interim noise impacts could be expected:

1) Short-term impacts due to grading and construction activities could occur within noise sensitive uses such as residences and schools which would be in close proximity to construction activities. Noise impacts would be nuisance oriented; i.e., annoyance, speech communication interference, and sleep interference (for individuals who normally sleep during daytime hours). Because construction activity is generally limited to daytime hours, no adverse noise impact would be expected during the nighttime period.

2) Residential uses (receptors) located within the Southwest Area immediately adjacent to agricultural uses could experience adverse noise impacts due to late evening and early morning alfalfa harvesting activities. The primary noise impact would be sleep interference.

In an effort to minimize potential adverse noise impacts associated with aircraft operations at Hemet-Ryan Airport, the City of Hemet has established a set of land use compatability criteria. Under Land Use Alternative 6 , residential development will not be permitted within an environment which has an annual average L_{dn}* of 60 dBA or greater (see Figure 41). In comparison, California State Law specifies a noise standard of CNEL (L_{dn}) $\geq$ 65 dBA.** Therefore, the criteria established by the City of Hemet for Land Use Alternative 6 is almost 5 dBA lower than that required by California State Law. The primary reason is that the City of Hemet has established this standard in order to provide quietness as an environmental amenity of future residents.

The contour values illustrated in Figure 14 represent the "annual average" condition predicted for 1986, however, a qualifying statement is in order. Based on the data contained in the background report for Hemet-Ryan Airport noise contours (see Appendix A), the contour map does not necessarily represent the <u>average day</u> condition. Generally, fire bombers only use the

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* Refer to Appendix A for an explanation of community noise exposure levels.
** Airport Noise Regulation-California Administrative Code, Title 21, Chapter 2.5, Section 5000-5080.4.

airport during emergencies. Calculated as part of the annual average condition, fire bomber related aircraft (the C-119J specifically) tend to skew the results (they are significantly noisier than the general aviation aircraft), and therefore, the following two conditions will exist:

1) On days when fire bomber activity is not taking place, the noise environment would be approximately 5 dBA lower than shown for the average annual condition. This clearly represents an acceptable noise environment for future residents of the Southwest Area.

2) On days when fire bomber activity is taking place, the L_{dn} will be considerably higher than the average annual condition. It is possible that residents located nearest the 55 Ldn contour line may be annoyed by fire bomber aircraft related noise events. The City of Hemet could receive noise complaints.*

Due to the limited amount of train traffic within the City of Hemet, no significant adverse noise impacts are expected within the Southwest Area. However, if industrial growth does occur in the future, and as a result creates a demand for additional rail service, future land use conflicts could result. Therefore, proposed development in the vicinity of the railroad right-of-way should be carefully considered by the City before any "noise sensitive" development is approved.

Highway traffic noise is expected to be the primary noise source within the Southwest Area. Noise levels are expected to increase significantly as more and more people move into the area. In general, highway traffic noise levels will be highest in areas located adjacent to the primary roadways in the study area. Ultrasystems has estimated noise levels within the vicinity of roadway segments as applicable to residential development for Land Use Alternative 6.** Applicable roadway segments are identified in Figure 42 and the results of calculated L_{dn} exposure levels are contained in Table 44.

The criteria used to assess and prevent adverse highway traffic noise impacts are presented below:

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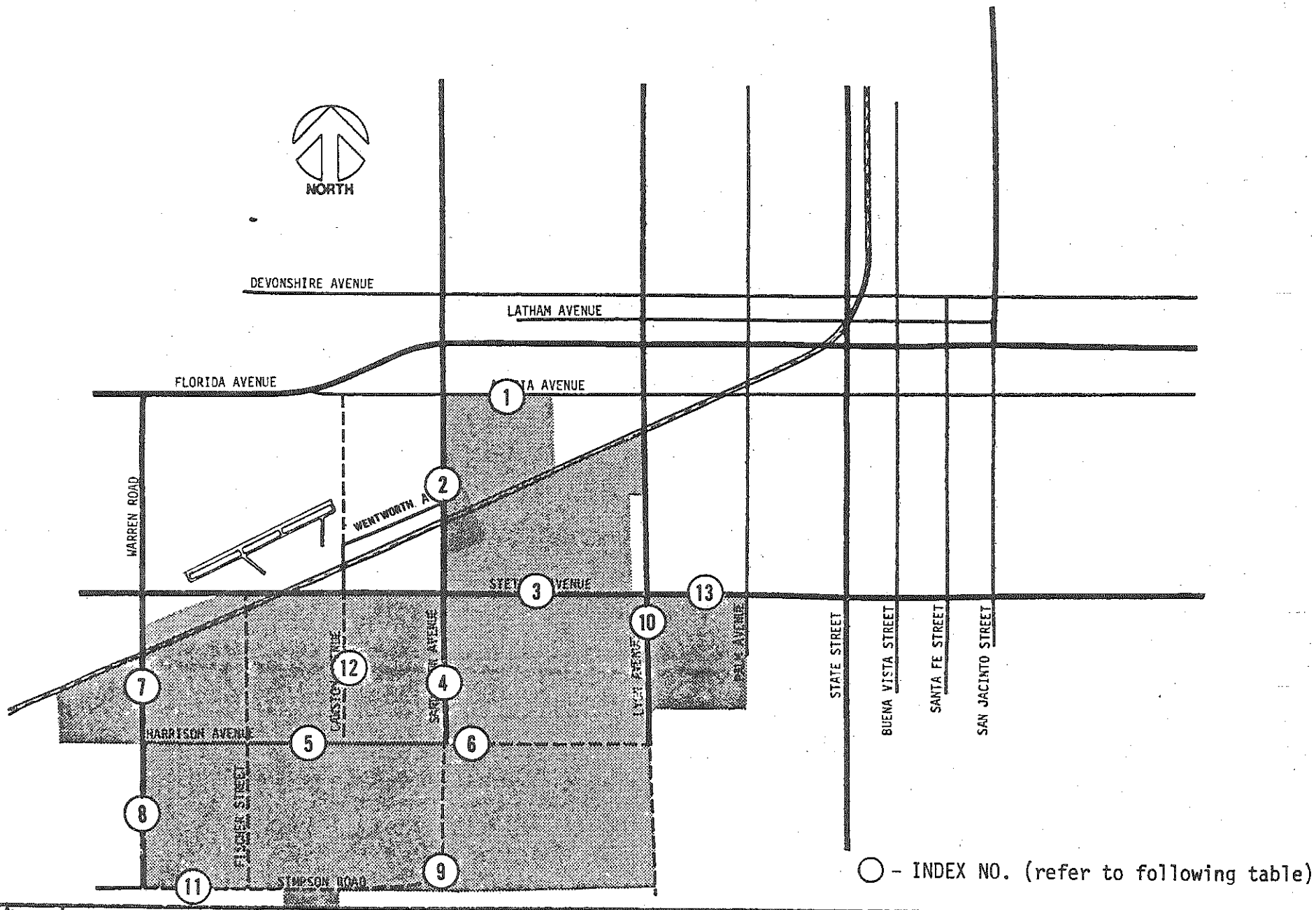
* Refer to Appendix A, Response to Various Community Noise Levels.
** See Appendix A for Highway Noise Model Assumptions.



Source:

ULTRASYSTEMS, INC.

Title:

LAND USE ALTERNATIVE 6
NOISE IMPACTED ROADWAY SEGMENTS

42

TABLE 44

CALCULATED L_{dn} EXPOSURE LEVELS
(LAND USE ALTERNATIVE 6)

INDEX NO.	ROADWAY SEGMENT	DISTANCE TO NOISE CONTOURS EXPRESSED IN FEET FROM CENTERLINE OF ROADWAY		
		55 dBA	60 dBA	65 dBA
1	Acacia-East of Sanderson	83	38	18
2	Sanderson-Acacia/Stetson	278	129	60
3	Stetson-East of Sanderson	390	181	84
4	Sanderson-Stetson/Harrison	344	160	74
5	Harrison-Warren/Sanderson	186	86	40
6	Harrison-East of Sanderson	126	58	27
7	Warren-North of Harrison	253	117	54
8	Warren-South of Harrison	244	113	53
9	Simpson-South of Harrison	323	150	70
10	Lyon-South of Harrison	278	129	60
11	Simpson-Warren/Fisher	129	60	28
12	Cawston-Stetson/Harrison	135	63	29
13	Stetson-Lyon/Palm	343	159	74

Exterior Environments - Not to exceed L_{dn} of 55 dBA
Interior Environments - Not to exceed L_{dn} of 45 dBA*

Based on the preceeding criteria and the data presented in Table 44, noise mitigations would be necessary in proposed residential areas where the estimated highway noise environment exceeds 55 dBA.

Based on Land Use Alternative 6, development within the planning area is expected to generate an ultimate 84,000 vehicle trip ends per day. The majority of these trips will be oriented towards areas in the City. The result of additional vehicular movement will be a significant unavoidable increase in traffic noise emission levels within the City of Hemet.

Mitigation Measures

The following mitigation measures are recommended:

- Grading and construction activities should not be permitted between the hours of 7 PM and 7 AM, and on Saturday, Sunday, and legal holidays.
- Agricultural property owners within or adjacent to the Southwest Area should limit agricultural operations as much as possible during late evening and early morning hours. Farming equipment which must be operated during the noise sensitive hours should be equipped with adequate and well maintained exhaust mufflers.
- If train operations increase enough to create a significant adverse noise impact, noise mitigation measures should be considered. Land uses such as residences and school would not be suitable for development at locations immediately adjacent to the railroad right-of-way. Residences which would be located in the general vicinity of the railroad should be screened from railroad noise sources by solid sound barriers such as earthen berms or earthen berm/walls. Project design should stress the orientation of structures away from the railroad including windows and other openings.

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* California Administrative Code Title 25. California Noise Insulation Standards. (Assumes a windows-closed condition).
NOTE: An acoustical analysis is required if residential structures are to be located within a noise environment (exterior) of 60 dBA or greater showing that the structure has been designed to meet the 45 dBA interior requirement.

- A detailed acoustical analysis will be required for residential development located within the 60 dBA noise contour from highway noise sources. The analysis is required in order to prove that the indoor environment will be reduced to a level of 45 dBA or less*.

- Highway noise mitigation measures such as acoustical site planning and/or the design of earthen berms or berm/wall combinations will be necessary in order to reduce noise to acceptable levels (exterior-55 dBA or less) for residential development within the Southwest Area.

  NOTE: Residential structures can be utilized to attenuate noise through proper acoustical planning. Outdoor areas can be effectively screened from unwanted noise by incorporating the residential structure as a sound barrier. However, if this concept is used to provide an acceptable interior environment, all windows, vents and other normal openings should be oriented away from the highway noise sources.

- Heavy trucks (3 axles or more) are a major source of highway noise. Therefore, limit heavy truck traffic to the following roadway segments (within or adjacent to the Southwest Area):
  - Warren
  - Stetson-Warren/Airport Drive

- The mitigation of highway noise outside the Southwest Area may only be practical or economically viable for new rather than existing noise sensitive land uses.

Unavoidable Adverse Impacts

Traffic generated by the Southwest Area will create a significant increase in traffic noise levels locally and in the City of Hemet.

4.6.8 Traffic and Circulation

Impact

The traffic impacts that would result from the development of the Southwest Hemet study area would be incremental in nature and would relate to the degree of completion of the areas various development components. However, since a developmental time frame has not been established, this analysis considers the impacts that could be anticipated at the full build out according to the specified alternative. Table45 presents a traffic generation forecast for the Southwest Hemet study area once fully developed according to Alternative 6. Traffic generation estimates are included for the AM peak hour and PM peak hour as well as 24 Hour volumes for an average weekday. Generation factors included in Table45 have been taken from studies compiled by Caltrans (California Department of Transportation) and from studies compiled in the Institute of Transportation Engineers Information Report on Trip Generation.

Traffic Generation is expressed in vehicle trip ends where a trip end is a one-way vehicular movement either entering or departing a generating land use. Summation of the vehicle trip ends generated by the various land use components included in the sixth development alternative for the southwest area, would produce just over an estimated 84,000 vehicle trip ends per day evenly distributed between inbound and outbound An estimated 9920 vehicle trip ends would be expected to occur during the AM peak hour (4125 inbound and 5795 outbound) while just over 11,900 vehicle trip ends (6895 inbound and 5030 outbound) would be generated during the PM peak hour.

It should be noted that the traffic generation potential listed in trip ends in Table45 is somewhat higher than the number of vehicles that would physically be added to the adjacent street system. Each vehicle trip has two trip ends, one at the origin of the trip and one at the destination. If all vehicle trips generated within the Southwest Hemet study area had origins or destinations outside the combined study area, the total number of vehicle trip ends generated would equal the total number of vehicle trips produced within the study area. However, a certain percentage of residential units will interact trip wise with each other as well as other uses to be contained within the study area, i.e., any commercial centers the Seven Hills Golf Course, the Hemet Ryan Airport, and any future industrial development.

TABLE 45

TRAFFIC GENERATION FORECAST - Alternative 6

Development	AM Peak Hour			PM Peak Hour			24 Hour
	Inbound	Outbound	Total	Inbound	Outbound	Total	2-Way
Hemet Residential(7950D.U.) Generation Factor * (T.E./D.U.)**	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	2385	4770	7155	5565	3180	8745	79,500
Seven Hills Area Residential (1458D.U.) Generation Factor (T.E./D.U.)	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	440	875	1315	1020	580	1600	14,500
Industrial(155 acre) Generation Factor (T.E./D.U.)	8.4	1.0	9.4	2.0	8.2	10.2	68.1
Generated Vehicle Trips	1300	150	1450	310	1270	1580	10,550
Total Traffic Generated	4125	5795	9920	6895	5630	11,925	84,050

*Section 210, Trip Generation, An Informational Report of the Institute of Transportation Engineers, 1976.

**T.E./D.U. = Trip Ends/Dwelling Unit. A trip end is a one-way vehicular movement either entering or leaving the generating land use.

Therefore, this one-to-one relationship between vehicle trip ends and vehicle trips does not apply. The number of vehicle trips in terms of vehicles physically added to the adjacent street system is somewhat less than the total number of trip ends produced by the various components of the total study area. For the purposes of this analysis therefore, it has been assumed that 25 percent of the estimated vehicle trip ends to be generated by development within the study area would be completely internal to the area.

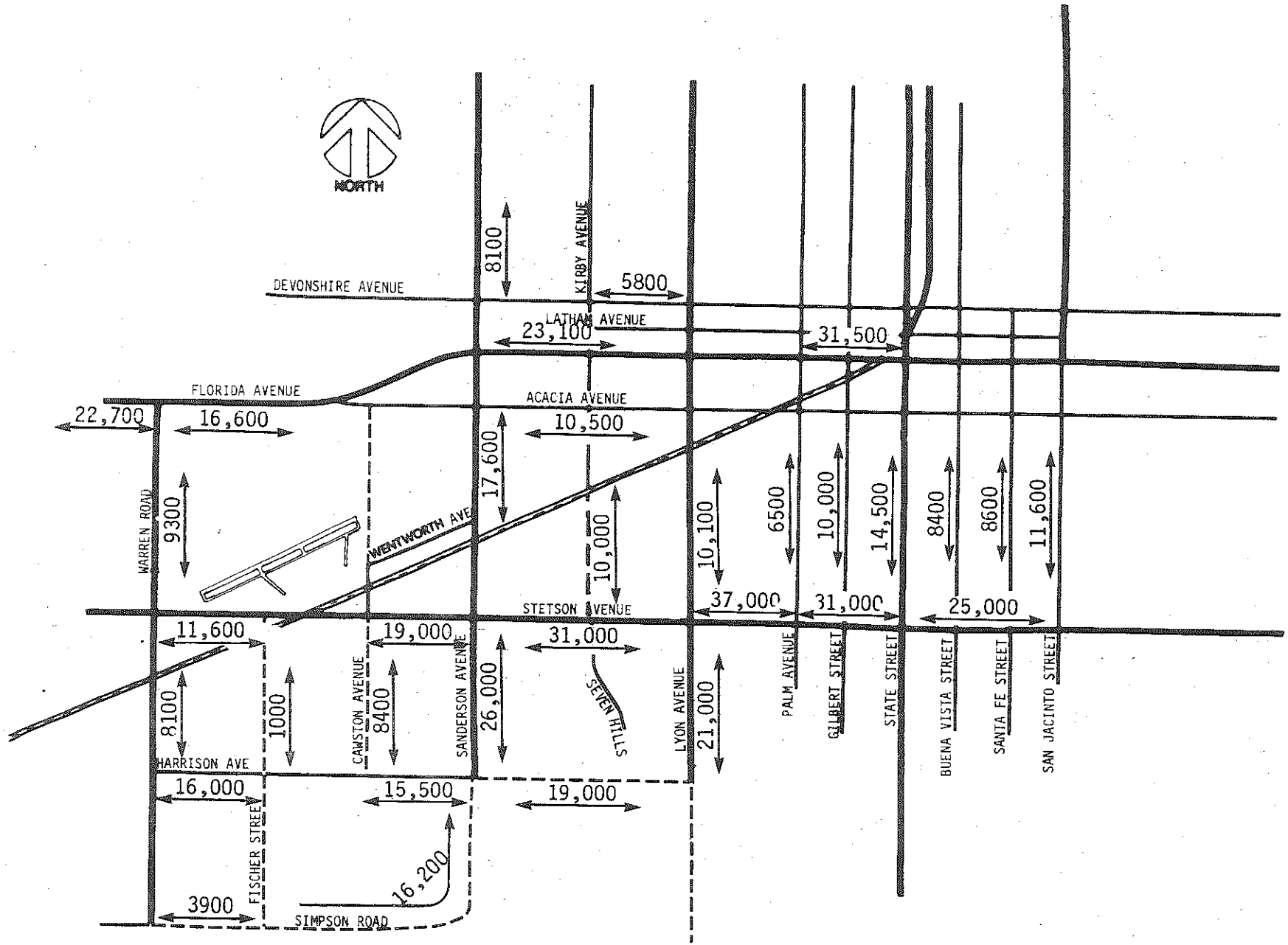
In addition, a daily traffic generation rate of 10 trip ends per dwelling unit has been used for the projections made in this report. This generation rate is generally associated with single family detached dwelling units. Other residential uses such as multi-family townhouses or condominium units, apartments and mobile home parks typically have lower traffic generation rates. For this reason the the traffic generation forecast listed in Table is considered conservatively high.

The traffic generation potential associated with the various land uses within the southwest study area has been distributed and assigned on a component by component basis for each land use designation contained within the specified alternative. The current area roadway system and existing travel patterns, the current and projected population and employment distribution, a review of potential development surrounding the study area, and projected roadway expansion as reflected in the current Master Plan of Highways of both the City of Hemet and County of Riverside were factors considered in projecting traffic distribution. As previously mentioned, a percentage of the traffic generated within the study area is expected to be internal to the area itself. The major attraction of the trips generated that would be external to the study area, would still be expected to be to the north and east of the study area. On this basis, roughly 60 percent of the traffic generated by development within the Southwest Hemet area is expected to be oriented to the north and east of the study area. Fifteen percent is projected to be oriented to the west with the remaining 25 percent completely internal to the study area.

The assignment of the Southwest Hemet study area traffic to various links of the master planned highway system was not capacity restrained in that future total volumes at anyone location were not limited to the capacity associated with the functional classification of that link as shown on the City and County master plans. Figure 43 carries out the distribution and assignment procedure and illustrates the future total traffic volumes on those roadways shown based on anticipated travel desires. The traffic volumes shown in Figure 43 represent a summation of existing roadway volumes and those volumes projected to be added as a result of development in the Southwest Hemet study area. They do not reflect any additional growth in traffic volumes that might occur as a result of development in other areas of Hemet.

As illustrated in Figure 43 the primary traffic impact as a result of development in the Southwest Hemet Study area, would be experienced along Stetson Avenue which if the capacity were available would realize a traffic volume increase of roughly 26,000 vehicles per day. This would result in daily traffic volumes on Stetson Avenue of between 19,000 and 37,000 vehicles per day. Sanderson Avenue would also receive a significant increase with daily traffic volumes totalling 17,600 vehicles per day north of Stetson Avenue and 26,000 vehicles per day south of Stetson Avenue. Simpson Road would be expected to carry roughly 16,200 vehicles per day, while Lyon Avenue would be projected to carry just over 10,000 vehicles per day north of Stetson Avenue and 21,000 vehicles per day south of Stetson Avenue.

Kirby Avenue currently ends just south of Acacia Avenue however it will be necessary to complete Kirby Avenue southerly to Stetson Avenue as the southwest area develops. Kirby Avenue, when completed to Stetson Avenue, would provide relief to traffic volumes projected for Sanderson Avenue as well as provide access to that portion of the Southwest Study area it traverses and to the Seven Hills development. As previously mentioned, Lyon Avenue and Palm Avenue run through residential areas (in particular those areas immediately north of Stetson Avenue developed into mobile home lots) that may preclude future roadway widening thereby limiting their respective traffic carrying capabilities. This fact further illustrates the importance of Kirby Avenue to the areas circulation system as future development occurs.



Source:

Linscott, Law & Greenspan, Inc.

Title:

Daily Traffic Distribution Alternative 6

43

Similarly, Gilbert Street and State Street would become secondary north-south routes for traffic generated and attracted to the Southwest Hemet study area. These two roadways are projected to carry approximately 10,000 and 14,500 vehicles per day, respectively. Other impacted roadways and their respective projected traffic volumes are shown on the distribution figure.

Twenty-four hour roadway capacities were estimated based on the master planned cross-sections shown in Figure 18 and on the following assumptions: an ultimate population of between 25,000 and 40,000, a peak hour factor of .85, 5 percent trucks, 10 percent right turns, and a G/C ratio of .50. The resulting capacities that were determined by these assumptions were as follows:

Functional Classification	Capacity
Collector	11,000
Secondary	17,000
Major	20,000
Arterial	21,500

It should be noted that the actual capacities could vary from those calculated above as the area develops and actual traffic characteristics can be determined. Roadway capacity when evaluated on a corridor basis, for instance, often results in a range in capacity values (for example, traffic volumes of between 20,000 and 30,000 vehicles per day are commonly associated with arterial highways). This range depends upon such things as access control, intersection spacing, and signal progression. However, the capacities calculated above are believed to be reasonable and appropriate values for planning purposes.

The calculated roadway capacities above and the projected future roadway volumes shown on Figure 43 were used to determine a recommended circulation system for the various alternatives proposed. Capacity deficiencies and surpluses were balanced among parallel routes to develop a recommended arterial highway system. This procedure assumed that the local circulation system would be designed in such a manner so as to more evenly distribute study area traffic to the arterial roadway system for a particular travel orientation. The recommended circulation networks also assumes intersection widening techniques would be implemented to the next highest functional

classification where that higher classification would not be justified over an entire roadway link. It has also been assumed that the proposed circulation system would be developed so that the various roadway segments would be constructed out of the existing floodway, or in such a manner that access would be maintained should a flood occur.

On this basis then, the following master planned highway cross-sections are recommended for roadways in the Southwest Hemet study area should it develop according to Alternative 6.

Roadway	Classification
Sanderson Avenue	Major/Arterial
Stetson Avenue	Arterial
Acacia Avenue	Collector/Secondary
Harrison Avenue	Secondary/Major
Simpson Road	Secondary/Arterial
Warren Road	Collector/Secondary
Cawston Avenue	Collector
Fischer Street	Collector
Lyon Avenue	Secondary/Major
Kirby Avenue	Secondary

To individually calculate the estimated capacity utilization at each intersection within the study area is beyond the scope of planning at the general plan level. Thus, in this report, hypothetical capacities have been utilized and a more refined analysis should be made as the area develops.

It becomes apparent, when balancing capacity deficiencies and surpluses among parallel routes, that another east-west route, paralleling Stetson Avenue to the south, would be essential to the areas development. Harrison Avenue is currently master planned as a secondary highway between Warren Road and Lyon Avenue on the Hemet-San Jacinto General Plan and between Warren Road and State Street on the Circulation Element of the Riverside County General Plan. This master planned secondary highway would provide the additional east-west route needed to accommodate future traffic volumes projected to occur as a result of development planned in the area. It should be noted however,

that a golf course has been constructed and is in operation in that area that would include the easterly extension of Harrison Avenue as currently shown on the respective Highway Master Plans. It may be necessary, therefore, to amend the existing Highway Master Plans (Hemet and Riverside County) to reflect a more southerly alignment of Harrison Avenue should this new alignment prove more advantages to the City of Hemet and development in the Southwest area.

Signalization of the major intersections within and immediately adjacent to the Southwest Hemet Study area would undoubtedly be warranted upon completion of the entire development. These intersections may include Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue, Sanderson Avenue and Acacia Avenue, Stetson Avenue and Warren Road, Sanderson Avenue and Harrison Avenue, Kirby Avenue and Acacia Avenue, and Kirby Avenue and Stetson Avenue. However, since traffic signals should be installed only after positive evidence of there need has been deomonstrated, it is recommended that specific intersections be evaluated as necessary prior to ultimate occupancy of the areas planned development.

The development of the Southwest Study area according to this alternative would generally impact all transportation facilities in the Hemet area. It is difficult however, to quantify traffic impacts at locations more distant from the study area. This is due to the fact that traffic volumes generated by land development within the area tend to dissipate or "decay" as the distance from the generating source and a particular location under consideration increases. It can reasonably be expected however, that the primary north-south routes between Stetson Avenue and Florida Avenue would receive a significant amount of study area generated traffic. Also, major trip attractors are still expected to be located along Florida AVenue for some time in the near future. Therefore, traffic generated by development within the Southwest Hemet study area, could be expected to further impact traffic conditions along Florida Avenue.

As previously mentioned the only public transportation service to the area at the present time is provided by a dial-a-ride system. Due to the lack of public transportation to rural areas such as Hemet those residents who do not own there own automobiles are dependent on a relative, friend or neighbor to provide for any transportation needs. When these sources or public transportation systems are unavailable they remain isolated. The Riverside Transit Agency is attempting to alleviate some of the problems which confront many transportation disadvantaged individuals in the county. The development of the southwest area of Hemet may enable public transportation into this area to become more economically feasible thus enhancing the efforts to improve public transportation facilities.

When specific project site plans for the various components of the southwest area are developed, provisions should be made for adequate off-street parking. General parking demands for several common types of land uses and off-street parking requirements are listed in the Riverside County zoning ordinance and presented in Table 46.

The development of the Southwest Hemet study area according to development Alternative 6 would result in an estimated daily VMT (vehicle miles travelled) increase of roughly 420,000 miles per day.

Mitigation Measures

The following measures are suggested as a means of mitigating potential traffic impacts generated by the development of the Southwest Hemet Study area as proposed herein. The measures listed below would have the affect of improving anticipated traffic conditions with regard to both project related traffic and total area traffic which would result from other future growth in the area.

- The construction and improvement of the following roadways to their recommended master plan cross-section will be required to accommodate the anticipated traffic volumes that are projected from development within the Southwest Hemet study area:

TABLE 46

PARKING REQUIREMENTS

TYPE OF LAND USE	SPACES REQUIRED[1]	ORDINANCE 348[2]
Retail Store*	1 per 350 sq.ft. GFA**	1 per 250 sq.ft. GFA
Office Building	1 per 300 sq.ft. GFA	1 per 250 sq.ft. GFA
Restaurant (sit down type)	1 per 4.5 seats	1 per 45 sq.ft. of serving area
Single-Family Dwelling	2 per unit	1 per D.U.
Multi-Family Dwelling	1.75 per unit	1 per D.U.
Shopping Center 30,000-75,000 sq.ft. GFA	7 per 1,000 sq.ft. GFA	1 per 150 sq.ft. GFA

* Not in a shopping center.

** GFA - Gross Floor Area

SOURCE: [1] Traffic Engineering for Small Cities and Counties, Automobile Club of Southern California, p. 11.

[2] Riverside County Zoning Ordinance No. 348, Section 18.12.

Roadway	Master Plan Cross-Section
Sanderson Avenue	Major/Arterial
Stetson Avenue	Arterial
Acacia Avenue	Collector/Secondary
Harrison Avenue	Secondary/Major
Simpson Road	Secondary/Arterial
Warren Road	Collector/Secondary
Cawston Avenue	Collector
Fischer Street	Collector
Lyon Avenue	Secondary/Major
Kirby Avenue	Secondary

- Construction of all planned local collector streets to the standards set forth in the Riverside County General Plan and the Hemet-San Jacinto General Plan.

- The installation of traffic signals at the following intersections will undoubtedly be warrented. Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue, Sanderson Avenue and Acacia Avenue, Stetson Avenue and Warren Road, Sanderson Avenue and Harrison Avenue, Kirby Avenue and Acacia Avenue, and Kirby Avenue and Stetson Avenue. However, as previously discussed, the installation of traffic signals should be made only after positive identification of their need has been established and it is recommended that these intersections be evaluated as necessary prior to ultimate occupancy of the areas planned development.

- Promote ride-pooling (car-pools/van-pools) with regard to persons employed in any planned commercial and industrial activities. This would have the potential of reducing daily commuter traffic and on-site parking requirements.

- Demand-responsive (dail-a-ride) public transit should be encouraged. Where practical small vans or busses should be used. Provision of a public transit system will reduce potential auto travel, and provide mobility to those residents who are either too young to drive, do not drive, no longer drive, or are not capable of bicycling.

- The feasibility of expanding the Riverside Transit Agency's transportation service in the Hemet area should be considered.
- Control of access to the arterial and major street system as outlined in the Riverside County Subdivision Ordinance No. 460 should be encouraged. Control of access reduces the number of potential traffic conflicts, smoothes out traffic flow and increases traffic capacity.
- Provide sufficient off-street parking to meet anticipated demand for each planned use, taking into account the County zoning ordinances and the potential for overlapping or joint use of parking areas serving such complimentary land uses as may be developed.
- Provide separate bicycle and pedestrian pathways throughout the project as a means of promoting alternative forms of movement. For safety, convenience and efficiency, these systems should be separated from the vehicular traffic system and from one-another.
- Establish land use patterns, intensities and relationships which would reduce vehicle trip making characteristics and promote the use of alternative modes of travel such as bicycles, walking and transit. For example, increased residential densities adjacent to the planned commercial activities and open spaces designed with integral bike paths and pedestrian ways.

Unavoidable Adverse Impacts

Land Use Alternative 6 could produce an estimated 84,000 vehicle trip ends per day evenly distributed between inbound and outbound.

4.6.9 Open Space and Conservation

Land Use Alternative No. 6 would reduce the amount of open space in the Southwest Area by over 90 percent. Over 2,673 acres of open space will be reclaimed for residential, commercial and industrial land uses. The remaining 18 percent, including the flood control channel and steep hillside slopes, will remain in the current agricultural and open space use. Development would be restricted on steep hillside slopes over 25%, consistent with the Hemet Open Space and Conservation Element.

The Salt Creek floodway will remain as open space; however, the channel will be altered by construction of a flood control channel. Portions of the flood plain may be lost as open space to residential development. The proposed improvements to Salt Creek will open up agricultural land to urban development possibilities.

The Southwest corner of the Southwest Area, which is unincorporated County land, is the only part of the project area with an agricultural preserve status. Portions of this agricultural preserve may be developed for residential use upon completion of the interim flood control channel. In addition, a major portion of the site includes Class I and II capability soils, considered prime agricultural land. This land will be lost as residential development of the area occurs. Agriculture has been of great value to the community, both in terms of economic gains and as a means of preserving open space. The loss of agricultural land is irreversible. The proposed residential development in the Southwest Area may encourage property values to rise on adjacent agricultural property, particularly County land in Diamond Valley to the east and land west of Hemet.

The Open Space and Conservation Element recommends a community park of between 30 and 40 acres to serve Hemet and the developments serving the City. The Southwest Area has the potential for development of park facilities concurrent with residential development. Using the standard of 2.5 to 3 acres of open space per 1,000 population, this land use alternative could create a need for 45 to 54 acres of neighborhood parks.

Mitigation Measures

Open space should be valued as an essential complement to urban living and considered within all future development proposals. Development subdivision practices which foster open space and conservation concepts (such as clustering, zero lot lines and coverage incentives) should be encouraged.

Policies should be formulated to encourage participation in the Williamson Act Preservation Program, granting tax relief to owners of agricultural property who agrees not to develop their land for a minimum of 10 years. Additional incentives should be provided for agricultural land owners holding less than 100 acres who are not eligible for preservation status and the economic security it provides.

Unavoidable Adverse Impacts

Land Use Alternative No. 6 would reduce the amount of open space in the Southwest Area by approximately 82 percent.

4.6.10 Public Services and Utilities

4.6.10.1 Fire Protection

Development resulting from Land Use Alternative No. 6 will impact the City of Hemet Fire Department by requiring additional manpower and equipment. The increased demand on the Department will make it necessary to provide additional stations in the southwest and northeast areas of the City. One station is proposed to be located near the airport industrial area, probably on Stetson Avenue. Another station is proposed to be constructed in the vicinity of Menlo and Sanderson Avenues.* Based on a rate of one firefighter per 1,000 population, Land Use Alternative No. 6 could necessitate the addition of 18 firefighters in the Southwest Area.

Development in the Southwest Area will increase response times and number of calls. New construction that occurs adjacent to existing development in the City is more easily serviced than more remote areas. Developments that encroach upon the flight paths and those surrounding the airport may be subject to aircraft crashes.

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* Richard Feuerstein, Assistant Fire Chief, City of Hemet Fire Department.

4.6.10.5 Electricity

Electrical service will be provided to the development proposed by Land Use Alternative No. 6 through extension of the electrical distribution facilities located along the south side of Stetson Avenue. This Land Use Alternative is expected to generate a peak demand of 90,127 kilowatts, based on the following demand rates:*

Single-family	10 KW/DU X 6,232 DU =	62,320 KW
Multiple-family	5 KW/DU X 1,194 DU =	5,970 KW
Mobile Home	5 KW/DU X 1,989 DU =	9,945 KW
Commercial	7 Watts/Sq.Ft. X 155,700 Sq.Ft. =	1,090 KW
Industrial	4 Watts/Sq.Ft. X 2,700,720 Sq.Ft. =	10,802 KW
TOTAL		90,127 KW

Electrical consumption represents a use of a non-renewable natural resource, e.g., low sulfur fuel oil. The use may be considered an irreversible impact from the proposed development. The extension of additional electric service to the Southwest Area may be considered growth-inducing.

The major fuel used in Southern California Edison Company's generating facilities is low sulfur fuel oil. The inventory of low sulfur fule oil, combined with contractual agreements for delivery and electric customers' conservation effects, is expected to allow Southern California Edison Company to meet peak demand through 1977. Ability of Southern California Edison Company to meet peak demand periods after 1980 is dependent upon plans to proceed with construction of new generating facilities, since total system demand is expected to increase annually.**

Mitigation Measures

Energy conservation measures should be required to minimize the loss of low sulfur fuel oil, a non-renewable natural resource. Southern California Edison Company should be consulted to incorporate energy conservation measures into future development proposals.

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* Ultrasystems Planning Factors.

** H. E. Ashford, District Manager, Southern California Edison Company.

Generally, energy conservation measures include application of solar energy for water heating, use of energy-efficient appliances, building insulation, and energy conserving design of common facilities. Refer to Section 4.6.11 regarding energy mitigation measures.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for electricity, electrical distribution lines and services.

4.6.10.6 Gas

The Southern California Gas Company will provide service to the Southwest Area through extension of the gas supply line located in Florida Avenue. The existing supply line system has approximately 20% excess capacity over present requirements, a capacity for 7,000 people.* Land Use Alternative No. 6 could generate 18,135 people, thereby exceeding the current capacity of the service system. This land use alternative is expected to consume 82.7×10^6 cubic feet of gas per month, based on the following consumption rates:

Single-family	9,125 cu.ft/DU/Mon x 6,232 DU =	56.9×10^6 cu.ft./Mon
Multiple-family	5,330 cu.ft/DU/Mon x 1,194 DU =	6.4×10^6 cu.ft./Mon
Mobile Home	5,000 cu.ft/DU/Mon x 1,989 DU =	10.0×10^6 cu.ft./Mon
Commercial	3.5 cu.ft/Sq.Ft./Mon x 155,700 Sq.Ft. =	$.54 \times 10^6$ cu.ft./Mon
Industrial	3.3 cu.ft/Sq.Ft./Mon x 2,700,720 Sq.Ft. =	8.9×10^6 cu.ft./Mon
TOTAL		82.7×10^6 cu.ft./Mon

The local distribution systems will require expanding. The timing and location of future reinforcements will depend on the actual growth rate and pattern. As a public utility, the Southern California Gas Company is regulated by the California Public Utilities Commission. They are also affected by actions of federal regulatory agencies. Should these agencies make any policy or rule changes that affect gas supply or conditions under which service is available, gas service would be provided to the area in accordance with the revised rules.

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* R. C. Wright, Distribution Planning Supervisor, Southern California Gas Company.

** City of Los Angeles, EIR Manual for Private Projects, 1975. Revised 1976.

Mitigation Measures

Energy conservation measures should be required to minimize the loss of a valuable, non-renewable natural resource. Consultation should be made with the Southern California Gas Company to implement conservation measures. Possible energy conservation measures include application of solar energy for water heating, use of energy efficient appliances, building insulation and energy conserving design. Refer to Section 4.6.11 regarding energy mitigation measures.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for natural gas and distribution lines.

4.6.10.7 Water

The Eastern Municipal Water District (E.M.W.D.) will provide domestic water to the project through extension of existing service lines in the Southwest Area. The specific capacity of the system could not be quantified without a detailed study, but E.M.W.D. indicated that the distribution system was probably operating near capacity. At present, 75 percent of the water supplied by E.M.W.D. is sold for agricultural use. Domestic use has the primary claim to the imported Colorado River water supply of E.M.W.D. and the Metropolitan Water District of Southern California. In the event of a serious water problem, the Metropolitan Water District of Southern California has a formula for the allocation of the water it imports.*

The transition of the Southwest Area from irrigated agriculture to domestic use will not require appreciably more water than is currently being used.

Water consumption for Land Use Alternative No. 6 is estimated to be 51,513,491 gallons per month, based on actual City water use as follows.**

Single-family	6308 gal/DU/Mon x	6,232 DU =	39,311,456 gal/Mon
Multiple-family	4313 gal/DU/Mon x	1,194 DU =	5,149,722 gal/Mon
Mobile Home	3435 gal/DU/Mon x	1,989 DU =	6,832,215 gal/Mon
Commercial	855 gal/CU/Mon x	78 CU =	66,690 gal/Mon
Industrial	1088 gal/IU/Mon x	141 IU =	153,408 gal/Mon
TOTAL			51,513,491 gal/Mon

* James H. Bunts, Jr., Eastern Municipal Water District.
** Fiscal Impact Analysis of Southwest Area, Ultrasystems.

Impacts from the project upon water quality will be due to sewage generated by project residents.* Reclaimed wastewater is used for irrigation water and percolates through the soil to the groundwater level. Total dissolved solids are not reduced as the water percolates through the soil. Nitrates may be a problem.** Groundwater quality is monitored, and E.M.W.D. is working with the Regional Water Quality Control Board on a long-term solution to water quality problems.

Mitigation Measures

Efforts toward water conservation should be made. Possible measures include:

- Landscape watering during early morning hours or during the evening to reduce water loss from evaporation.
- Selection of drought-tolerant plants in lanscaping.
- Use of plumbing fixtures which will reduce water loss or consumption.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for domestic water.

4.6.10.8 Sewage

Sewage collection and treatment will be provided to the proposed land uses, through extension of existing City and Eastern Municipal Water District (E.M.W.D.) facilities. The Hemet-San Jacinto Regional Water Reclamation Facility has a present capacity of 5 MGD, leaving an unused capacity of 1.5 MGD. The 21-inch main sewer line in Stetson Avenue has a 3 MGD capacity, leaving an unused capacity of 2.75 MGD. Land Use Alternative No. 6 is expected to generate 2 MGD, based on the following generation rates:***

Residential	100 gal/person/day x 18,135 people =	1,813,500 gal/day
Commercial	100 gal/1,000 sq.ft./day x 155,700 sq.ft. =	15,570 gal/day
Industrial	100 gal/1,000 sq.ft./day x 2,700,720 sq.ft. =	270,072 gal/day
TOTAL		2,099,142 gal/day

* Kevin Kozad, Eastern Municipal Water District.
** Ibid.,.
*** Ultrasystems Planning Factors.

The proposed land use alternative will impact the E.M.W.D. facilities by generating an increased burden on existing system capacities. A sewage treatment plant is planned for the Winchester area to serve the Southwest Area and the southern part of the Valley, although a date is not available for the construction of this plant.

Mitigation Measures

Mitigation measures are closely related to water conservation measures mentioned in the previous section.

Unavoidable Adverse Impacts

The proposed land use alternative will generate sewage amounts close to the existing system capacities.

4.6.10.9 Telephone

Telephone service will be available to serve the proposed land uses, through extension of existing distribution lines. The proposed land uses will not cause a significant impact on the plans of the telephone company for providing service to the area, provided that growth occurs in increments.

Mitigation Measures

No mitigation measures are proposed.

Unavoidable Adverse Impacts

The proposed land use alternative will result in increased demand for telephone services.

4.6.10.10 Solid Waste

Refuse collection services will be provided by the City of Hemet. Refuse collection is mandatory at a frequency of two times per week.

On site generation of solid waste resulting from Land Use Alternative 6 is estimated to be 102,466 pounds per day or 51.2 tons, based on the following generation rates:*

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* Riverside County Waste Disposal Division.

$$\frac{118{,}870{,}000 \text{ kwh}}{\text{year}} \times \frac{10{,}387 \text{ BTU}}{\text{kwh}} \times \frac{\text{lb.}}{19{,}000 \text{ BTU}} \times \frac{\text{gal.}}{7.956 \text{ lb.}}$$

$$= 8{,}167{,}968 \text{ gallons/year}$$

Natural gas combustion has been estimated at 82.7×10^6 cubic feet per month.

Mitigation Measures

Energy Conservation. The commercial and industrial buildings in the project area should be designed for optimum energy-efficiency in accordance with Energy Conservation Standards for New Non-Residential Buildings* adopted by the State of California Energy Commission on February 5, 1976.

The new regulations prescribe energy conservation standards for non-residential buildings in California. Specifically, the regulations include energy saving designs for roof, wall, and floor installations, and also contain lighting, heating and air conditioning and hot water supply specification standards. The regulations encourage the use of solar and wind power and other non-depleting energy sources. They offer builders the option of utilizing any building design that consumes less energy than the standard design described in the regulations. The regulations will be enforced by local building officials through the permit process.

Energy consumption in non-residential buildings is determined by interior heating and cooling requirements. The major climate influence in the Hemet area is that of the Continental Air Mass, with the ocean determining the climate no more than 15 percent of the time. Two climates occur within the Hemet Valley area. Cold air basins are formed in the valley, where the project site is located.

The overall climate in the San Jacinto area is defined as semi-arid. Yearly rainfall averages 12.81 inches. On the average nine inches, or seventy percent of the total, falls in the four months, December through

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* Energy Conservation Standards for New Non-Residential Buildings. Regulations establishing energy conservation standards for new non-residential buildings, adopted by the State Energy Resources Conservation and Development Commission pursuant to Sections 19878-19878.8 of the Health and Safety Code and Section 25402(a) of the Public Resources Code are contained in California Administrative Code, Title 24, Part 6, Division T20, Chapter 2, Subchapter 4, Article 2, Sections T20-1450 to T20-1550.

Residential	2.5 lb/person/day x 18,135 persons =	45,338 lb/day
Commercial	2 lb/day/100 sq.ft. x 155,700 sq.ft. =	3,114 lb/day
Industrial	2 lb/day/100 sq.ft. x 2,700,720 sq.ft. =	54,014 lb/day
TOTAL		102,466 lb/day

The two landfill sites serving the Southwest Area will be impacted by the solid waste generated; however, the life of the landfills are projected beyond the year 2000.

Mitigation Measures

Separation of wastes at the source could be encouraged to facilitate resource reclamation and recycling efforts.

Unavoidable Adverse Impacts

This alternative will result in an increased burden upon landfill sites.

4.6.11 Energy

Implementation of the proposed land uses will result in consumption of non-renewable energy resources, both in the short-term and in the long-term.

Short-term impacts include use of non-renewable energy resources during the construction phase of the proposed project. Fossil fuels will be used to operate construction machinery as well as to transport workers to and from the project site. Since construction materials themselves have required the consumption of energy for their production, use of construction materials also represent consumption of energy resources.

Long-term impacts due to project implementation include consumption of gas and electricity for heating, cooking and water heating (see section regarding Public Services and Utilities). Long-term impacts also include the consumption of gasoline.

The amount of fossil fuels burned for production of electricity to serve the project can be estimated, as can the amount of natural gas burned. Residents of the proposed project are estimated to consume 9,905,564 kwh/month or 118,870,000 kwh/year. Using the formula below it has been calculated that an estimated 8,167,968 gallons of low sulfur fuel oil is necessary to generate the required electric power.

March. According to State Climatologist, the average temperature in the area over a period of a year is 62.4°. The average high is nearly 99° in July and the low is 34.5° in January. The prevailing winds are from the southwest and, according to the Riverside County Department of Development, the mean hourly speed is nineteen miles per hour.

The State Energy Resources Conservation and Development Commission has adopted regulations establishing energy conservation standards for new residential buildings. These regulations took effect July 1, 1978 after which no new residential building permits may be issued unless the building design is in compliance with the new standards. The Energy Commission has developed a Residential Energy Conservation Manual to assist designers, builders, building officials and contractors in interpreting and implementing the new standards. Provisions for life cycle cost comparison of electric, natural gas, and solar space and water heating systems are included in the standards.

The Energy Commission has also adopted energy conservation standards covering new appliances. In accordance with these standards, no new appliance manufactured after the effective dates provided in the standards may be sold in California unless certified by the manufacturer to be in compliance with the new standards. The appliances covered under the standards include gas fired, forced air control furnaces, gas cooking appliances, gas clothes dryers, room and central air conditioners, refrigerators and freezers, and gas hot water heaters.

Unavoidable Adverse Impacts

Implementation of this land use alternative will result in consumption of non-renewable energy resources, both in the short-term and in the long-term.

4.7 No Project Land Use Alternative--Impacts and Mitigation Measures

Summary of No Project Land Use Alternative No. 7

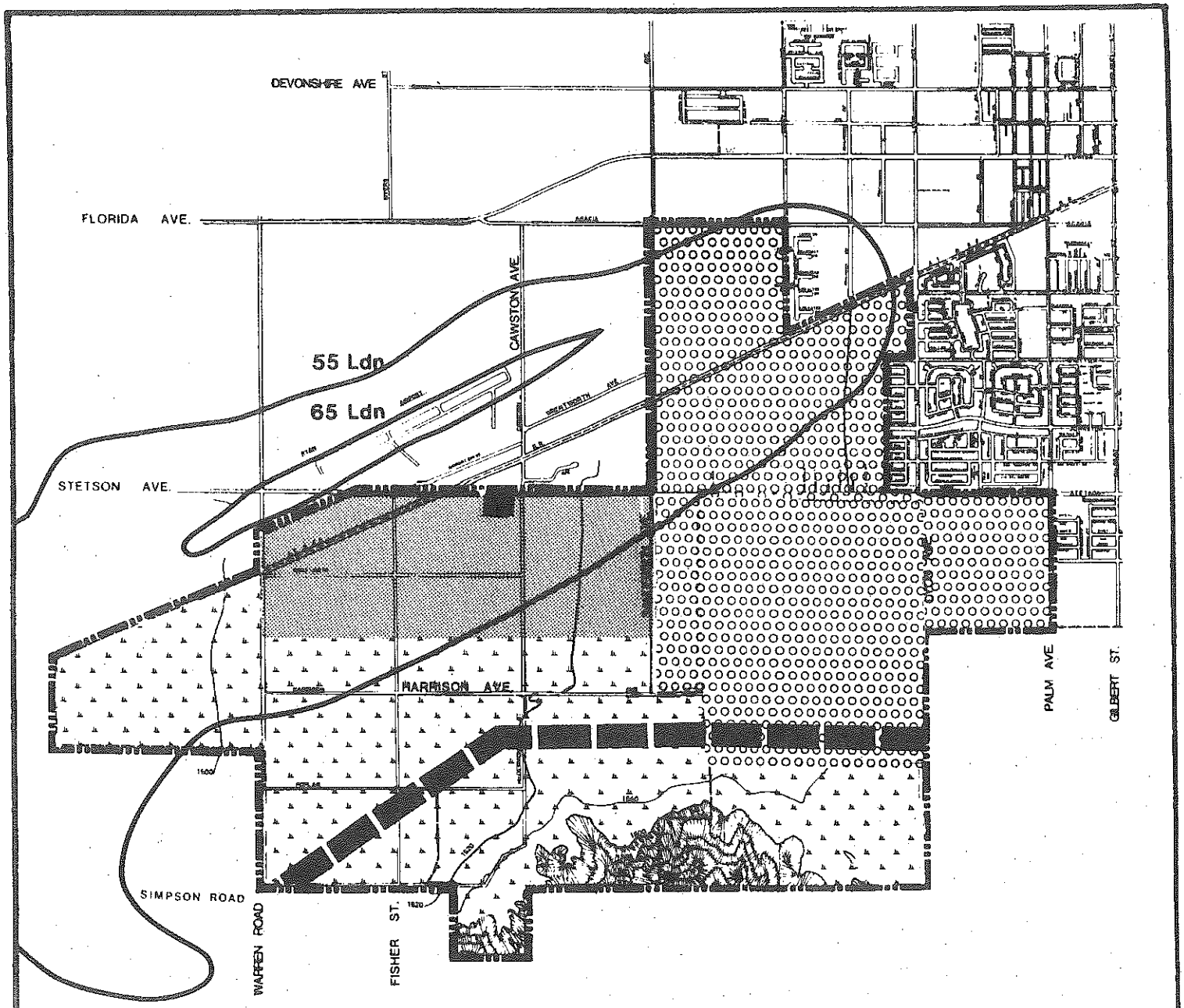
The No Project Land Use Alternative, as shown in Figure 44, allows growth in the Southwest Area by following the land use assumptions set forth in the Hemet-San Jacinto General Plan:

1) Suggests that residential development be limited to those areas outside the 55 Ldn noise contour of Hemet-Ryan Airport but does not restrict residential development within the 55 Ldn noise contour.
2) Allows existing flooding problems to be mitigated with construction of a flood control channel.
3) Residential development of floodway land would be permitted.
4) Restricts development on steep hillside slopes.
5) Maximum growth of 17,870 on 2,286 acres suitable for residential development.
6) Very low density residential development of one dwelling unit per 2 acres or more will be permitted on a maximum of 43% of the land or approximately 1,380 acres.
7) Moderate density residential development of a maximum of 7 dwelling units per acre will be permitted on 20% of the land or approximately 636 acres.
8) No mobile homes or multiple family units will be allowed.
9) Open Space may be reduced ultimately to 17% of the area.
10) 418 acres of industrial uses and 2 acres of commercial uses will be permitted in the area.
11) Maximum development of the land suitable for residential development would not encourage redevelopment of existing City area.
12) May not provide the necessary protection of the airport from encroachment and may not protect residential development from airport noise.

4.7.1 Land Use

Zoning

No Project Land Use Alternative would require zone changes in the Residential Agricultural zone (RA) to allow for the increased residential



AGRICULTURAL 1 DU/2 acres

RESIDENTIAL 3-7 DU/ acre

INDUSTRIAL

COMMERCIAL

0' 3000' 6000'

NORTH

Ldn NOISE CONTOUR

ULTIMATE FLOOD CONTROL CHANNEL

Source:

ULTRASYSTEMS, INC.

Title:

LAND USE ALTERNATIVE NUMBER 7

44

densities proposed. Other areas zoned RA will require zone changes to industrial and commercial uses. Development would be restricted on steep hillside slopes. Construction of the flood control channel would permit residential development within the floodway zoning designations would have to reflect these land uses and constraints. The existing zoning allows a maximum of 4,624 single-family units. The Hemet-San Jacinto General Plan could generate a maximum of approximately 16,754 single-family units. The area designated as M1 would increase from 148 acres to 418 acres and the 12 acres of commercial designation would be reduced 10 acres.

General Plan

The No Project Alternative would actualize the existing Hemet-San Jacinto General Plan. This plan would allow for a maximum 2,286 acres of land suitable for residential development. Minimum residential densities would be one dwelling unit per 2 acres and maximum residential densities would be seven dwelling units per acre. The construction of the flood control channel would permit development of the floodway and floodplain.

The noise element only suggests that residential development be restricted within the 55 Ldn noise contour of Hemet-Ryan Airport. Therefore, the maximum suitable land for residential development must include all lands designated in the General Plan Map. This alternative deviates from the Hemet-Ryan Land Use Plan which permits low intensity residential uses (0-.4 DU/AC) within the 55 Ldn noise contour, provided that average interior noise levels will not exceed 45 dB.

Due to these reduced land use constraints, more land will be available for residential development. Open space land uses, including the flood control channel and steep slopes, will be reduced to 17% of the Southwest Area.

By increasing the growth capacity of the Southwest Area, redevelopment and infill of existing developed areas in Hemet would not be encouraged until the ultimate population capacity is reached.

Mitigation Measures

The effects of the increase in density could be mitigated to some extent by the use of multiple and cluster housing which provides increased open space.

There should be early coordination between Riverside County, LAFCO, and the City of Hemet to assure that future development of the unincorporated area surrounding Hemet either be annexed into the City of conform with the Hemet General Plan. This coordination between these jurisdictions will provide the City with necessary planning controls, mitigating incompatible land uses and conflicting development standards.

Unavoidable Adverse Impacts

Open space will be reduced to 17% of the Southwest Area. Approximately 1,633 acres of prime agricultural land will be lost.

4.7.2 Archaeology

Proposed construction-related activities could constitute adverse impacts to the archaeological resources discovered at the RIV-1162 site. In addition, resources may be present on unsurveyed portions of the Southwest Area and will also be subject to destruction. The flood control channel in Salt Creek would be constructed through the RIV-1162 archaeological site. Destruction, impairment or removal of artifacts and features on the survey site will result from construction of the channel unless proper mitigation measures are taken. The old cemetery on Stetson Avenue is not expected to be impacted by the project. Once approved, new construction in the Southwest Area could then add pressure to develop adjacent areas east and northwest of the site where archaeological findings have appeared and areas of Indian activity have been recorded. The entire Page Ranch property and the Sundberg property at Stetson and Cawston have been surveyed by a qualified archeologist. These properties do not contain archeological resources.

Mitigation Measures

The RIV-1162 archaeological site should be resurveyed for collection of any surface debris. Based on these findings, a final report should be prepared to provide mitigation measures and recommendations. In addition, future development sites must be surveyed for archeological resources and mitigation measures recommended on the basis of future finds.

Unavoidable Adverse Impacts

Possible destruction, impairment or removal of artifacts and features.

4.7.3 Vegetation and Wildlife

Biological resources in the Southwest Area have previously been disturbed by agricultural uses. However, the project will impact the existing vegetation and wildlife on the site by construction-related clearing of vegetation and alteration of topography during site preparation. The presence of structures, roads and human activity will also impact wildlife after construction. The project will result in the dislocation or destruction of existing vegetation and wildlife species on the site.

Only 17% of the Southwest Area will be preserved as open space, including the flood control channel and steep hillside slopes. However, even these remaining open space areas will be disturbed by the adjacent construction and resident activities. Landscaping will result in the introduction of plant species not present now and may attract animals that are now infrequent or absent. Watering and fertilizing of lawns will allow new species of plants to grow in areas adjacent to the lawns. The presence of structures and fences will restrict the movement of coyotes, rabbits and other mammals and amphibians.

Mitigation Measures

The proposed preservation of 17% of the site as open space will somewhat mitigate the impact upon vegetation and wildlife. The natural and undisturbed areas will provide a habitat for wildlife to relocate. Biological resources surveys, prior to development would provide assurance that no rare or endangered plant and wildlife species will be disturbed.

Unavoidable Adverse Impacts

Existing vegetation and wildlife species in the Southwest Area will be dislocated or destroyed.

4.7.4 Climate and Air Quality

Short-term Impacts

The construction phase of developments associated with the project will produce two sources of air pollution emissions. These are exhaust emissions from construction and grading equipment and dust generated as a result of earth

movement and equipment traffic over dust laden roads. The dust emissions may cause a nuisance to any persons who reside or park motor vehicles in the vicinity of the project. However, the emissions will be of short-term duration.

Long-term Impacts

Long-term impacts associated with the project consist of emissions generated by the following sources:

Stationary	Mobile
Off-site generation of electricity for project On-site use of natural gas for cooking, space heating, and water heating.	Motor vehicles

Stationary Sources

Stationary on-site emissions from natural gas combustion associated with the project are presented in Table 47. As shown in the Table, the contribution of project on-site stationary emissions to the total emissions projected for Riverside County is nearly negligible.

The stationary emissions resulting from the project electrical energy demand will occur off-site at electrical power generating plants (nuclear, oil, and hydroelectric) located throughout the utilities generating network. The total emissions due to the generation of electricity for this project are given in Table 48 assuming the power is provided by an oil burning power plant.

Mobile Sources

An estimate of the total motor vehicle emissions generated by traffic associated with the proposed project is shown in Table 49. As indicated in the Table, the average contribution of project motor vehicle emissions to the total projected emissions for Riverside County for the year 1995 is about 0.0 percent upon project completion.

Total Emissions

The total pollutant emissions associated with the project are presented in Table 50.

TABLE 47

LAND USE ALTERNATIVE NO. 7
OF NATURAL GAS (ON-SITE)

POLLUTANT	EMISSION FACTOR* LBS/1000 FT^3	PROJECT EMISSIONS** LBS/DAY	TOTAL 1995 EMISSIONS FOR RIVERSIDE COUNTY*** TONS/DAY	PERCENT OF TOTAL COUNTY EMISSIONS
Carbon Monoxide	Negl	Negl	203	Negl
Total Hydrocarbons	Negl	Negl	40	Negl
Nitrogen Oxides	0.116	311	48	0.3
Sulfur Oxides	Negl	Negl	6	Negl
Particulates	0.018	48	29	0.1
TOTAL (Average)	--	359	326	(Negl)

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.
** Assumes 80.7 million cubic feet of gas/month.
*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

Negl = Negligible

TABLE 48

LAND USE ALTERNATIVE NO. 7
WITH ELECTRICITY GENERATION (OFF-SITE)

POLLUTANT	EMISSION FACTOR* LBS/1000 KWH	PROJECT EMISSIONS** POUNDS/DAY
Carbon Monoxide	0.2	81
Total Hydrocarbons	0.18	73
Nitrogen Oxides	2.3	931
Sulfur Oxides	2.6	1,052
Particulates	0.401	162
TOTAL	--	2,229

* Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.
** Assumes 12.14million KWH/month.

TABLE 49

ESTIMATED MOTOR VEHICLE EMISSIONS
ASSOCIATED WITH LAND USE ALTERNATIVE NO. 7

POLLUTANT	EMISSION* FACTOR (GRAMS/MILE)	ESTIMATED EMISSIONS** (LBS/DAY)	TOTAL 1995 EMISSIONS FOR RIVERSIDE COUNTY TONS/DAY***	PERCENT OF TOTAL COUNTY EMISSIONS
Carbon Monoxide	3.8	3,956	203	1.0
Nitrogen Oxides	0.7	728	48	0.8
Hydrocarbons	0.5	520	40	0.7
Sulfur Oxides	0.1	104	6	0.9
Particulates	0.3	313	29	0.5
TOTAL (Average)	--	5,621	326	(0.9)

* 1995 Emission Factors, Air Quality Handbook for Environmental Impact Reports, South Coast Air Quality Management District, February, 1977.
** Assumes 472,600 vehicle miles traveled.
*** Preliminary Emissions Inventory, Riverside County portion of SCAB.

TABLE 50

ESTIMATED TOTAL EMISSIONS
LAND USE ALTERNATIVE NO. 7

POLLUTANT	TOTAL EMISSIONS LBS/DAY
Carbon Monoxide	4,037
Total Hydrocarbons	593
Nitrogen Oxides	1,659
Sulfur Oxides	1,156
Particulates	475
TOTAL	7,920

Mitigation Measures

1. Normal wetting procedures should be followed during the site grading operations to reduce dust emissions.

2. The Southern California Association of Governments (SCAG) and South Coast Air Quality Management District are currently preparing in cooperation with City and County governments an Air Quality Management Plan (AQMP) designed to achieve and maintain Federal and State air quality standards within the South Coast Air Basin. The AQMP is to be submitted for approval to the State Air Resources Board by January, 1979 prior to submittal to EPA as a revision to the State's Implementation Plan. The AQMP is to identify the need for further control of stationary and mobile sources, alternate transportation strategies, and measures to reduce adverse air quality impacts associated with further growth and development. The proposed project should be reviewed for consistency with the objectives of the AQMP if finalized prior to project approval.

3. Provide for convenient bus stop locations.

Unavoidable Adverse Impacts

There will be additional emissions emitted in the southeastern portion of the South Coast Air Basin. These emissions will result in an incremental decrease in the quality of the air.

4.7.5 Geology and Soils

Development on the flat alluvial valley area will result in only slight immediate impact as development will be phased over many years. However, construction of a fully improved flood control channel will require significant amounts of landform alteration.

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone. The Southwest Area is about 2 miles from the San Jacinto Fault Zone and is underlain by alluvium of intermediate thickness. Earthquake shaking is expected to be strong to severe as a result of movement on any one of several faults within the San Jacinto Fault Zone. Settlement of soils due to ground shaking could pose a major hazard, especially in areas of fill. Slippage and landslide could possibly occur in the Domenigoni Mountains. The "Land Use/Risk Matrix" in the City of Hemet Seismic Safety and Public Safety General Plan Elements (1976) indicates that light industrial, low-density residential, warehousing and storage, and agriculture and park uses are "provisionally suitable" for most of this area. The increased residential densities proposed would expose a greater population to the risk of human and structural loss.

Mitigation Measures

Engineering geologic investigations should be required for all new construction within the Southwest Area. Construction according to the Earthquake Regulations of the Uniform Building Code and recommendations of a qualified structural engineer should mitigate the risk of human and structural loss.

Unavoidable Adverse Impacts

There is a significant hazard to structures and people in the Southwest Area due to the proximity of the active San Jacinto Fault Zone. The landform will be altered by grading for structures and flood control improvements.

4.7.6 Hydrology

Under this alternative land use plan, a fully improved, Salt Creek Channel would be constructed from Lyon Avenue to Highway I15E, designed to provide protection against 100 year frequency storms upon complete development of the Hemet area watershed. The ultimate channel right-of-way is expected to be 520 feet with a 230-foot base width. Channel excavation would be placed in spoil banks adjacent to the channel. Portions of this discussion were exerpted from the Draft EIR, Hemet Area Drainage and Salt Creek Channel Improvements.*

All lines proposed in the Hemet Area Master Drainage Plan would be constructed, as previously shown in Figure 11. Underground storm drains would be designed to carry the predicted runoff from 10-year frequency storms. The balance between 10-year and 100-year frequency storm runoff is carried in the streets. The street flows are discharged with the flow in the underground drains into open channels which are designed to accept 100-year storm runoff. Lines "A" and "D" will be enlarged to ultimate size downstream of Cawston Avenue. The principle design capacity of Hemet Channel will be 9500 CFS at its confluence with Salt Creek Channel. Salt Creek Channel will have a design capacity of 9200 CFS to Hemet Channel and 11,700 CFS from the Hemet Channel to Highway L15E.

The improvement of the Salt Creek Channel to the ultimate capacity of 11,700 CFS for the reach from Highway I15E to the Hemet Channel confluence, will obviously provide greater flood protection than an interim channel with a capacity of 1500 CFS. The direct impacts associated with the fully improved channel construction would be considerably greater than those resulting from an interim channel. The breadth of flood flows during a 100-year flood would be restricted to the confines of the channel. Thus, the hazard of flooding will be diminished for land within the Salt Creek flood plain and floodway. Since the Riverside County standard protection level for developments, specified in the Subdivision Ordinance, is for protection against 100-year frequency storms, the improved channel will remove a major obstacle to development

* Alderman, Swift & Lewis Consulting Engineers, 1977.

in a number of areas in both the City and County. Therefore, the removal of the flood hazard will have a growth-inducing impact on the Southwest Area.

Mitigation Measures

Both the City and the County have mechanisms to control and guide the development of flood plain area as proposed in the Land Use, Conservation and Open Space Elements of the County and City General Plans. The Federal Flood Insurance Program will mitigate the flood hazard.

Recreational areas and landscaping should be developed in flood channel areas to prevent adverse visual impacts. Flood control structures should be designed with equal sensitivity for aesthetics and utility.

Construction impact mitigation measures include:

1) Limit heavy construction to week days between the hours of 7:00 a.m. and 6:00 p.m.

2) Use water and temporary paving to prevent dust.

3) Reduce air pollution by using well-maintained equipment.

4) Reduce traffic problems by advance planning of construction and the use of appropriate traffic regulation and control devices and by using flagmen, if necessary.

5) Conserve energy needed for construction by using proper equipment and properly maintained equipment and by avoiding unnecessary trips and shuttle runs.

6) Mitigate stored equipment and material problems by appropriate security measures.

Unavoidable Adverse Impacts

The natural Salt Creek Channel will be replaced with man-made flood control facilities; however, the natural channel has been previously altered by farming operations and flood hazard will be reduced.

4.7.7 Noise

Impacts

The noise impacts considered in this section result from the following noise sources:

- Grading and construction equipment
- Farming equipment
- Future aircraft operations at Hemet-Ryan Airport
- Future highway traffic

Development within the Southwest Area is expected to take place through the year 2000. Due to the phasing of residential development, the following interim noise impacts could be expected:

1) Short-term impacts due to grading and construction activities could occur within noise sensitive uses such as residences and schools which would be in close proximity to construction activities. Noise impacts would be nuisance oriented; i.e., annoyance, speech communication interference, and sleep interference (for individuals who normally sleep during daytime hours). Because construction activity is generally limited to daytime hours, no adverse noise impact would be expected during the nighttime period.

2) Residential uses (receptors) located within the Southwest Area immediately adjacent to agricultural uses could experience adverse noise impacts due to late evening and early morning alfalfa harvesting activities. The primary noise impact would be sleep interference.

Under the no project alternative, residential development will not be restricted within the Southwest Area in terms of the Hemet-Ryan Airport noise environment. The noise element only suggests that residential development be restricted within the 55 Ldn noise contour of Hemet-Ryan Airport. Therefore, the maximum suitable land for residential development must include all lands designated in the General Plan Map.

The contour values illustrated in Figure 14, represent the "annual average" condition predicted for 1986, however, a qualifying statement is in order. Based on the data contained in the background report for Hemet-Ryan Airport noise contours (see Appendix A), the contour map does not necessarily represent the average day condition. Generally, fire bombers only use the airport during emergencies. Calculated as part of the annual average condition, fire bomber related aircraft (the C-119J specifically) tend to skew the results (they are significantly noisier than the general aviation aircraft), and therefore, the following two conditions will exist:

1) On days when fire bomber activity is not taking place, the noise environment would be approximately 5 dBA lower than shown for the average annual condition. This represents an acceptable noise environment for future residents of the Southwest Area.

2) On days when fire bomber activity is taking place, the L_{dn} will be considerably higher than the average annual condition. It is likely that residents located within the 55 Ldn contour line may be annoyed by fire bomber aircraft related noise events. The City of Hemet may receive noise complaints.*

Due to the limited amount of train traffic within the City of Hemet, no significant adverse noise impacts are expected within the Southwest Area. However, if industrial growth does occur in the future, and as a result creates a demand for additional rail service, future land use conflicts could result. Therefore, proposed development in the vicinity of the railroad right-of-way should be carefully considered by the City before any "noise sensitive" development is approved.

Highway traffic noise is expected to be the primary noise source within the Southwest Area. Noise levels are expected to increase significantly as more and more people move into the area. In general, highway traffic noise levels will be highest in areas located adjacent to the primary roadways in the study area. Ultrasystems has estimated noise levels within the vicinity of roadway segments as applicable to residential development for the No-Project

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* Refer to Appendix A, Response to Various Community Noise Levels.

Alternative.* Applicable roadway segments are identified in Figure 45 and the results of calculated L_{dn} exposure levels are contained in Table 51.

The criteria used to assess and prevent adverse highway traffic noise impacts are presented below:

Exterior Environments - Not to exceed L_{dn} of 55 dBA
Interior Environments - Not to exceed L_{dn} of 45 dBA**

Based on the preceding criteria and the data presented in Table 51, noise mitigations would be necessary in proposed residential areas where the estimated highway noise environment exceeds 55 dBA.

Based on the No-Project Alternative, development within the planning area is expected to generate an ultimate 94,500 vehicle trip ends per day. The majority of these trips will be oriented towards areas in the City. The result of additional vehicular movement will be a significant unavoidable increase in traffic noise emission levels within the City of Hemet.

Mitigation Measures

The following mitigation measures are recommended:

- Grading and construction activities should not be permitted between the hours of 7 PM and 7 AM, and on Saturday, Sunday, and legal holidays.
- Agricultural property owners within or adjacent to the Southwest Area should limit agricultural operations as much as possible during late evening and early morning hours. Farming equipment which must be operated during the noise sensitive hours should be equipped with adequate and well-maintained exhaust mufflers.

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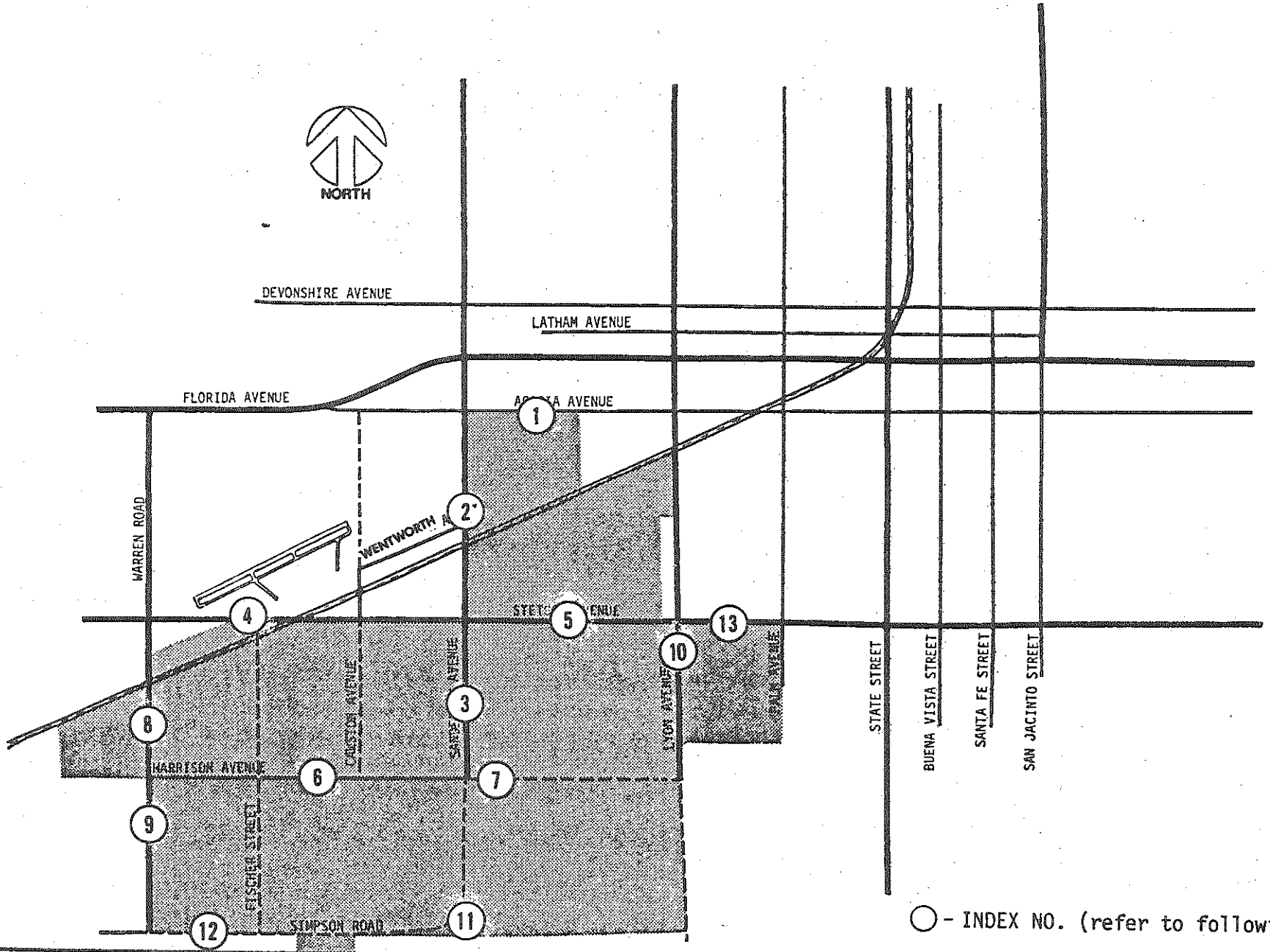
* See Appendix A for Highway Noise Model Assumptions.
** California Administrative Code Title 25. California Noise Insulation Standards. (Assumes a windows-closed condition).
NOTE: An acoustical analysis is required if residential structures are to be located within a noise environment (exterior) of 60 dBA or greater showing that the structure has been designed to meet the 45 dBA interior requirement.



○ - INDEX NO. (refer to following table)

Source: ULTRASYSTEMS, INC.

Title: LAND USE ALTERNATIVE 7
NOISE IMPACTED ROADWAY SEGMENTS

45

TABLE 51

CALCULATED L_{dn} EXPOSURE LEVELS

(NO PROJECT ALTERNATIVE)

INDEX NO.	ROADWAY SEGMENT	DISTANCE TO NOISE CONTOURS EXPRESSED IN FEET FROM CENTERLINE OF ROADWAY		
		55 dBA	60 dBA	65 dBA
1	Acacia-East of Sanderson	114	53	25
2	Sanderson-Acacia/Stetson	356	165	77
3	Sanderson-Stetson/Harrison	220	102	47
4	Stetson-East of Warren	179	83	39
5	Stetson-East of Sanderson	382	177	82
6	Harrison-Warren/Sanderson	70	32	15
7	Harrison-East of Sanderson	76	35	16
8	Warren-North of Harrison	242	112	52
9	Warren-South of Harrison	242	112	52
10	Lyon-South of Stetson	135	63	29
11	Simpson-South of Harrison	207	96	45
12	Simpson-Warren/Fisher	206	95	44
13	Stetson-Lyon/Palm	343	159	74

- If train operations increase enough to create a significant adverse noise impact, noise mitigation measures should be considered. Land uses such as residences and school would not be suitable for development at locations immediately adjacent to the railroad right-of-way. Residences which would be located in the general vicinity of the railroad should be screened from railroad noise sources by solid sound barriers such as earthen berms or earthen berm/walls. Project design should stress the orientation of structures away from the railroad including windows and other openings.

- A detailed acoustical analysis will be required for residential development located within the 60 dBA noise contour from highway noise sources. The analysis is required in order to prove that the indoor environment will be reduced to a level of 45 dBA or less.*

- Highway noise mitigation measures such as acoustical site planning and/or the design of earthen berms or berm/wall combinations will be necessary in order to reduce noise to acceptable levels (exterior-55 dBA or less) for residential development within the Southwest Area.

  NOTE: Residential structures can be utilized to attenuate noise through proper acoustical planning. Outdoor areas can be effectively screened from unwanted noise by incorporating the residential structure as a sound barrier. However, if this concept is used to provide an acceptable interior environment, all windows, vents and other normal openings should be oriented away from the highway noise sources.

- Heavy trucks (3 axles or more) are a major source of highway noise. Therefore, limit heavy truck traffic to the following roadway segments (within or adjacent to the Southwest Area):

  - Warren
  - Stetson-Warren/Sanderson
  - Cawston

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* Title 25 California Noise Insulation Standards.

- The mitigation of highway noise outside the Southwest Area may only be practical or economically viable for new rather than existing noise sensitive land uses.

Unavoidable Adverse Impacts

Traffic generated in the Southwest Area will create a significant increase in traffic noise levels locally and in the City of Hemet.

4.7.8 No Project Alternative

Traffic and Circulation

Impact

The traffic impacts that would result from the development of the Southwest Hemet study area would be incremental in nature and would relate to the degree of completion of the area's various development components. However, since a developmental time frame has not been established, this analysis considers the impacts that could be anticipated at the full build out according to the existing General Plan for the area. Table 52 presents a traffic generation forecast for the Southwest Hemet study area once fully developed according to the existing General Plan (no project alternative). Traffic generation estimates are included for the AM peak hour and PM peak hour as well as 24-hour volumes for an average weekday. Generation factors included in Table 52 have been taken from studies compiled by Caltrans (California Department of Transportation) and from studies compiled in the Institute of Transportation Engineers Information Report on Trip Generation.

Traffic Generation is expressed in vehicle trip ends where a trip end is a one-way vehicular movement either entering or departing a generating land use. Summation of the vehicle trip ends generated by development of the various

land use components included in the existing General Plan for the Southwest Area, would produce just over 94,500 vehicle trip ends per day evenly distributed between inbound and outbound. An estimated 11,545 vehicle trip ends would be expected to occur during the PM peak hour (5465 inbound and 6080 outbound) while just under 9900 vehicle trip ends (5510 inbound and 4380 outbound) would be generated during the AM peak hour.

It should be noted that the traffic generation potential listed in trip ends in Table 52 is somewhat higher than the number of vehicles that would physically be added to the adjacent street system. Each vehicle trip has two trip ends, one at the origin of the trip and one at the destination. If all vehicle trips generated within the Southwest Hemet study area had origins or destinations outside the combined study area, the total number of vehicle trip ends generated would equal the total number of vehicle trips produced within the study area. However, a certain percentage of residential units will interact trip wise with each other as well as other uses to be contained within the study area, i.e., any commercial centers, the Seven Hills Golf Course, the Hemet Ryan Airport, and any future industrial development. Therefore, this one-to-one relationship between vehicle trip ends and vehicle trips does not apply. The number of vehicle trips in terms of vehicles physically added to the adjacent street system is somewhat less than the total number of trip ends produced by the various components of the total study area. For the purposes of this analysis, therefore, it has been assumed that 25 percent of the estimated vehicle trip ends to be generated by development within the study area would be completely internal to the area.

In addition, a daily traffic generation rate of 10 trip ends per dwelling unit has been used for the projections made in this report. This generation rate is generally associated with single family detached dwelling units. Other residential uses such as multi-family townhouses or condominium units, apartments and mobile home parks typically have lower traffic generation rates. For this reason the traffic generation forecast listed in Table 52 is considered conservatively high.

TABLE 52

TRAFFIC GENERATION FORECAST - Existing General Plan Development

Development	AM Peak Hour			PM Peak Hour			24 Hour
	Inbound	Outbound	Total	Inbound	Outbound	Total	2-Way
7DU/Acre Moderate Residential (4452D.U.) Generation Factor* (T.E./D.U.)**	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	1330	2670	4000	3120	1780	4900	44,520
Very Low Residential 1 DU/2 Acres (690 D.U.) Generation Factor (T.E./D.U.)	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	210	415	625	485	275	760	6900
Seven Hills Area Residential (1458D.U.) Generation Factor (T.E./D.U.)	0.3	0.6	0.9	0.7	0.4	1.1	10.0
Generated Vehicle Trips	440	875	1315	1020	580	1600	14,500
Commercial/Industrial (420 Acres) Generation Factor (T.E./D.U.)	8.4	1.0	9.4	2.0	8.2	10.2	68.1
Generated Vehicle Trips	3530	420	3950	840	3445	4285	28,600
Total Traffic Generated	5510	4380	9890	5465	6080	11,545	94,520

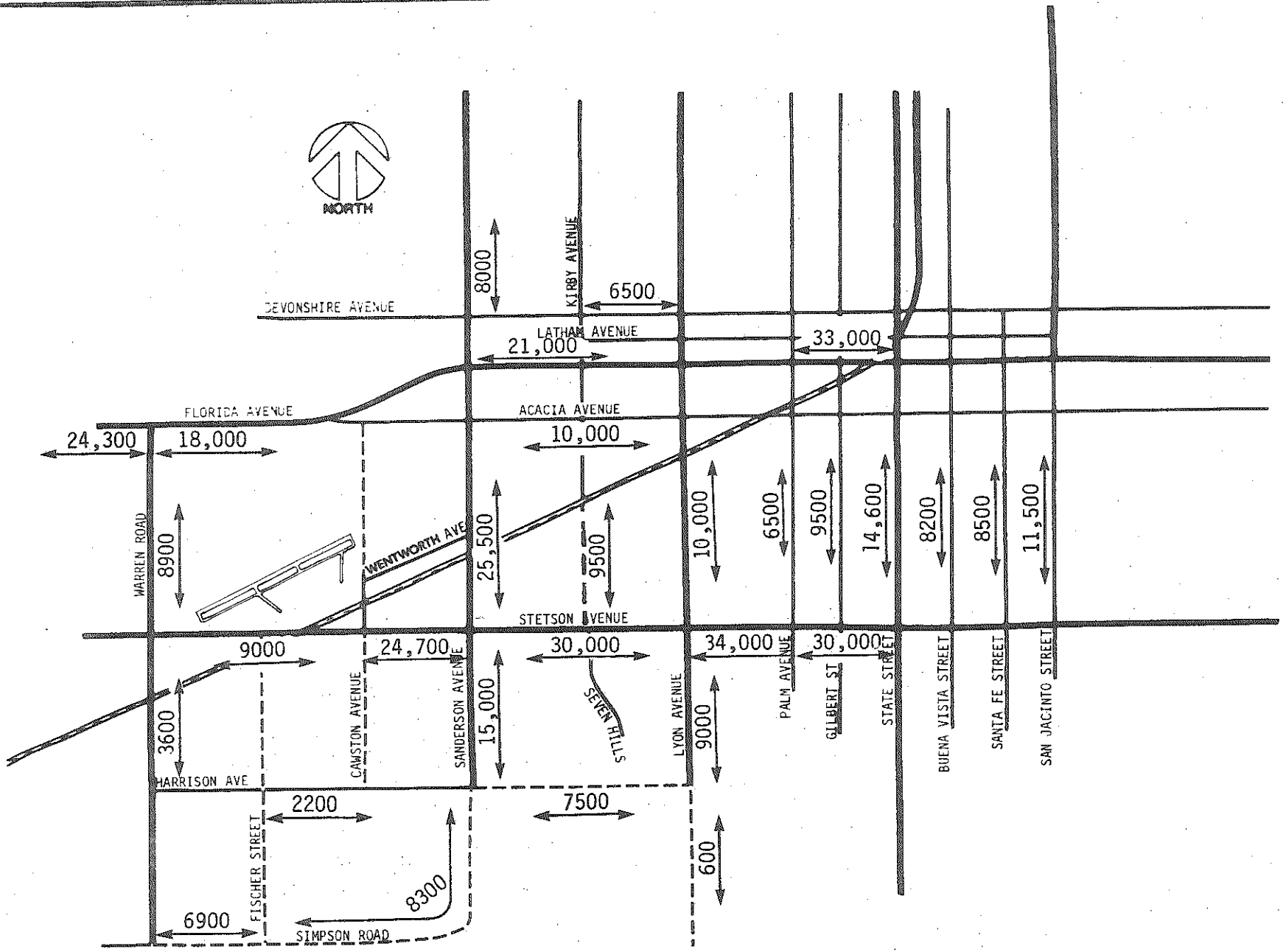
*Section 210, Trip Generation, An Informational Report of the Institute of Transportation Engineers, 1976.

**T.E./D.U. = Trip Ends/Dwelling Unit. A trip end is a one-way vehicular movement either entering or leaving the generating land use.

The traffic generation potential associated with the various land uses within the southwest study area has been distributed and assigned on a component-by-component basis for each land use designation contained within the specified alternative. The current area roadway system and existing travel patterns, the current and projected population and employment distribution, a review of potential development surrounding the study area, and projected roadway expansion as reflected in the current Master Plan of Highways of both the City of Hemet and County of Riverside were factors considered in carrying out this traffic distribution. As previously mentioned, a percentage of the traffic generated within the study area is expected to be internal to the area itself. The major attraction of the trips generated that would be external to the study area, would still be expected to be to the north and east of the study area. On this basis, roughly 60 percent of the traffic generated by development within the Southwest Area is expected to be oriented to the north and east of the study area. Fifteen percent is projected to be oriented to the west with the remaining 25 percent completely internal to the study area.

The assignment of the Southwest Area traffic to various links of the master planned highway system was not capacity restrained in that future total volumes at any one location were not limited to the capacity associated with the functional classification of that link as shown on the City and County master plans. Figure 46 carries out the distribution and assignment procedure and illustrates the future total traffic volumes on those roadways shown based on anticipated travel desires. The traffic volumes shown in Figure 46 represent a summation of existing roadway volumes and those volumes projected to be added as a result of development in the Southwest Area. They do not reflect any additional growth in traffic volumes that might occur as a result of development in other areas of Hemet.

As illustrated in Figure 46, the primary traffic impact as a result of development in the Southwest Area, would be experienced along Stetson Avenue which would realize a traffic volume increase of roughly 25,000 vheicles per day. This would result in daily traffic volumes on Stetson Avenue of between 30,000 and 34,000 vehicles per day. Sanderson Avenue would also receive a significant increase with daily traffic volumes ranging between 25,500 vehicles



Source:

Linscott, Law & Greenspan, Inc.

Title:

Daily Traffic Distribution
Existing General Plan

46

per day north of Stetson Avenue and 15,000 vehicles per day south of Stetson Avenue. Simpson Road would be expected to carry just over 8000 vehicles per day, while Lyon Avenue would be projected to carry between 9000 and 10,000 vehicles per day.

Kirby Avenue currently ends just south of Acacia Avenue, however it will be necessary to complete Kirby Avenue southerly to Stetson Avenue as the southwest area develops. Kirby Avenue, when completed to Stetson Avenue, would provide relief to traffic volumes projected for Sanderson Avenue as well as provide access to that portion of the Southwest Study area it traverses and to the Seven Hills development. As previously mentioned, Lyon Avenue and Palm Avenue run through residential areas (in particular those areas immediately north of Stetson Avenue developed into mobile home lots) that may preclude future roadway widening thereby limiting their respective traffic carrying capabilities. This fact further illustrates the importance of Kirby Avenue to the areas circulation system as future development occurs.

Similarly, Gilbert Street and State Street would become secondary north-south routes for traffic generated and attracted to the Southwest Hemet study area. These two roadways are projected to carry approximately 9500 and 14,600 vehicles per day, respectively. Other impacted roadways and their respective projected traffic volumes are shown on the distribution figure.

Twenty-four hour roadway capacities were estimated, based on the master planned cross-sections shown in Figure 18 and on the following assumptions: An ultimate population of between 25,000 and 40,000 a peak hour factor of .85, 5 percent trucks, 10 percent right turns, and a G/C ratio of .50. The resulting capacities that were determined by these assumptions were as follows:

Functional Classification	Capacity
Collector	11,000
Secondary	17,000
Major	20,000
Arterial	21,500

It should be noted that the actual capacities could vary from those calculated above as the area develops and actual traffic characteristics can be determined. Roadway capacity when evaluated on a corridor basis, for instance, often results in a range in capacity values (for example, traffic volumes of between 20,000 and 30,000 vehicles per day are commonly associated with arterial highways). This range depends upon such things as access control, intersection spacing, and signal progression. However, the capacities calculated above are believed to be reasonable and appropriate values for planning purposes.

The calculated roadway capacities above and the projected future roadway volumes shown in Figure 46 were used to determine a recommended circulation system for the various alternatives proposed. Capacity deficiencies and surpluses were balanced among parallel routes to develop a recommended arterial highway system. This procedure assumed that the local circulation system would be designed in such a manner so as to more evenly distribute study area traffic to the arterial roadway system for a particular travel orientation. The recommended circulation networks also assumes intersection widening techniques would be implemented to the next highest functional classification where that higher classification would not be justified over an entire roadway link. It has also been assumed that the proposed circulation system would be developed so that the various roadway segments would be constructed out of the existing floodway, or in such a manner that access would be maintained should a flood occur.

On this basis then, the following master planned highway cross-sections are recommended for roadways in the Southwest Area should it develop according to the existing General Plan.

Roadway	Classification
Sanderson Avenue	Secondary/Arterial
Stetson Avenue	Arterial
Acacia Avenue	Secondary
Harrison Avenue	Collector
Simpson Road	Collector/Secondary
Warren Road	Collector/Secondary
Cawston Avenue	Collector
Fischer Street	Collector
Lyon Avenue	Collector/Secondary
Kirby Avenue	Collector/Secondary

To individually calculate the estimated capacity utilization at each intersection within the study area is beyond the scope of planning at the general plan level. Thus, in this report, hypothetical capacities have been utilized and a more refined analysis should be made as the area develops.

It becomes apparent, when balancing capacity deficiencies and surpluses among parallel routes, that another east-west route, paralleling Stetson Avenue to the south, would be essential to the areas development. Harrison Avenue is currently master planned as a secondary highway between Warren Road and Lyon Avenue on the Hemet-San Jacinto General Plan and between Warren Road and State Street on the Circulation Element of the Riverside County General Plan. This master planned secondary highway would provide the additional east-west route needed to accommodate future traffic volumes projected to occur as a result of development planned in the area. It should be noted however, that a golf course has been constructed and is in operation in that area that would include the easterly extension of Harrison Avenue as currently shown on the respective Highway Master Plans. It may be necessary, therefore, to amend the existing Highway Master Plans (Hemet and Riverside County) to reflect a more southerly alignment of Harrison Avenue should this new alignment prove more advantages to the City of Hemet and development in the Southwest area.

Signalization of the major intersections within and immediately adjacent to the Southwest Area would undoubtedly be warranted upon completion of the entire development. These intersections may include Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue, Sanderson Avenue and Acacia, and Stetson Avenue and Cawston Avenue. However, since traffic signals should be installed only after positive evidence of their need has been demonstrated, it is recommended that specific intersections be evaluated as necessary prior to ultimate occupancy of the area's planned development.

The development of the Southwest Study area according to this alternative would generally impact all transportation facilities in the Hemet area. It is difficult however, to quantify traffic impacts at locations more distant from the study area. This is due to the fact that traffic volumes generated by land development within the area tend to dissipate or "decay" as the distance from the generating source and a particular location under consideration increases. It can reasonably be expected however, that the primary north-south routes between Stetson Avenue and Florida Avenue would receive a significant amount of study area generated traffic. Also, major trip attractors are still expected to be located along Florida AVenue for some time in the near future. Therefore, traffic generated by development within the Southwest Hemet study area, could be expected to further impact traffic conditions along Florida Avenue.

As previously mentioned, the only public transportation service to the area at the present time is provided by a dial-a-ride system. Due to the lack of public transportation to rural areas such as Hemet, those residents who do not own their own automobiles are dependent on a relative, friend or neighbor to provide for any transportation needs. When these sources or public transportation systems are unavailable, they remain isolated. The Riverside Transit Agency is attempting to alleviate some of the problems which confront many transportation disadvantaged individuals in the county. The development of the southwest area of Hemet may enable public transportation into this area to become more economically feasible, thus enhancing the efforts to improve public transportation facilities.

When specific project site plans for the various components of the Southwest Area are developed, provisions should be made for adequate off-street parking. General parking demands for several common types of land uses and off-street parking requirements are listed in the Riverside County zoning ordinance and presented in Table 53.

The development of the Southwest Area according to the existing General Plan would result in an estimated daily VMT (vehicle miles traveled) increase or roughly 472,600 miles per day.

TABLE 53

PARKING REQUIREMENTS

TYPE OF LAND USE	SPACES REQUIRED[1]	ORDINANCE 348[2]
Retail Store*	1 per 350 sq. ft. GFA**	1 per 250 sq.ft. GFA
Office Building	1 per 300 sq. ft. GFA	1 per 250 sq.ft. GFA
Restaurant (sit down type)	1 per 4.5 seats	1 per 45 sq.ft. of serving area
Single-Family Dwelling	2 per unit	1 per D.U.
Multi-Family Dwelling	1.75 per unit	1 per D.U.
Shopping Center 30,000=75,000 sq.ft. GFA	7 per 1,000 sq.ft. GFA	1 per 150 sq.ft. GFA

* Not in a shopping center.

** GFA - Gross Floor Area

SOURCE: [1] Traffic Engineering for Small Cities and Counties, Automobile Club of Southern California, p. 11.

[2] Riverside County Zoning Ordinance No. 348, Section 18.12.

Mitigation Measures

The following measures are suggested as a means of mitigating potential traffic impacts generated by the development of the Southwest Area as proposed herein. The measures listed below would have the effect of improving anticipated traffic conditions with regard to both project-related traffic and total area traffic which would result from other future growth in the area.

- The construction and improvement of the following roadways to their recommended master plan cross-section will be required to accommodate the anticipated traffic volumes that are projected from development within the Southwest Area:

Roadway	Master Plan Cross-Section
Sanderson Avenue	Secondary/Arterial
Stetson Avenue	Arterial
Acacia Avenue	Secondary
Harrison Avenue	Collector
Simpson Road	Collector/Secondary
Warren Road	Collector/Secondary
Cawston Avenue	Collector
Fischer Street	Collector
Lyon Avenue	Collector/Secondary
Kirby Avenue	Collector/Secondary

- Construction of all planned local collector streets to the standards set forth in the Riverside County General Plan and the Hemet-San Jacinto General Plan.

- The installation of traffic signals at the following intersections will undoubtedly be warranted. Sanderson Avenue and Stetson Avenue, Lyon Avenue and Stetson Avenue, Sanderson Avenue and Acacia Avenue, and Stetson Avenue and Cawston Avenue. However, as previously discussed, the installation of traffic signals should be made only after positive identification of their need has been established and it is recommended that these intersections be evaluated as necessary prior to ultimate occupancy of the areas planned development.

- Promote ride-pooling (car-pools/van-pools) with regard to persons employed in any planned commercial and industrial activities. This would have the potential of reducing daily commuter traffic and on-site parking requirements.
- Demand-responsive (dial-a-ride) public transit should be encouraged. Where practical, small vans or busses should be used. Provision of a public transit system will reduce potential auto travel, and provide mobility to those residents who are either too young to drive, do not drive, no longer drive, or are not capable of bicycling.
- The feasibility of expanding the Riverside Transit Agency's transportation service in the Hemet area should be considered.
- Control of access to the arterial and major street system as outlined in the Riverside County Subdivision Ordinance No. 460 should be encouraged. Control of access reduces the number of potential traffic conflicts, smoothes out traffic flow and increases traffic capacity.
- Provide sufficient off-street parking to meet anticipated demand for each planned use, taking into account the County zoning ordinances and the potential for overlapping or joint use of parking areas serving such complimentary land uses as may be developed.
- Provide separate bicycle and pedestrian pathways throughout the project as a means of promoting alternative forms of movement. For safety, convenience and efficiency, these systems should be separated from the vehicular traffic system and from one another.
- Establish land use patterns, intensities and relationships which would reduce vehicle trip-making characteristics and promote the use of alternative modes of travel such as bicycles, walking and transit. For example, increased residential densities adjacent to the planned commercial activities and open spaces designed with integral bike paths and pedestrian ways.

Unavoidable Adverse Impacts

Land Use Alternative No. 7 could produce over 94,500 vehicle trip ends per day evenly distributed between inbound and outbound.

4.7.9 Open Space and Conservation

The No-Project Alternative would reduce the amount of open space in the Southwest Area by approximately 83 percent. Approximately 2,706 acres of open space will be reassigned for residential, commercial and industrial land uses. The remaining 10 percent, including the flood control channel and steep hillside slopes, will remain in the current agricultural and open space use. Development would be restricted on steep hillside slopes over 25%, consistent with the Hemet Open Space and Conservation Element.

The Salt Creek floodway will remain as open space; however, the channel will be altered by construction of a flood control channel. Portions of the flood plain may be lost as open space to residential development. The proposed improvements to Salt Creek will open up agricultural land to urban development possibilities.

The Southwest corner of the Southwest Area, which is unincorporated County land, is the only part of the project area with an agricultural preserve status. Portions of this agricultural preserve may be developed for residential use upon completion of the flood control channel. In addition, a major portion of the site includes Class I and II capability soils, considered prime agricultural land. This land will be lost as residential development of the area occurs. Agriculture has been of great value to the community, both in terms of economic gains and as a means of preserving open space. The loss of agricultural land is irreversible. The proposed residential development in the Southwest Area may encourage property values to rise on adjacent agricultural property, particularly County land in Diamond Valley to the east and land west of Hemet.

The Open Space and Conservation Element recommends a community park of between 30 and 40 acres to serve Hemet and the developments serving the City. The Southwest Area has the potential for development of park facilities concurrent with residential development. Using the standard of 2.5 to 3 acres of open space per 1,000 population, this land use alternative could create a need for 45 to 53 acres of neighborhood parks.

Mitigation Measures

Open space should be valued as an essential complement to urban living and considered within all future development proposals. Development subdivision practices which foster open space and conservation concepts (such as clustering, zero lot lines and coverage incentives) should be encouraged.

Policies should be formulated to encourage participation in the Williamson Act Preservation Program, granting tax relief to owners of agricultural property who agree not to develop their land for a minimum of 10 years. Additional incentives should be provided for agricultural land owners holding less than 100 acres who are not eligible for preservation status and the economic security it provides.

Unavoidable Adverse Impacts

Land Use Alternative No. 7 would reduce the amount of open space in the Southwest Area by approximately 82 percent.

4.7.10 Public Services and Utilities

4.7.10.1 Fire Protection

Development resulting from the No Project Land Use Alternative will impact the City of Hemet Fire Department by requiring additional manpower and equipment. The increased demand on the Department will make it necessary to provide additional stations in the southwest and northwest areas of the City. One station is proposed to be located near the airport industrial area, probably on Stetson Avenue. Another station is proposed to be constructed in the vicinity of Menlo and Sanderson Avenues.* Based on a rate of one firefighter per 1,000 population, the No Project Alternative could necessitate the addition of 18 firefighters in the Southwest Area.

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* Richard Feuerstein, Assistant Fire Chief, City of Hemet Fire Department.

Development in the Southwest Area will increase response times and number of calls. New construction that occurs adjacent to existing development in the City is more easily serviced than more remote areas. Developments that encroach upon the flight paths and those surrounding the airport may be subject to aircraft crashes.

Unavoidable Adverse Impacts

The increased demand will require additional manpower and equipment.

4.7.10.2 Police Protection

Development resulting from the No Project Land Use Alternative No. 7 will impact the City of Hemet Police Department by generating an increased demand for manpower and equipment. At this time, the Police Department has a need for five more officers for traffic enforcement and specialized burglary patrol. The No Project Land Use Alternative could generate a population growth of 17,870 people in the Southwest Area, thus necessitating a minimum of 26 additional officers. (Based on a rate of 1.45 officers per 1,000 persons). Crime prevention and traffic control will become more unmanageable if the present trend continues.

Mitigation Measures

New development should be located adjacent to existing developed areas, rather than in remote fringe areas, to minimize the response time. Adequate street and security design features should be incorporated into all new developments.

Unavoidable Adverse Impacts

The increased demand will require additional manpower and equipment.

4.7.10.3 Schools

The No Project Land Use Alternative would impact the Hemet Unified School District by generating additional students. The school system has no excess capacity; therefore, any new development would require school construction. The 1977-1978 enrollment at Hemet Senior High School exceeded the school's capacity by nearly 80 students. The school system does not have a student generation rate due to the unusual composition of the population of Hemet. Based on the 1975 ratio of 15.4 students per 100 population, this land use alternative

could generate 2,752 additional students. This ratio has remained fairly constant since 1975. Over enrollment is expected to continue at a 3 percent annual growth rate. There are no immediate plans or financing provisions for increasing the capacity of schools in the district. In addition, most of the students generated by residential development in the Southwest Area will be located outside the maximum walking distance to associated schools. Therefore, additional bus service will also be required.

Mitigation Measures

Student generation rates are uncertain at this time. SB 201, relating to builder contributions to the school system, may be a means of purchasing relocatable classrooms and putting them on existing sites. However, the cost may be prohibitive under the developer assessment program.

Unavoidable Adverse Impacts

This Land Use Alternative could generate 2,752 additional students, requiring new school construction.

4.7.10.4 Hospital and Emergency Services

It is expected that this land use alternative will require 63 additional beds at the Hemet Valley Hospital, based on a factor of 3.5 beds per 1,000 people. The hospital is currently operating at near capacity; however, an additional medical-surgical unit of 90 beds is expected to be completed by April of 1979. The new unit will be forced to capacity to accommodate the projected demands created by this alternative.

Mitigation Measures

The new medical-surgical unit will partially mitigate the additional demand created by the project. Three more floors can be added to this structure when a need for the addition is demonstrated.

Unavoidable Adverse Impacts

This alternative will increase demand for hosptial and emergency services.

4.7.10.5 Electricity

Electrical service will be provided to the development proposed by Land Use Alternative No. 7 through extension of the electrical distribution facilities located along the south side of Stetson Avenue. This Land Use Alternative is expected to generate a peak demand of 95,254 kilowatts, based on the following demand rates:

Single-family	10 KW/DU* x 6,600 DU =	66,000
Commercial	7 Watts/Sq.Ft.* x 17,300 Sq.Ft. =	121
Industrial	4 Watts/Sq.Ft.* x 7,283,232 Sq. Ft. =	29,133
TOTAL		95,254

Electrical consumption represents a use of non-renewable natural resource, e.g., low sulfur fuel oil. The use may be considered an irreversible impact from the proposed development. The extension of additional electric service to the Southwest Area may be considered growth-inducing.

The major fuel used in Southern California Edison Company's generating facilities is low sulfur fuel oil. The inventory of low sulfur fuel oil, combined with contractual agreements for delivery and electric customers' conservation effects, is expected to allow Southern California Edison Company to meet peak demand through 1977. Ability of Southern California Edison Company to meet peak demand periods after 1980 is dependent upon plans to proceed with construction of new generating facilities, since total system demand is expected to increase annually.**

Mitigation Measures

Energy conservation measures should be required to minimize the loss of low sulfur fuel oil, a non-renewable natural resource. Southern California Edison Company should be consulted to incorporate energy conservation measures into future development proposals.

Generally, energy conservation measures include application of solar energy for water heating, use of energy-efficient appliances, building insulation, and energy conserving design of common facilities. Refer to Section 4.7.11 regarding energy mitigation measures.

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* Ultrasystems Planning Factors.
** H. E. Ashford, District Manager, Southern California Edison Company.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for electrical distribution lines and service.

4.7.10.6 Gas

The Southern California Gas Company will provide service to the Southwest Area through extension of the gas supply line located in Florida Avenue. The existing supply line system has approximately 20% excess capacity over present requirements, a capacity for 7,000 people.* The No Project Land Use Alternative could generate 17,870 people, thereby exceeding the current capacity of the service system. This land use alternative is expected to consume 84.3×10^6 cubic feet of gas per month, based on the following consumption rates:**

Single-family	9,125 cu.ft./DU/Mon x 6,600	60.2×10^6 cu.ft./Mon
Commercial	3.5 cu.ft./Sq.Ft./Mon x 17,300 Sq.Ft. =	$.06 \times 10^6$ cu.ft./Mon
Industrial	3.3 cu.ft./Sq.Ft./Mon x 7,283,232 Sq.Ft. =	24.0×10^6 cu.ft./Mon
TOTAL		84.3×10^6 cu.ft./Mon

The local distribution systems will require expanding. The timing and location of future reinforcements will depend on the actual growth rate and pattern. As a public utility, the Southern California Gas Company is regulated by the California Public Utilities Commission. They are also affected by actions of federal regulatory agencies. Should these agencies make any policy or rule changes that affect gas supply or conditions under which service is available, gas service would be provided to the area in accordance with the revised rules.

Mitigation Measures

Energy conservation measures should be required to minimize the loss of a valuable, non-renewable natural resource. Consultation should be made with the Southern California Gas Company to implement conservation measures. Possible energy conservation measures include application of solar energy for water heating, use of energy efficient appliances, building insulation and energy conserving design. Refer to Section 4.7.11 regarding energy mitigation measures.

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* R. C. Wright, Distribution Planning Supervisor, Southern Calfornia Gas Company.
** City of Los Angeles, EIR Manual for Private Projects, 1975, updated 1976.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for natural gas and distribution lines.

4.7.10.7 Water

The Eastern Municipal Water District (E.M.W.D.) will provide domestic water to the project through extension of existing service lines in the Southwest Area. The specific capacity of the system could not be quantified without a detailed study, but E.M.W.D. indicated that the distribution system was probably operating near capacity. At present, 75 percent of the water supplied by E.M.W.D. is sold for agricultural use. Domestic use has the primary claim to the imported Colorado River water supply of E.M.W.D. and the Metropolitan Water District of Southern California. In the event of a serious water problem, the Metropolitan Water District of Southern California has a formula for the allocation of the water it imports.*

The transition of the Southwest Area from irrigated agriculture to domestic use will not require appreciably more water than is currently being used.

Water consumption for the No Project Land Use Alternative is estimated to be 42,053,935 gallons per month, based on actual City water use as follows:**

Single-family	6,308 gal/DU/Mon x	6.600 DU =	41,632,800 gal/Mon
Commercial	855 gal/CU/Mon x	9 CU =	7,695 gal/Mon
Industrial	1,088 gal/IU/Mon x	380 IU =	413,440 gal/Mon
TOTAL			42,053,935 gal/Mon

Impacts from the project upon water quality will be due to sewage generated by project residents.*** Reclaimed wastewater is used for irrigation water and percolates through the soil to the groundwater level. Total dissolved solids are not reduced as the water percolates through the soil. Nitrates may be a problem.**** Groundwater quality is monitored, and E.M.W.D. is working with the Regional Water Quality Control Board on a long-term solution to water quality problems.

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* James H. Bunts, Jr., Eastern Municipal Water District.
** Fiscal Impact Analysis of Southwest Area, Ultrasystems, Inc.
*** Kevin Kozad, Eastern Municipal Water District.
**** Ibid.,.

Mitigation Measures

Efforts toward water conservation should be made. Possible measures include:

- Landscape water during early morning hours or during the evening to reduce water loss from evaporation.
- Selection of drought-tolerant plants in landscaping.
- Use of plumbing fixtures which will reduce water loss or consumption.

Unavoidable Adverse Impacts

This alternative will generate an increased demand for domestic water.

4.7.10.8 Sewage

Sewage collection and treatment will be provided to the proposed land uses, through extension of existing City and Eastern Municipal Water District (E.M.W.D.) facilities. The Hemet-San Jacinto Regional Water Reclamation Facility has a present capacity of 5 MGD, leaving an unused capacity of 1.5 MGD. The 21-inch main sewer line in Stetson Avenue has a 3 MGD capacity, leaving an unused capacity of 2.75 MGD. The No Project Land Use Alternative is expected to generate 2.5 MGD, based on the following generation rates:*

Residential	100 gal/person/day x 17,870 people =	1,787,000 gal/day
Commercial	100 gal/1,000 sq.ft./day x 17,300 sq.ft. =	1,730 gal/day
Industrial	100 gal/1,000 sq.ft./day x 7,283,232 sq.ft. =	728,323 gal/day
TOTAL		2,517,053 gal/day

The proposed land use alternative will impact the E.M.W.D./facilities by generating sewage amounts close to the existing system capacities. A sewage treatment plant is planned for the Winchester area to serve the Southwest Area and the southern part of the Valley, although a date is not available for the construction of this plant.

Mitigation Measures

Mitigation measures are closely related to water conservation measures mentioned in the previous section.

Unavoidable Adverse Impacts

The proposed Land Use Alternative will generate sewage amounts close to the existing system capacities.

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* Ultrasystems Planning Factors.

4.7.10.9 Telephone

Telephone service will be available to serve the proposed land uses, through extension of existing distribution lines. The proposed land uses will not cause a significant impact on the plans of the telephone company for providing service to the area, provided that growth occurs in increments.

Mitigation Measures

No mitigation measures are proposed.

Unavoidable Adverse Impacts

The proposed Land Use Alternative will result in increased demand for telephone services.

4.7.10.10 Solid Waste

Refuse collection services will be provided by the City of Hemet. Refuse collection is mandatory at a frequency of two times per week.

On-site generation of solid waste resulting from the No Project Land Use Alternative is estimated to be 190,686 pounds per day or 95 tons, based on the following generation rates:*

Residential 2.5 lb/person/day x 17,870 persons =	44,675	lb/day
Commercial 2 lb/day 100 Sq. Ft. 17,300 Sq. Ft. =	346	lb/day
Industrial 2 lb/day/100 Sq. Ft. 7,283,232 Sq. Ft. =	145,665	lb/day
TOTAL	190,686	lb/day

The two landfill sites serving the Southwest Area will be impacted by the solid waste generated; however, the life of the landfills are projected beyond the year 2000.

Mitigation Measures

Separation of wastes at the source could be encouraged to facilitate resource reclamation and recycling efforts.

Unavoidable Adverse Impacts

This alternative will result in an increased burden upon landfill sites.

4.7.11 Energy

Implementation of the proposed land uses will result in consumption of non-renewable energy resources, both in the short-term and in the long-term.

Short-term impacts include use of non-renewable energy resources during the construction phase of the proposed project. Fossil fuels will be used to operate construction machinery as well as to transport workers to and from the project site. Since construction materials themselves have required the consumption of energy for their production, use of construction materials also represent consumption of energy resources.

Long-term impacts due to project implementation include consumption of gas and electricity for heating, cooking and water heating (see Section regarding Public Services and Utilities). Long-term impacts also include the consumption of gasoline.

The amount of fossil fuels burned for production of electricity to serve the project can be estimated, as can the amount of natural gas burned. Residents of the Southwest Area are estimated to consume 13,090,428 KWH/Mon or 157,090,000 KWH/year. Using the formula below it has been calculated that an estimated 10,794,196 gallons of low sulfur fuel oil is necessary to generate the required electric power.

$$\frac{157{,}090{,}000 \text{ KWH}}{\text{Year}} \times \frac{10{,}387 \text{ BTU}}{} \times \frac{\text{lb.}}{19{,}000 \text{ BTU}} \times \frac{\text{gal.}}{7.956 \text{ lb}}$$

$$= 10{,}794{,}196 \text{ gal/year}$$

Natural gas combustion has been estimated at 84.3×10^6 cubic feet per month.

Mitigation Measures

Energy Conservation. The commercial and industrial buildings in the Southwest Area should be designed for optimum energy-efficiency in accordance with Energy Conservation Standards for New Non-Residential Buildings* adopted

* Energy Conservation Standards for New Non-Residential Buildings. Regulations establishing energy conservation standards for new non-residential buildings, adopted by the State Energy Resources Conservation and Development Commission pursuant to Sections 19878-19878.8 of the Health and Safety Code and Section 25402(a) of the Public Resources Code are contained in California Administrative Code, Title 24, Part 6, Division T20, Chapter 2, Subchapter 4, Article 2, Sections T20-1450 to %20-1550.

The new regulations prescribe energy conservation standards for non-residential buildings in California. Specifically, the regulations include energy saving designs for roof, wall, and floor installations, and also contain lighting, heating and air conditioning, and hot water supply specification standards. The regulations encourage the use of solar and wind power and other non-depleting energy sources. They offer builders the option of utilizing any building design that consumes less energy than the standard design described in the regulations. The regulations will be enforced by local building officials through the permit process.

Energy consumption in non-residential buildings is determined by interior heating and cooling requirements. The major climate influence in the Hemet Area is that of the Continental Air Mass, with the ocean determining the climate no more than 15 percent of the time. Two climates occur within the Hemet Valley area. Cold air basins are formed in the valley, where the project site is located.

The overall climate in the San Jacinto area is defined as semi-arid. Yearly rainfall averages 12.81 inches. On the average nine inches, or seventy percent of the total, falls in the four months, December through March. According to State Climatologist, the average temperature in the area over a period of a year is 62.4^{o}. The average high is nearly 99° in July and the low is 34.5^{o} in January. The prevailing winds are from the southwest and, according to the Riverside County Department of Development, the mean hourly speed is nineteen miles per hour.

The State Energy Resources Conservation and Development Commission has adopted regulations establishing energy conservation standards for new residential buildings. These regulations took effect July 1, 1978, after which no new residential building permits may be issued unless the building design is in compliance with the new standards. The Energy Commission has developed a Residential Energy Conservation Manual to assist designers, builders, building officials and contractors in interpreting and implementing the new standards. Provisions for life cycle cost comparison of electric, natural gas, and solar space and water heating systems are included in the standards.

The Energy Commission has also adopted energy conservation standards covering new appliances. In accordance with these standards, no new appliance

manufactured after the effective dates provided in the standards may be sold in California unless certified by the manufacturer to be in compliance with the new standards. The appliances covered under the standards include gas fired, forced air control furnaces, gas cooking appliances, gas clothes dryers, room and central air conditioners, refrigerators and freezers, and gas hot water heaters.

Unavoidable Adverse Impacts

Implementation of this Land Use Alternative will result in consumption of non-renewable energy resources, both in the short-term and in the long-term.

5.0 FISCAL IMPACT ANALYSIS OF PROPOSED ALTERNATIVES

Nine basic general plan land use configurations (see Table 54) were evaluated using the computerized fiscal impact methodology* developed for the City of Hemet to determine the overall impact on the City's financial posture for the 21-year period 1979-2000. These configurations ranged from a low of 939 dwelling units and 1,112 developed acres to a high of 2,258 dwelling units and 2,436 developed acres. As can be seen from Table 55, all nine configurations are predicted to have a negative fiscal impact on the City from the point-of-view of either cash flow or in terms of today's dollars. Alternative #1 has the "least" negative effect in the sense of smallest deficit over the entire 21-year period--namely, $5.31 million in today's dollars or, equivalently, $252,974 in cost per year. At the other extreme, Alternative #7 has the largest dificit--namely, $15.68 million in today's dollars or, equivalently, $746,889 in cost per year. Actually, on a revenue-to-cost ratio basis Alternative #4 is best, achieving a ratio of 74.9% in today's dollars for both growth strategies.

Table 55 presents an annual comparison of revenue-to-cost ratios for each of the configurations analyzed. In all cases, during the early years of development the configurations more than pay their own way; however, in the long-run, annual revenues are not sufficient to recover annual costs.

Table 56 presents a summary of the cumulative revenues derived on a cash flow basis from each of the nine land use configurations based on consideration of 18 revenue sources expected to be impacted by new development in the City. On a percentage distribution basis, the results below show that revenue from taxes is the largest revenue source to the City, which is primarily attributed to property and sales and use taxes. Revenue from other agencies consisting basically of trailer coach license fees is the second largest source of revenue. In Alternative #7, although there are no revenue from trailer coach fees, the revenue from other agencies is still the second largest revenue source. Other revenue and development oriented changes generally contribute no more than 10-14% each of the total revenues to the City.

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* Land Use Fiscal Impact Methodology for the City of Hemet, prepared by Ultrasystems, Inc., 27 December 1978.

Table 54 Cumulative Development Characteristics for Southwest Hemet General Plan Land Use Alternatives

ALTERNATIVE	DEVELOPMENT PATTERN	POPULATION	DWELLING UNITS			DEVELOPED ACRES						
						RESIDENTIAL						
			NON-MOBILE HOMES	+ MOBILE HOMES	= TOTAL	NON-MOBILE HOMES	+ MOBILE HOMES	= TOTAL	+ COMMERCIAL	+ INDUSTRIAL	= TOTAL ACRES
1	At end of 7 years	2,060	834	278	1,112	159.67	46.33	206.00	2.40	78.00	286.40
	At end of 21 years	9,390	3,803	1,268	5,071	727.67	211.33	939.00	7.00	166.00	1,112.00
2	At end of 7 years (41%)	7,762	3,352	838	4,190	636.33	139.67	776.00	9.00	28.00	813.00
	At end of 21 years	18,780	8,113	2,028	10,141	1,540.00	338.00	1,878.00	22.00	88.00	1,988.00
2	At end of 7 years (75%)	14,022	6,057	1,514	7,571	1,149.67	252.33	1,402.00	16.00	28.00	1,446.00
	At end of 21 years	18,780	8,113	2,028	10,141	1,540.00	338.00	1,878.00	22.00	88.00	1,988.00
3	At end of 7 years	9,115	3,694	1,231	4,925	706.83	205.17	912.00	10.50	78.00	1,000.50
	At end of 21 years	13,320	5,395	1,798	7,193	1,032.33	299.67	1,332.00	15.30	166.00	1,513.30
4	At end of 5 years (34%)	7,582	3,276	819	4,095	621.73	136.50	758.23	8.69	19.16	786.08
	At end of 7 years (49%)	11,080	4,787	1,197	5,984	908.50	199.50	1,108.00	12.70	28.00	1,148.70
	At end of 21 years	22,580	9,755	2,439	12,194	1,851.50	406.50	2,258.00	26.00	88.00	2,372.00
4	At end of 7 years (43%)	9,785	4,229	1,057	5,286	802.83	176.17	979.00	11.20	28.00	1,018.20
	At end of 21 years	22,580	9,754	2,438	12,192	1,851.67	406.33	2,258.00	26.00	88.00	2,372.00
5	At end of 7 years	2,282	888	296	1,184	337.19	49.36	386.55	2.63	34.00	423.18
	At end of 21 years	10,400	4,050	1,350	5,400	1,537.00	225.00	1,762.00	12.00	155.00	1,929.00
6	At end of 7 years	3,362	1,310	436	1,746	416.61	72.62	489.23	3.95	34.00	527.18
	At end of 21 years	15,325	5,968	1,989	7,957	1,899.00	331.00	2,230.00	18.00	155.00	2,403.00
7	At end of 7 years	2,523	1,131	0	1,131	443.52	0	443.52	.44	91.96	535.92
	At end of 21 years	11,467	5,142	0	5,142	2,016.00	0	2,016.00	2.00	418	2436.00

Table 55 Comparison of Cumulative Revenues and Costs by the Year 2000 for Southwest Hemet General Plan Land Use Alternatives

ALTERNATIVE	DEVELOPMENT GROWTH STRATEGY	CASH FLOW BASIS				IN TODAY'S DOLLARS			
		REVENUE*	COST*	REVENUE MINUS COST*	REVENUE TO COST RATIO	REVENUE*	COST*	REVENUE MINUS COST*	REVENUE TO COST RATIO
1	22% in first 7 years and 78% in next 14 years	31.90	50.42	-18.52	0.633	11.80	17.11	- 5.31	0.689
2	41% in first 7 years and 59% in next 14 years	61.99	99.55	-37.56	0.623	24.00	35.10	-11.10	0.684
2	75% in first 7 years and 25% in next 14 years	79.49	119.47	-39.98	0.665	33.41	44.67	-11.26	0.748
3	68% in first 7 years and 32% in next 14 years	56.69	87.82	-31.13	0.646	23.60	32.50	- 8.90	0.726
4	34% in first 5 years, 15% in next 2 years and 51% in last 14 years	83.89	124.17	-40.28	0.676	33.27	44.42	-11.15	0.749
4	43% in first 7 years and 57% in next 14 years	81.48	120.27	-38.79	0.677	31.90	42.61	-10.71	0.749
5	22% in first 7 years and 78% in next 14 years	35.37	68.14	-32.77	0.519	13.00	22.87	- 9.87	0.569
6	22% in first 7 years and 78% in next 14 years	50.68	89.50	-38.82	0.566	18.58	30.03	-11.45	0.619
7	22% in first 7 years and 78% in next 14 years	36.27	86.31	-50.04	0.420	13.30	28.98	-15.68	0.459

* in million dollars

Table 56 Comparison of Annual Revenue-to-Cost Ratios on a Cash Flow Basis for Southwest Hemet General Plan Land Use Alternatives

FISCAL YEAR	ALTERNATIVE:	1	2	2	3	4	4	5	6	7
	GROWTH STRATEGY:	22% first 7 yrs. 78% next 14 yrs.	41% first 7 yrs. 59% next 14 yrs.	75% first 7 yrs. 25% next 14 yrs.	68% first 7 yrs. 32% next 14 yrs.	34% first 5 yrs. 15% next 2 yrs. 51% last 14 yrs.	43% first 7 yrs. 57% next 14 yrs.	22% first 7 yrs. 78% next 14 yrs.	22% first 7 yrs. 78% next 14 yrs.	22% first 7 yrs. 78% next 14 yrs.
78-79		4.95	4.37	4.44	4.43	4.63	4.68	4.71	4.78	4.10
79-80		2.20	2.03	2.16	2.15	2.22	2.24	2.04	2.13	1.69
80-81		1.62	1.53	1.67	1.65	1.70	1.71	1.48	1.56	1.20
81-82		1.35	1.30	1.43	1.41	1.45	1.45	1.22	1.30	0.97
82-83		1.18	1.15	1.28	1.26	1.33	1.29	1.06	1.14	0.84
83-84		1.07	1.05	1.17	1.15	1.20	1.18	0.95	1.02	0.75
84-85		1.05	0.93	0.96	0.96	1.02	1.04	0.94	1.02	0.75
85-86		0.97	0.88	0.91	0.91	0.96	0.98	0.85	0.92	0.67
86-87		0.91	0.83	0.86	0.85	0.91	0.92	0.78	0.84	0.61
87-88		0.85	0.79	0.81	0.80	0.85	0.87	0.72	0.78	0.57
88-89		0.80	0.75	0.77	0.75	0.81	0.82	0.67	0.73	0.53
89-90		0.76	0.71	0.73	0.71	0.77	0.78	0.63	0.69	0.50
90-91		0.72	0.68	0.69	0.68	0.73	0.74	0.60	0.65	0.47
91-92		0.69	0.65	0.66	0.64	0.69	0.70	0.56	0.62	0.45
92-93		0.65	0.62	0.63	0.61	0.66	0.67	0.54	0.59	0.43
93-94		0.62	0.60	0.60	0.58	0.63	0.64	0.51	0.56	0.41
94-95		0.60	0.57	0.57	0.56	0.61	0.62	0.49	0.53	0.39
95-96		0.57	0.55	0.55	0.53	0.58	0.59	0.47	0.51	0.38
96-97		0.55	0.53	0.53	0.51	0.56	0.57	0.45	0.49	0.39
97-98		0.52	0.51	0.51	0.49	0.54	0.55	0.43	0.47	0.35
98-99		0.49	0.48	0.48	0.47	0.51	0.51	0.40	0.44	0.33
RATIO OF TOTALS		0.63	0.62	0.67	0.65	0.68	0.68	0.52	0.57	0.42

Alternative	Growth Strategy	Taxes	Percent of Total Revenue: Revenue From Other Agencies	Other Revenue	Special Development Oriented Charges
1	(22%, 78%)*	45.3	32.7	10.8	11.2
2	(41%, 59%)*	48.8	25.2	12.5	13.5
2	(75%, 25%)*	44.8	30.4	11.7	13.1
3	(68%, 32%)*	44.7	31.5	11.3	12.5
4	(34%, 15%, 51%)**	44.6	31.2	11.6	12.6
4	(43%, 57%)*	44.6	31.3	11.6	12.5
5	(22%, 78%)*	46.6	32.2	10.5	10.7
6	(22%, 78%)*	45.2	33.1	10.7	11.0
7	(22%, 78%)*	58.5	20.9	10.6	10.0

Finally, in comparison to the revenue totals of Table 57, Table 58 presents a summary of the cumulative costs derived on a cash flow basis from each of the nine land use configurations based on consideration of 12 cost sources expected to be impacted by new development in the City. It is important to note that these are recurring or annual costs and capital costs are not included in these totals. This is based on the assumption that any capital facility improvements necessary are paid for directly by the developers

Alternative	Growth Strategy	Percent of Total Costs: General Government	Public Safety	Public Works	Library
1	(22%, 78%)*	1.8	76.0	19.0	3.2
2	(41%, 59%)*	1.8	73.4	20.9	3.8
2	(75%, 25%)*	2.1	73.0	21.1	3.9
3	(68%, 32%)*	2.1	74.2	20.1	3.6
4	(34%, 15%, 51%)**	1.9	73.2	21.1	3.8
4	(43%, 57%)*	1.9	73.3	21.9	3.8
5	(22%, 78%)*	1.4	77.4	18.6	2.6
6	(22%, 78%)*	1.4	76.4	19.2	2.9
7	(22%, 78%)*	1.5	79.9	16.3	2.3

* (in first 7 yrs., in next 14 yrs.)
** (in first 5 yrs., in next 2 yrs., in last 14 yrs.)

Table 57 Comparison of Total Revenues on a Cash Flow Basis for Southwest Hemet General Plan Land Use Alternatives

ANNUAL REVENUES*	ALTERNATIVES: 1	2	2	3	4	4	5	6	7
GROWTH STRATEGY:	22% first 7 yrs. 78% next 14 yrs.	41% first 7 yrs. 59% next 14 yrs.	75% first 7 yrs. 25% next 14 yrs.	68% first 7 yrs. 32% next 14 yrs.	34% first 5 yrs. 15% next 2 yrs. 51% last 14 yrs.	43% first 7 yrs. 57% next 14 yrs.	22% first 7 yrs. 78% next 14 yrs.	22% first 7 yrs. 78% next 14 yrs.	22% first 7 yrs. 78% next 14 yrs.
Taxes									
Property Tax	6.15	10.99	12.16	8.93	13.28	13.03	6.94	9.00	11.48
Sales and Use Tax	6.18	15.47	19.22	13.10	19.54	18.81	7.33	10.85	6.50
Southern California Gas Company	0.72	1.31	1.56	1.19	1.63	1.58	0.74	1.03	1.03
Southern California Edison Company	0.64	1.18	1.38	1.06	1.45	1.41	0.67	0.93	0.94
Cable TV Franchise	0.21	0.52	0.68	0.46	0.66	0.63	0.23	0.33	0.21
Business Licenses	0.17	0.13	0.15	0.21	0.15	0.15	0.14	0.15	0.30
Real Property Transfer Tax	0.37	0.64	0.49	0.37	0.72	0.75	0.44	0.59	0.76
Subtotal	14.45	30.25	35.64	25.32	37.44	36.36	16.49	22.89	21.23
Revenue From Other Agencies									
Motor Vehicle In-Lieu Fees	4.87	11.14	13.57	9.31	14.05	13.58	5.39	7.95	5.94
Gasoline Tax	0.93	2.28	3.01	2.04	2.93	2.79	1.03	1.52	1.13
Trailer Coach Licenses	4.24	1.22	6.26	5.64	7.88	7.92	4.52	6.65	0.00
Cigarette Tax	0.41	1.00	1.31	0.89	1.28	1.23	0.45	0.67	0.50
Subtotal	10.44	15.64	24.15	17.87	26.15	25.52	11.38	16.78	7.58
Other Revenues									
Refuse Collection	1.75	4.32	5.65	3.83	5.54	5.29	1.89	2.79	1.74
Permit and Processing Fees	1.18	2.25	2.14	1.53	2.67	2.69	1.25	1.80	1.49
Fines, Forfeitures and Penalties	0.21	0.51	0.67	0.46	0.66	0.63	0.23	0.34	0.26
Miscellaneous	0.29	0.68	0.85	0.58	0.87	0.83	0.33	0.48	0.35
Subtotal	3.43	7.77	9.31	6.40	9.74	9.44	3.70	5.42	3.84
Special Development Oriented Charges									
Park Fees	0.25	0.48	0.45	0.32	0.57	0.57	0.26	0.39	0.25
Lighting and Landscape District	2.83	6.90	9.03	6.12	8.85	8.45	3.01	4.44	2.87
Development Tax	0.49	0.95	0.91	0.65	1.14	1.14	0.52	0.77	.50
Subtotal	3.57	8.33	10.39	7.10	10.56	10.17	3.80	5.60	3.62
TOTAL	31.90	61.99	79.49	56.69	83.89	81.48	35.37	50.68	36.27

*in millions of dollars

Table 58 Comparison of Total Costs on a Cash Flow Basis for Southwest Hemet General Plan Land Use Alternatives

ANNUAL COSTS*	ALTERNATIVES: 1	2	2	3	4	4	5	6	7
GROWTH STRATEGY:	22% first 7 yrs. 78% next 14 yrs.	41% first 7 yrs. 59% next 14 yrs.	75% first 7 yrs. 25% next 14 yrs.	68% first 7 yrs. 32% next 14 yrs.	34% first 5 yrs. 15% next 2 yrs. 51% last 14 yrs.	43% first 7 yrs. 57% next 14 yrs.	22% first 7 yrs. 78% next 14 yrs.	22% first 7 yrs. 78% next 14 yrs.	22% first 7 yr 78% next 14 yr
General Government	0.93	1.83	2.46	1.84	2.34	2.23	0.93	1.28	1.29
Public Safety									
Police Protection	17.94	32.86	39.04	29.80	40.73	39.51	18.56	25.70	25.89
Fire Protection	18.82	37.04	44.18	32.50	46.13	44.73	31.81	39.63	40.19
Building Regulation	1.14	2.31	2.87	2.10	2.91	2.80	1.92	2.39	2.43
Animal Regulation	0.40	0.90	1.07	0.74	1.13	1.09	0.44	0.65	0.49
Subtotal	38.30	73.11	87.16	65.13	90.90	88.14	52.74	68.37	68.99
Public Works									
Engineering and Administration	0.83	1.69	2.11	1.54	2.13	2.05	1.40	1.74	1.77
Shops and Corporation Yards	0.73	1.52	1.96	1.42	1.93	1.85	1.22	1.52	1.54
Street Maintenance, Cleaning + Lighting	0.28	0.71	0.91	0.59	0.90	0.86	0.59	0.72	0.77
Sewer Transmission Maintenance	1.94	3.81	4.53	3.34	4.74	4.60	3.28	4.09	4.14
Refuse Collection	5.79	13.12	15.65	10.76	16.45	15.95	6.20	9.14	5.83
Subtotal	9.58	20.84	25.17	17.65	26.16	26.31	12.69	17.21	14.05
Library	1.62	3.76	4.68	3.20	4.77	4.59	1.79	2.64	1.97
Parks and Parkways	0	0	0	0	0	0	0	0	0
TOTAL	50.42	99.55	119.47	87.82	124.17	120.27	68.14	89.50	86.31

*in millions of dollars

and thus no costs of this type are incurred by the City. On a percentage distribution basis, the results below show that public safety costs are by far the largests costs to be incurred by the City. This is primarily attributed to costs for police and fire protection. Public works costs generally range from 16-22%, library costs from 2-4% and general government costs from 1-2%. No water costs are incurred by the City because this area is serviced by the Eastern Metropolitan Water District (EMWD).

6.0 IRREVERSIBLE ENVIRONMENTAL IMPACTS

The proposed land use alternatives will result in an intensification of land uses and urbanization of a prime agricultural area. The agricultural value of the land will be physically damaged by grading, excavation, paving and structures. Although open space corridors are likely to be included, the aesthetic appearance of the Southwest Area will be altered by urban development over the next twenty years. It is expected that during construction there will be destruction or temporary dislocation of birds and small mammals which reside in the area, with a subsequent return by adaptive species upon completion of landscaping. Archaeological resources may be disturbed by construction activities.

The natural watercourse and watershed area of Salt Creek will be altered by proposed flood control improvements. However, the natural watercourse has already been altered by farming operations.

The project will result in increased vehicular traffic and congestion. There will be an incremental increase in air pollution as a result of emissions from vehicles, power generation equipment and heating. The increased traffic and urban activity will also result in increased noise levels.

There will also be a permanent commitment to provide additional energy sources, particularly natural gas and electricity, and other community services such as water, sewage, schools, police and fire protection services. The fossil fuels consumed during construction and those which will be consumed during the life of development are irreplaceable. There will be a permanent loss of natural resources for building materials used to construct and furnish the structures.

Land Use Alternatives No. 2, 4, 5, 6 and 7 would intrude residential land uses into the 55 Ldn noise contour and could cause conflict with the Hemet-Ryan Airport operations and will expose a larger population to airport noise sources.

7.0 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Most of the land in the Southwest Area is currently in agricultural use. Much of the land that has already been developed in Hemet was also agricultural land. As urban sprawl continues outward from the City, an increasing amount of productive agricultural land will be lost to urban development. If development does occur as proposed by the land use alternatives, the conversion of this agricultural land to residential, commercial and industrial use will be a long-term commitment to urbanization.

The long-term productivity and enhancement of the environment can best be accomplished through careful planning. Specific land use plans will allow the City to absorb a reasonable share of the expected growth in the Southwest Area and encourage a more desirable pattern and scale of future development than would occur through a short-term practice of no growth management policies. The General Plan provides long-term comprehensive objectives, principles, development policies, standards and plan proposals to assure the enhancement of the area. Growth strategies provide short-term and long-term planning options.

The long-term productivity of the land will be enhanced by proposed improvements to the Salt Creek Channel which will permit development within areas previously restricted to development. Over the long-term growth pressures could result in encroachment on Hemet-Ryan Airport and increased noise exposure to residents in the area.

Short-term use of the Southwest Area for agricultural and open space uses will reserve the land for future land use options. However, lack of long-range planning goals would result in scattered, unintegrated development which may not represent the best use of the land. The proposed land use alternatives provide an opportunity to develop the Southwest Area as an integrated community, guiding development away from environmental hazards and locating a full range of land uses and housing types closely related to each other by circulation and open space systems.

8.0 THE GROWTH INDUCING IMPACT OF THE PROPOSED PROJECT

Implementation of any Land Use Alternative aimed at limiting or controlling growth will have an impact. Land Use Alternative No. 1 would substantially limit growth in the Southwest Area to a population of 9,390. Land Use Alternatives No. 2 and 3 would moderately limit growth in the Southwest Area to a population of 19,890 and 16,040, respectively. Land Use Alternative No. 4 would let market trends govern the rate of growth in the Southwest Area, ultimately reaching a population of 26,540. Land Use Alternatives No. 5 and 6 will moderately limit growth in the Southwest Area to a population of 10,400 and 18,135, respectively. Land Use Alternative No. 7 will limit growth in the Southwest Area to a population of 17,870, based on the existing General Plan. These alternative population capacities are intended to indicate the magnitude, potential locations of growth and patterns of growth that the Southwest Area could accommodate. The land use alternatives are designed to be incremental, through growth strategies, to minimize the growth impact by phasing the ultimate development capacity through the year 2000.

The choice to limit growth in the Southwest Area may only reduce the actual number of people within the City limits, but may not affect the actual amount of growth in the Valley unless development occurs adjacent to existing developed areas. Limiting growth in the Southwest Area may encourage growth in uncorporated County land, unless the distribution of growth that is expected in Hemet is closely linked to County development policies. Development of large tracts of vacant land in the Southwest Area, could induce development to continue spreading into undeveloped areas within the City and County, potentially altering the population composition and quality of life.

The proposed improvements to Salt Creek will open up agricultural land to urban development possibilities by removing the flood hazard. Elimination of restrictions on development within the floodplain (Land Use Alternatives No. 1, 2 and 5) and within the floodway (Land Use Alternatives 3, 4, 6 and 7) will result in a significant growth inducing impact which should be mitigated by planning and growth management policies.

A positive growth-inducing impact could result from Land Use Alternative No. 1, whereby infill and redevelopment of existing developed areas in the City would be encouraged by the limitation on growth in the Southwest Area. The other land use alternatives provide sufficient growth capacities

to induce development in the Southwest Area until the ultimate population is approached.

The proposed land uses and population growth will have a direct effect on demand for public services, utilities and other uses. With the data collected it is apparent that there will be an increase in services required in excess of what is currently required. Extension of service lines into previously unserviced areas is growth inducing. Expansion of service facilities off-site will also provide a stimulus to additional development. As services, public utilities, are extended and road improvements made, surrounding land may increase in assessed valuation, providing an imputus for development.

9.0 REFERENCES

Persons and Organizations Contacted

Organization	Person
City of Hemet Fire Department	Richard A. Feuerstein, Assistant Fire Chief
City of Hemet Police Department	Captain Roger Miller
City of Hemet Public Works Department	David R. Oltman, Assistant Director of Public Works
General Telephone Company of California	R. W. Caldwell Resident Engineer
Hemet Valley Hospital District	Emory J. Cripe, Administrator
Southern California Gas Company	R. C. Wright, Distribution Planning Supervisor
Southern California Edison Company	H. E. Ashford, District Manager
Hemet Unified School District	Paul W. Robinson, Assistant Superintendent
Eastern Municipal Water District	James H. Bunts, Jr., Administrative Engineer Kevin Kozad
Southern California Air Quality Management District, El Monte	Peggy Brunelle John Gins

APPENDIX A

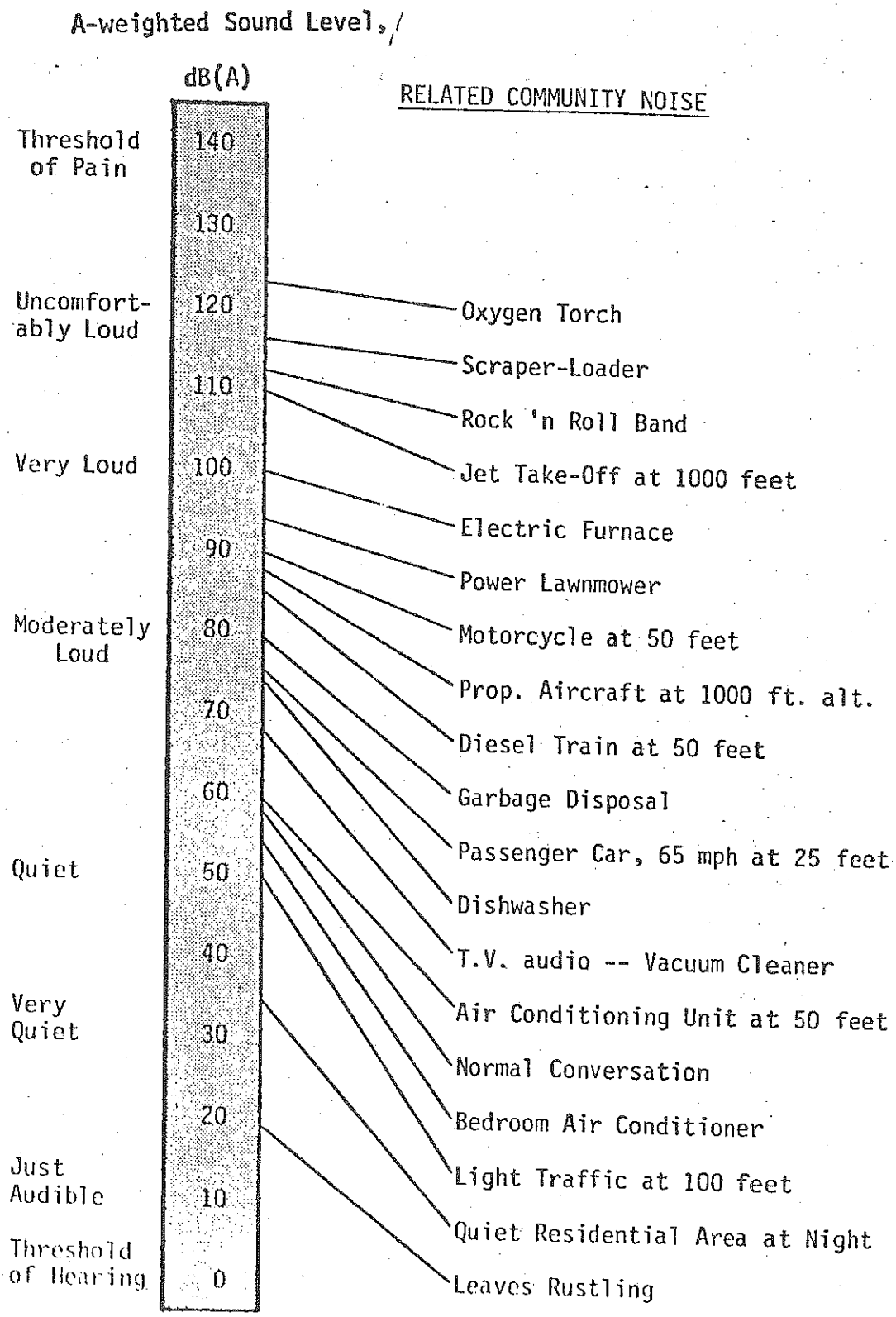
Community Noise Scales

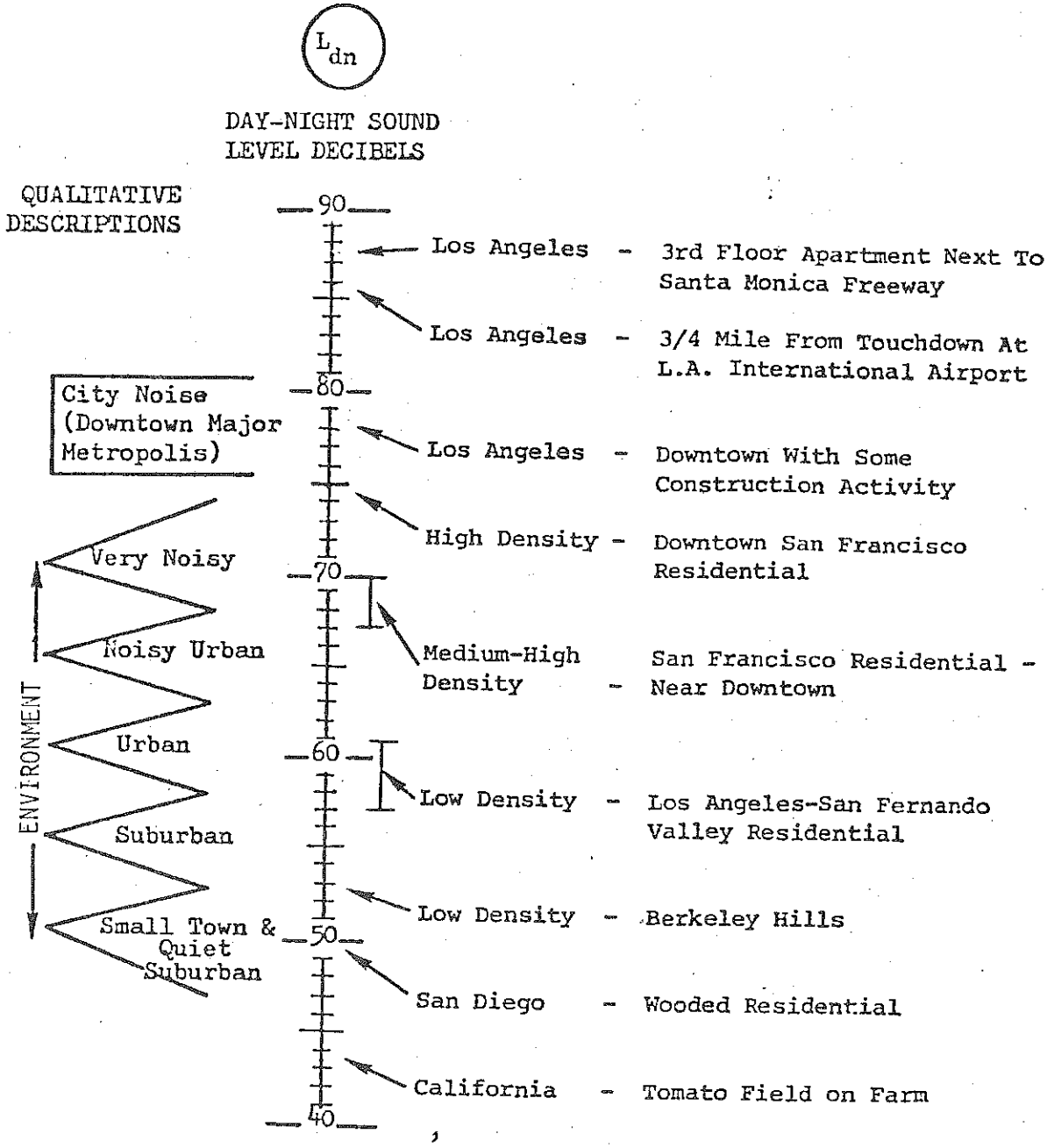
The scale of measurement which is most useful in community noise measurement is the A-weighted sound pressure level, commonly called A-level or dBA. To establish the A-weighted level, the acoustic signal is detected by the microphone and then filtered, heavily weighting those portions of the noise which are most annoying to individuals. The root-mean-square (RMS) value of this weighted signal is then read, utilizing a conventional sound level meter. It is interesting to note that the A-weighted filter characteristic actually amplifies the signal at frequencies between 1000 and 5000 Hz. At frequencies substantially above and below this range, it severly rejects the acoustic signal. This weighting of sound energy corresponds approximately to the relative annoyance produced by noise at various frequencies. The A-weighted sound pressure levels of a few typical sources of noise are listed on the next page.

In order to define noise levels within a given time period (i.e., 1 hour) it is necessary to average the A-weighted noise level. The most useful descriptor used in community noise assessment today is the equivalent continuous (or average) A-weighted sound level, Leq. For each noise period, this represents the continuous sound level which produces the same sound energy as the actual fluctuating sound which occurs during the respective time period. This average sound level can be measured directly by suitable automatic noise monitoring equipment or calculated manually when estimating aircraft and highway traffic noise levels.

It is recognized that a given level of noise may be more or less tolerable, depending on the duration, magnitude, and time period in which noise events are occurring. Various federal, state and local agencies are currently using measures of noise exposure per 24-hour period such as the community noise equivalent level (CNEL) and the day/night level (Ldn) for comparative purposes, the two measures, CNEL and Ldn are essentially equal. The Ldn descriptor is used by the City of Hemet and has been used throughout the noise sections of this report to quantify aircraft and vehicle noise emission levels.

Ldn measure is essentially an average of the A-weighted hourly Leq levels experienced during a 24-hour period. Late eveing and early morning (10:00 pm to 7:00 am) noise levels are more annoying, and therefore, are increased by 10 dBA and then averaged with the daytime noise levels. A comparative descriptor or outdoor Ldn values is provided in Figure 47.


A-weighted Sound Level,
dB(A)
RELATED COMMUNITY NOISE
Threshold of Pain
140
130
Uncomfort-ably Loud
120
110
Very Loud
100
90
Moderately Loud
80
70
60
Quiet
50
40
Very Quiet
30
20
Just Audible
10
Threshold of Hearing
0
Oxygen Torch
Scraper-Loader
Rock 'n Roll Band
Jet Take-Off at 1000 feet
Electric Furnace
Power Lawnmower
Motorcycle at 50 feet
Prop. Aircraft at 1000 ft. alt.
Diesel Train at 50 feet
Garbage Disposal
Passenger Car, 65 mph at 25 feet
Dishwasher
T.V. audio -- Vacuum Cleaner
Air Conditioning Unit at 50 feet
Normal Conversation
Bedroom Air Conditioner
Light Traffic at 100 feet
Quiet Residential Area at Night
Leaves Rustling



Source:
OFFICE OF NOISE CONTROL
CALIFORNIA DEPARTMENT OF HEALTH

Title:
RANGE OF TYPICAL OUTDOOR NOISE ENVIRONMENTS EXPRESSED IN TERMS OF DAY/NIGHT SOUND LEVEL (L_{dn}), dB

47

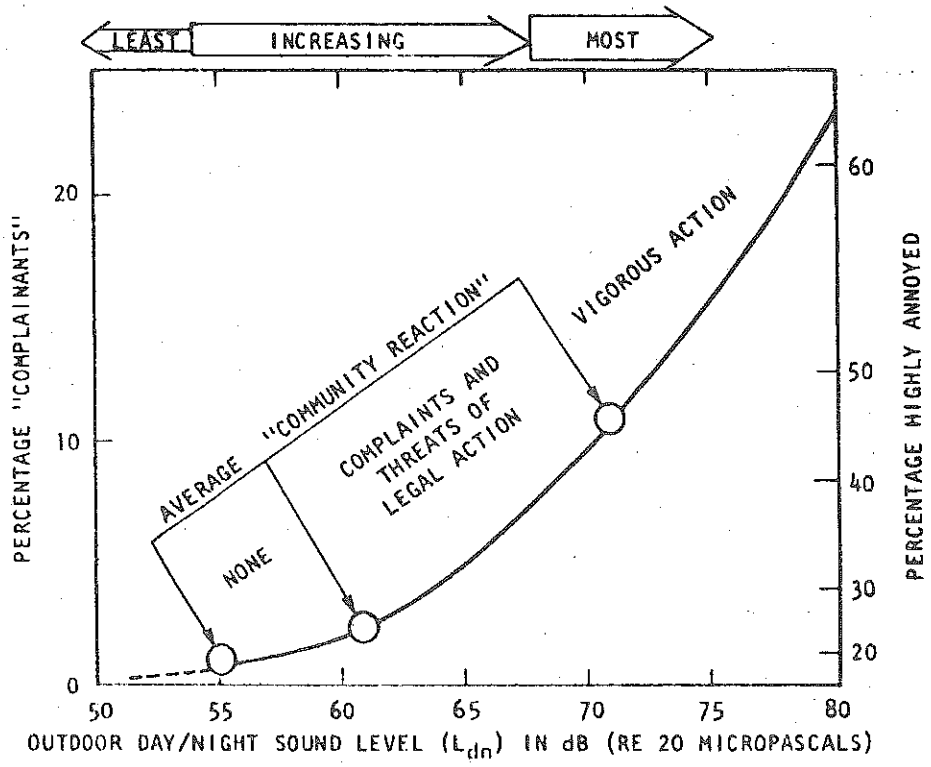
RESPONSE TO VARIOUS COMMUNITY NOISE LEVELS

Groups of people may respond differently to noise depending upon such factors as:

- Age
- Previous exposure
- Socio-economic status, and
- Other social effects.

As a whole, for residential areas, the average response of groups of people can be related to cumulative measures of noise exposures such as L_{eq} and L_{dn}. The following diagram presents the measured response of people as a function of outdoor Day/Night Average Sound Level, L_{dn}. This response is due to a combination of factors dealing with sleep, communications; i.e., speech/hearing, telephone, radio and television, and the desire for a tranquil sound environment:

SUMMARY OF RELATIONSHIP BETWEEN DAY/NIGHT SOUND LEVEL AND ANNOYANCE *



* SOURCE: Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, 550/9-74-004, U.S. Environmental Protection Agency, March 1974.

BACKGROUND DATA
FOR
HEMET - RYAN AIRPORT NOISE CONTOURS

A. Input Data

The operations data for Hemet-Ryan Airport were obtained from the Department of Airports, County of Riverside*. The operational data were for the year 1986 and included General Aviation Aircraft, Gliden Tow Aircraft, and Fire Bomber Aircraft. The projected operations for the year 1986 were 100,000 total annual operations. A breakdown of these operations by aircraft type is shown in Table 59.

Aircraft take-off and land to the southwest 97% of the time. The northeast runway is used 3% of the time. Fire Bomber aircraft fly 98% of their missions between 7:00 AM to 10:00 PM and 2% between 10:00 PM to 7:00 AM. Other aircraft use the airport at night 5% of the time with most (95%) of their flights occurring between 7:00 AM and 10:00 PM.

The flight paths used to describe Hemet-Ryan Airport are described in Table 60. Aircraft utilization by runway, operation and flight track are presented in Table 61.

Standard takeoff and approach profiles were used for general aviation aircraft and are shown in Tables 62 and 63. Takeoff profiles for firebomber aircraft are presented in Table 64. Firebomber approach profiles were modeled using a 3° glide slopes.

Standard takeoff and approach profiles were used for general aviation aircraft. Takeoff profiles for firebomber aircraft are presented in Table 64. Firebomber approach profiles were modeled using a 3° glide slope.

B. Noise Data

Noise data for all aircraft using Hemet-Ryan Airport were readily available from the literature except for the modified C-119 Firebomber aircraft. This aircraft has been modified by the addition of a jet engine mounted on top of the fuselage and is used during takeoff operations but not landing operations. Standard noise curves were used for the C-119 approach noise. The type of jet engine used on the C-119J is not common but was used on the Navy's Neptune (P2)

* Letter report July 10, 1978 from Airports Director to Ultrasystems, Inc.

aircraft. A similar engine is on the Navy's S-3 aircraft. By comparing the noise curves for the C-119, S-3 and P-2 and correcting for the fact that the C-119J uses only one jet engine in addition to the propeller engines, a noise curve for the C-119J was derived. Table 65 shows a comparison of C-119 and C-119J noise for takeoff.

C. Relative Contribution of Each Aircraft Type

Because the Firebombers only use the airport during emergencies, the contours generated do not represent an "average" day even though they are based on the average operation per day. To single out and identify the noise contribution of the Firebomber aircraft, a single point near the end of runway 5R was isolated and individual aircraft contributions were singled out. The special point was 1,500 feet southwest, along the centerline of the runway and 500 feet north of the centerline of the runway. The contour value at this point is 64 L_{dn}. Table 66 shows the L_{dn} contribution from the various aircraft types. Table 66 clearly shows that if the firebombers were not considered, the L_{dn} would be 59 dB instead of 64 dB. In reality, most days do not have firebomber activity while on those days that do, the L_{dn} is considerably higher than the annual contours shown.

TABLE 59

ANNUAL OPERATIONS BY AIRCRAFT TYPE

General Aviation Operations (less glider tows)		
Single Engine Propeller	62,400	
Two Engine Propeller	14,040	
Two Engine Business Jet	1,560	
		78,000
Glide Tow Aircraft		
(150 hp single engine, propeller)		18,000
Fire Bomber Aircraft		
S-2	2,400	
C-119J.	800	
DC-4/6/7, B-17.	800	
		4,000
TOTAL		100,000

TABLE 60

FLIGHT PATHS AT HEMET - RYAN AIRPORT FOR USE IN DESCRIBING NOISE CONTOURS

Flight Path #	Description
1	Runway 23L. Take Off. Start Left Turn 8,000' from Break Release. Radius of Turn 4,000'
2	Runway 23L. Take Off. Straight Out - No Turns.
3	Runway 23L. Take Off. Start Left Turn 5,500' from Break Release. Radius of Turn 1,500'
4	Runway 23R. Take Off. Start Right Turn 4,800' from Break Release. Radius of Turn 2,500'
5	Runway 5R. Take Off. Start Right Turn 7,300' from Break Release. Radius of Turn 1,500'
6	Runway 5R. Take Off. Start Right Turn 8,300' from Break Release. Radius of Turn 3,000'
7	Runway 5R. Landing. Straight In.
8	Runway 23R. Landing. Start Right Turn 2,800' from end of 23R. Radius of Turn 1,500'
9	Runway 5R. Landing. Start Right Turn 1,200' from end of 5R. Radius of Turn 1,500'
10	Runway 23L. Landing. Start Right Turn 2,000' from end of Runway 23L. Radius of Turn 1,500'
11	Runway 23L. Landing. Start Left Turn 3,000' from end of Runway 23L. Radius of Turn 1,500'

TABLE 61

ANNUAL OPERATIONS BY FLIGHT TRACK
AND AIRCRAFT TYPES

Path	Oper.	Propeller Single Eng. less Than 190 hp		Propeller Single Eng. 180 hp or Greater		Propeller Twin Engine <12,500 lbs.		Turbojet Business <12,500 lbs.		Fire Bomber S-2		Fire Bomber C-119J		Fire Bomber DC-4/6/, B-17		TOTAL
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	
1	*	-	-	-	-	-	-	-	-	570	12	190	4	190	4	970
2	"	10,063	530	4,313	227	3,234	170	359	19	570	12	190	4	190	4	19,885
3	"	10,063	530	4,313	227	3,234	170	359	19	-	-	-	-	-	-	18,915
4	"	9,000	-	-	-	-	-	-	-	-	-	-	-	-	-	9,000
5	"	622	33	266	14	200	12	22	1	-	-	-	-	-	-	1,170
6	"	-	-	-	-	-	-	-	-	34	2	11	1	11	1	60
7	Land	-	-	-	-	-	-	-	-	17	1	6	0.5	6	0.5	31
8	"	9,000	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000
9	"	622	33	266	14	200	12	22	1	17	1	6	0.5	6	0.5	1,200
10	"	-	-	-	-	-	-	-	-	1,141	23	-	-	-	-	1,164
11	"	20,125	1,059	8,625	454	6,469	340	719	38	-	-	380	.8	380	.8	38,605
TOTAL		59,495	2,185	17,783	936	13,337	704	1,481	78	2,349	61	783	18	783	18	100,000

* Take off

TABLE 62

TAKE OFF NOISE CURVES

Distance to Aircraft (feet)	SEL, dB						
	One Engine* Prop < 180 hp	One Engine* Prop > 180 hp	Two* Engine Prop < 12,500 lbs	Business* Jet (Cessna)	S-2 Fire Bomber	C-119J	DC-4/6/7, B-17
200	90.3	95.0	93.3	97.2	103.6	114.1	106.6
400	87.1	92.0	90.1	93.7	100.2	110.3	103.2
800	83.7	88.0	86.7	89.9	96.5	106.1	99.5
1,600	80.0	84.0	83.0	85.5	92.4	101.3	95.4
3,150	75.9	78.0	78.9	80.4	87.9	96.1	90.9
6,300	71.1	72.0	74.1	74.2	82.9	90.4	85.9
12,500	65.2	67.0	68.2	66.5	76.9	83.5	79.9
25,000	57.7	60.0	60.7	56.9	69.6	74.9	72.6

* Source: Sound Exposure Level Versus Distance Curves for Civil Aircraft, Bishop, Mills, Beckman, 1974.

TABLE 63

APPROACH NOISE CURVES

Distance to Aircraft (feet)	SEL, dB						
	One Engine* Prop < 180 hp	One Engine* Prop > 180 hp	Two* Engine Prop < 12,500 lbs	Business Jet (Cessna)	S-2 Fire Bomber	C-119J	DC-4/6/7, B-17
200	83.9	92.0	86.9	86.9	93.4	102.4	96.4
400	80.4	87.0	83.4	83.2	90.1	99.2	93.1
800	76.7	81.0	79.7	79.2	86.6	95.8	89.6
1,600	72.7	76.0	75.7	74.7	82.8	92.2	85.8
3,150	68.2	70.0	71.2	69.7	78.4	88.2	81.4
6,300	63.3	64.0	66.3	63.9	73.5	83.5	76.5
12,500	57.6	58.0	60.6	57.1	67.7	78.0	70.7
25,000	50.6	52.0	53.6	48.6	60.6	71.1	63.6

* Source: Ibid

TABLE 64

TAKE OFF PROFILES
FIRE BOMBER
AIRCRAFT

Distance From Break Release (ft)	Altitude (ft)		
	S-2	C-119J	DC-4/6/7, B-17
0			
500			
1,000			
1,500			
2,000			
2,500			
3,000	25		
3,500	50	10	
4,000	80	20	20
4,500	125	35	55
5,000	170	75	90
5,500	215	115	125
6,000	260	155	160
6,500	305	195	195
7,000	350	235	230
7,500	395	275	265
8,000	440	315	300
8,500	485	355	335
9,000	530	395	370
9,500	575	435	405
10,000	620	475	440
10,500	665	515	475
11,000	710	555	510
11,500	755	595	545
12,000	800	635	580
12,500	845	675	615
13,000	890	715	650
13,500	935	755	685
14,000	980	795	720
14,500	1,025	835	755
15,000	1,070	875	790
20,000	1,520	1,275	1,140

TABLE 65

COMPARISON OF C-119 and C-119J NOISE FOR TAKE OFF OPERATIONS

Distance to Aircraft (Feet)	SEL, dB		Δ dB
	C-119*	C-119J**	
200	111.1	114.1	+3.0
400	107.7	110.3	+2.6
800	104.2	106.1	+1.9
1,600	100.3	101.3	+1.0
3,150	95.8	96.1	+0.3
6,300	90.3	90.4	+0.1
12,500	83.5	83.5	0
25,000	74.9	74.9	0

* Source: Wright Patterson Air Force Base, Medical Research Laboratory
** Source: Derived from C-119, S-3 and P-2 data.

TABLE 66

CONTRIBUTIONS OF VARIOUS AIRCRAFT TYPES TO A POINT WHOSE TOTAL L_{dn} IS 64 dB

Aircraft Type		L_{dn} For Aircraft Type
1 engine prop	180 hp	55.8
1 engine prop	180 hp	53.6
2 engine prop	12,500 lbs	52.2
Business Jet		46.6
S-2 Fire Bomber		53.3
C-119J		61.0
DC-4/6/, B-17		53.6

Highway Traffic Noise Model and Assumptions

Highway Traffic Noise Levels were calculated for the various land use alternatives per applicable roadway segments using current State of the Art Highway Traffic Noise Prediction Methods (FHWA-RD-77-108). The Federal Highway Administration Highway Traffic Noise Prediction Model used in calculating traffic noise emission levels arrives at a predicted noise level through a series of adjustments to a reference sound level per vehicle class; i.e., autos and trucks. The reference level is the Leq or Energy Mean Emission Level. Adjustments are then made to the reference level to account for such variables as traffic flows (per day and nighttime period), speed, percent truck traffic and relative distance. The acoustic environment as determined by the model is then weighted by 10 dBA for nighttime emission levels. Results of the analysis are then specified in terms of Equal Ldn Contour Values (expressed as distance to noise contour value in feet from respective roadway centerline).

Highway traffic noise variables for each land use alternative condition are contained in Tables 67 through 73.

TABLE 67

HIGHWAY TRAFFIC NOISE VARIABLES

(LAND USE ALTERNATIVE 1)

INDEX NO.	ROADWAY SEGMENT	ROAD CLASSIFICATION	AVERAGE DAILY TRAFFIC	% TRUCKS	SPEED
1	Acacia-East of Sanderson	Collector	4,800	1	30
2	Sanderson-South of Acacia	Major	12,200	3	35
3	Stetson-East of Sanderson	Arterial	23,000	1	40
4	Sanderson-Stetson/Harrison	Secondary	19,400	2	40
5	Harrison-East of Warren	Collector	2,500	1	30
6	Warren-South of Harrison	Collector	4,900	7	40
7	Simpson-South of Harrison	Secondary	15,400		40
8	Lyon-South of Stetson	Collector	11,100	1	40
9	Cawston-Stetson-Harrison	Collector	4,500	1	35
10	Simpson-Fisher-Warren	Secondary	3,200	5	35
11	Stetson-Lyon-Palm	Arterial	36,000	1	40

TABLE 68

HIGHWAY TRAFFIC NOISE VARIABLES

(LAND USE ALTERNATIVE 2)

INDEX NO.	ROADWAY SEGMENT	ROAD CLASSIFICATION	AVERAGE DAILY TRAFFIC	% TRUCKS	SPEED
1	Acacia-East of Sanderson	Collector	10,000	1	35
2	Sanderson-Stetson/Acacia	Arterial	25,000	2	35
3	Sanderson-Stetson/Harrison	Arterial	21,000	2	35
4	Stetson-East of Warren	Arterial	15,000	1	35
5	Stetson-West of Sanderson	Arterial	33,700	1	35
6	Stetson-East of Sanderson	Arterial	36,000	1	35
7	Harrison-East of Warren	Collector	3,100	1	30
8	Warren-South of Harrison	Secondary	3,000	12	40
9	Warren-North of Harrison	Secondary	9,700	3	40
10	Simpson-South of Harrison	Secondary	18,900	1	40
11	Lyon-South of Stetson	Collector	6,100	1	40
12	Simpson-Warren/Fisher	Secondary	6,000	3	35
13	Cawston-Stetson/Harrison	Secondary	14,500	1	35
14	Stetson-Lyon/Palm	Arterial	42,000	1	35

TABLE 69

HIGHWAY TRAFFIC NOISE VARIABLES

(LAND USE ALTERNATIVE 3)

INDEX NO.	ROADWAY SEGMENT	ROAD CLASSIFICATION	AVERAGE DAILY TRAFFIC	% TRUCKS	SPEED
1	Acacia-East of Sanderson	Collector	5,700	1	30
2	Sanderson-South of Acacia	Secondary	16,400	2	35
3	Stetson-East of Sanderson	Arterial	28,000	1	40
4	Sanderson-Stetson/Harrison	Arterial	23,500	1	40
5	Harrison-Warren/Sanderson	Secondary	13,100	1	35
6	Harrison-East of Sanderson	Secondary	11,000	1	30
7	Warren-South of Harrison	Collector	7,400	5	40
8	Simpson-South of Harrison	Secondary	16,000	1	40
9	Lyon-South of Stetson	Secondary	17,000	1	40
10	Simpson-Warren/Fisher	Secondary	3,800	4	35
11	Cawston-Stetson/Harrison	Collector	8,000	1	35
12	Stetson-Lyon/Palm	Arterial	33,000	1	35

TABLE 70

HIGHWAY TRAFFIC NOISE VARIABLES

(LAND USE ALTERNATIVE 4)

INDEX NO.	ROADWAY SEGMENT	ROAD CLASSIFICATION	AVERAGE DAILY TRAFFIC	% TRUCKS	SPEED
1	Acacia-East of Sanderson	Collector	7,800	1	35
2	Sanderson-Acacia/Stetson	Arterial	24,900	2	35
3	Sanderson-Stetson/Harrison	Arterial	28,000	1	35
4	Stetson-East of Warren	Arterial	24,600	1	35
5	Stetson-West of Sanderson	Arterial	35,600	1	35
6	Stetson-East of Sanderson	Arterial	45,000	1	35
7	Harrison-Warren/Sanderson	Major	21,300	1	35
8	Harrison-East of Sanderson	Secondary	8,000	1	30
9	Warren-North of Harrison	Secondary	8,300	4	35
10	Warren-South of Harrison	Secondary	8,300	4	40
11	Lyon-South of Stetson	Secondary	20,500	1	35
12	Simpson-South of Harrison	Arterial	32,000	1	40
13	Simpson-Warren/Fisher	Arterial	8,500	2	35
14	Cawston-Stetson/Harrison	Collector	7,000	1	35
15	Stetson-Lyon/Palm	Arterial	51,000	1	35

TABLE 71

HIGHWAY TRAFFIC NOISE VARIABLES

(LAND USE ALTERNATIVE 5)

INDEX NO.	ROADWAY SEGMENT	ROAD CLASSIFICATION	AVERAGE DAILY TRAFFIC	% TRUCKS	SPEED
1	Acacia-East of Sanderson	Collector	5,000	1	30
2	Sanderson-Acacia/Stetson	Secondary	13,400	2	35
3	Stetson-East of Sanderson	Arterial	33,000	1	40
4	Sanderson-Stetson/Harrison	Secondary	19,900	1	40
5	Harrison-East of Warren	Collector	3,000	1	30
6	Warren-South of Harrison	Collector	5,200	7	40
7	Warren-North of Harrison	Collector	5,600	6	40
8	Simpson-South of Harrison	Secondary	15,500	2	40
9	Lyon-South of Stetson	Collector	11,100	1	40
10	Cawston-Stetson-Harrison	Collector	4,000	1	35
11	Simpson-Fisher-Warren	Secondary	3,300	4	35
12	Stetson-Lyon/Palm	Arterial	27,000	1	40

TABLE 72

HIGHWAY TRAFFIC NOISE VARIABLES

(LAND USE ALTERNATIVE 6)

INDEX NO.	ROADWAY SEGMENT	ROAD CLASSIFICATION	AVERAGE DAILY TRAFFIC	% TRUCKS	SPEED
1	Acacia-East of Sanderson	Collector	6,000	1	30
2	Sanderson-Acacia/Stetson	Secondary	17,600	2	35
3	Stetson-East of Sanderson	Arterial	29,000	1	40
4	Sanderson-Stetson/Harrison	Arterial	24,000	1	40
5	Harrison-Warren/Sanderson	Secondary	13,600	1	35
6	Harrison-East of Sanderson	Secondary	11,300	1	30
7	Warren-North of Harrison	Collector	8,100	4	40
8	Warren-South of Harrison	Collector	7,700	4	40
9	Simpson-South of Harrison	Secondary	16,200	2	40
10	Lyon-South of Stetson	Secondary	17,400	1	40
11	Simpson-Warren/Fisher	Secondary	3,900	4	35
12	Cawston-Stetson/Harrison	Collector	8,400	1	35
13	Stetson-Lyon/Palm	Arterial	34,000	1	35

TABLE 73

HIGHWAY TRAFFIC NOISE VARIABLES
(NO PROJECT ALTERNATIVE)

INDEX NO.	ROADWAY SEGMENT	ROAD CLASSIFICATION	AVERAGE DAILY TRAFFIC	& TRUCKS	SPEED
1	Acacia-East of Sanderson	Collector	6,500	1	35
2	Sanderson-Acacia/Stetson	Arterial	25,550	2	35
3	Sanderson-Stetson/Harrison	Secondary	12,400	2	35
4	Stetson-East of Warren	Arterial	9,000	1	40
5	Stetson-East of Sanderson	Arterial	40,000	1	35
6	Harrison-Warren/Sanderson	Collector	2,200	1	40
7	Harrison-East of Sanderson	Collector	2,500	1	40
8	Warren-North of Harrison	Collector	3,600	12	40
9	Warren-South of Harrison	Collector	3,600	12	40
10	Lyon-South of Stetson	Secondary	5,900	1	35
11	Simpson-South of Harrison	Secondary	8,300	3	40
12	Simpson-Warren/Fisher	Collector	6,900	3	40
13	Stetson-Lyon/Palm	Arterial	34,000	1	35

APPENDIX B

COMMENTS AND RESPONSE TO COMMENTS

During the 45 day public review period, numerous comments on the Draft EIR were received from various State and Local Agencies and concerned citizens. In the following Addendum, each comment is summarized and the response to that comment immediately follows. The full text of each commenting letter, and oral comments received during public hearings are included at the end of this Addendum.

I. Comments received from State Agencies.

A. Department of Transportation

1. Comment Summary:

The report does not indicate that Route 79 (Winchester Road) connects the Temecula area with Route 74 just west of the Southwest Area.

Response:

Traffic studies indicated that significant impacts would not occur on Route 79.

2. Comment Summary:

The report proposes to provide master-planned roadways as mitigation measures, but does not propose mitigation measures for state highways.

Response:

Specific mitigation measures that require improvements to state highways are under the jurisdiction of CALTRANS and could not be implemented by the Lead Agency (City). The master-planned improvements on local streets are intended to provide mitigations for portions of the state highway system that would be significantly impacted (Florida Avenue). Mitigation measures of the type suggested in the EIR can be implemented by the City. See Comment I,A,3 from the Department of Transportation, following.

3. Comment Summary:

It should be noted that improvements that will significantly increase the capacities of Routes 74 and 79 in this area are not anticipated in the foreseeable future.

Response:

The comment is noted and included as part of the Final EIR.

B. California Regional Water Quality Control Board - Santa Ana Region

1. Comment Summary:

Is the sewage treatment capacity cited in the EIR available for this project?

Response:

Yes. The sewage treatment capacity is available, within the service area of the plant, on a first-come-first-served basis. The actual proportion of the existing capacity available to this development is not quantifiable since it is totally dependant on the timing of requests for service and the amount of future development not only in Hemet, but in San Jacinto and unincorporated areas served by the treatment plant.

2. Comment Summary:

Is the proposed development scheduled for the Southwest Area compatable with plans for the future Winchester Treatment Plant?

Response:

Yes. Plans for the Winchester Treatment Plant include the Southwest Area in its service area and assume urbanization of the area.

3. Comment Summary:

In general, the existance and availability of sewage treatment capacity may be a constraint on this development.

Response:

The Eastern Municipal Water District has implemented development fees to help finance new facilities and believe they will be able to provide service to new development with little or no delay. Plans exist for adequate treatment capacity.

C. Department of Conservation

1. Comment Summary:

The report emphasizes the agricultural productivity of the site but fails to give any specific data as to the types of crops grown, production yields, or importance of the agricultural production to the City or the County.

Response:

The principal crops grown in the Southwest Area are alfalfa and barley. Yield information is not available for individual fields, but the predominant soils in the area yield an average of 7-8 tons of alfalfa hay per acre and, one ton of barley per acre. Yields are probably lower on a significant portion of the area because of flood damage during the winter months.

Based on a price of $68.00 per ton for alfalfa hay and $96.00 per ton for barley, and assuming 1,000 acres of each, the total crop value would equal $572,000 per year.

The importance of this agricultural production is difficult to assess due to the vague wording of the comment and the lack of specific data or the subjective nature of many measures of importance.

On the basis of economic importance, much of the estimated $572,000 generated by crop production in the area is spent outside the City. The crops grown are not labor intensive and therefore do not provide a direct support for a large number of people. Much of the machinery and agricultural chemicals are purchased outside the City and harvesting, particularly of grains is often done by outside contractors.

On the basis of acreage alone, these agricultural lands are practically all that remain in the City but are an extremely small percentage of agricultural acreage in Riverside County.

Agricultural lands have a definite, but unquantifiable, importance as open space. This open space importance is tempered where agriculture is adjacent to urban areas because the noise, odors and dust associated with crop production annoy many people to a degree that outweighs its open space value.

2. Comment Summary:

To further emphasize the importance of the agricultural potential of this site, a long term economic analysis should be made for the consideration of locating the proposed development on non-productive lands and continuing commercial agricultural production on this site.

Response:

The comment pre-supposes the relative importance and viability of agriculture in the Southwest Area of the City of Hemet. A long term economic analysis that considered locating the proposed development on non-productive land would be beyond the scope of an Environmental Impact Report and would accomplish no purpose since the planning area has no non-productive acreage capable of supporting any of the alternative plans.

3. Comment Summary:

The EIR fails to adequately discuss alternatives to the project.

Response:

The EIR discusses seven alternatives in sufficient detail in the opinion of the lead agency.

4. Comment Summary:

The no-project alternative should compare existing land use to the proposed land use plan rather than the existing General Plan.

Response:

The EIR, in considering the no project alternative, choose a realistic approach to the land use consequences of failure to

implement one of the six alternative plans. Most of the land in the planning area is owned by absentee corporations and virtually all of the land has development proposals on file or contemplated. Assessing the project compared to existing land use would be to provide a ficticious analysis.

5. Comment Summary:

This project could set a precedent for other prime agricultural land and contracted parcels.

Response:

It is possible that this project could encourage development outside the planning area, however, the amount of developable land in the area is expected to absorb development pressure for the foreseeable future.

6. Comment Summary:

The alternatives to the proposed projects fail to give consideration to the location of the proposed land uses on suitable non-prime lands.

Response:

All of the suitable non-prime lands in the planning area are considered in each alternative.

7. Comment Summary:

The project conflicts with a stated policy of the Federal Environmental Protection Agency for the preservation on prime farmland. A discussion of this policy as related to this project should be included in the EIR.

Response:

While the Environmental Protection Agency has a policy for the preservation of prime agricultural land, the Agency provides no means of implementing that policy or of insuring the viability of agriculture in urbanizing areas.

D. Department of Fish and Game

1. Comment Summary:

If the land use alternatives are combined into a growth strategy we recommend that a new EIR be prepared for the specific land use plan.

Response:

The lead Agency does not believe a new EIR is required for a particular growth strategy since each alternative assessed in the EIR reflects the cumulative impacts of any lower population alternative.

2. Comment Summary:

Sponsors of projects resulting in alteration within the high water mark of any streambed should be informed that they must notify the Department of Fish and Game pursuant to Section 1601-03 of the Fish and Game Code. This notification and subsequent agreement must be accomplished prior to commencement of the streambed alteration.

Response:

The comment is noted and incorporated as part of the Final EIR.

II. Comments Received from the County of Riverside

A. Planning Department

1. Comment Summary:

Under Section 3.1.2 on page 18, paragraph two, the first sentence should be changed to read: The exclusion of small lot subdivisions . . . . . from the area surrounding the Domenigoni Mountains is essential to sustaining the agricultural sector of the Diamond Valley area.

Response:

The comment is accepted and incorporated into the Text.

2. Comment Summary:

The economic value of agriculture in the area also needs to be discussed in relation to non-agricultural uses proposed in the plan.

Response:

See response to comment I, C, 1.

3. Comment Summary:

Possible impacts of residential development on remaining agricultural lands need to be discussed.

Response:

Before the passage of Proposition 13, the major impact of urbanization on agriculture was the increase in property taxes resulting from re-valuation of agricultural land to higher value residential land. Unless there is a change in ownership, Proposition 13 limits an increase in assessed valuation to two percent per year, and provides some tax increase protection to agriculture. The remaining impacts are those secondary impacts resulting from urban encroachment on agricultural lands; i.e., reduced farm labor pool, reduced availability of farm chemicals and machinery in the immediate vicinity, and increased complaints from urban dwellers because of the noise, odors and dust associated with agricultural operations. Another major secondary impact results from the rise in true market value of the land that often makes it more profitable to sell agricultural land for urban development than to continue farming. This process is largely complete in the Southwest Area where most of the land is under the ownership of individuals and corporations interested in development rather than agriculture. See response to comment I, C, 1.

4. Comment Summary:

The Draft EIR states (on page 66) that "by limiting growth capacity of the Southwest Area, redevelopment and infill of existing developed areas in Hemet will be encouraged". It should also be pointed out that barring growth in the area will more likely encourage growth in the County areas surrounding the City.

Response:

The comment is partially correct in that growth restrictions in the Southwest Area will encourage some growth in the County area as well as redevelopment and infill in the developed areas of Hemet. The question of whether growth restrictions will more likely encourage growth in County areas surrounding the City is largely dependent on future County policy regarding annexation of developing areas contigious to the City.

The County has numerous tools available to encourage annexation such as: Zoning, General Plan, the Local Agency Formation Commission, and the County's attitude toward urbanization of unincorporated areas surrounding the City will have more influence on such development than growth control in the Southwest Area.

5. Comment Summary:

The list of Interim Policies for Hemet-San Jacinto Area Plan should be revised to reflect the latest version as adopted by the County Planning Commission.

Response:

The list has been revised in the Final EIR.

6. Comment Summary:

The EIR should be revised to reflect the version of the Hemet-Ryan Airport Land Use Plan adopted by the County Planning Commission March 14, 1979.

Response:

The revisions have been made in the text of the Final EIR.

7. Comment Summary:

Note that aircraft noise at Hemet-Ryan Airport is predicted for 1986, and not merely an "annual average" as the Draft EIR states (on page 77).

Response:

The correction has been made in the text of the Final EIR.

8. Comment Summary:

The proposed construction of the Salt Creek Channel (if and when it is built) will have a definite impact on growth in the study area as well as the surrounding County areas. This should be recognized in the EIR as an unavoidable impact.

Response:

While the alternatives in the EIR that allow for a population capacity that includes channelization reflect the impacts of growth resulting from construction of the channel, the comment is correct. Population growth resulting from channelization would be an unavoidable impact.

III. Comments Received from Local Agencies

A. Hemet Unified School District

1. Comment Summary:

All of the following comments refer to Section 3.10.3, page 53 of the EIR.

The information which we provided you stipulated that under the enrollment column it should read 1977-78. Your column reads 1977-79.

The area you have under question also includes Whittier School. I would recommend that you include that school from the data which I provided you.

In addition, there was a note at the bottom of that sheet indicating that when elementary schools are at 97% capacity, for all practical purposes, they are filled. This was left off. It would be our recommendation that this be included.

Response:

The requested changes and additions have been made to the text of the Final EIR.

B. Eastern Municipal Water District

1. Comment Summary:

Page 56 - Figure 22 Wentworth and Thornton are mispelled and Thornton should be Simpson.

Response:

The appropriate changes have been made throughout the text of the Final EIR.

2. Comment Summary:

On page 57, Section 3.10.2.3, we suggest the following wording instead of that in the report:

The source of water supply to the Southwest Area is local groundwater, Colorado River water, and nearby groundwater. The latter two being purveyed by E.M.W.D. through a portion of their system as shown on Figure 23. In Sanderson Avenue, Cawston Avenue, Warren Road, Wentworth, Stetson, Harrison, Simpson, Lyon, and Palm. The Simpson line ties into the Perris Valley system. Imported State Project water will be a future fourth source of water.

Response:

The suggested wording has been substituted in the text by the Final EIR.

3. Comment Summary:

The 15" force main from the District's Cawston Lift Station goes as far north as Menlo and is not near capacity.

Response:

The statement that the force main is near capacity has been corrected in the text by the Final EIR.

4. Comment Summary:

Does "GP" on the top line of page 60, mean gallons per day?

Response:

Yes. This has been clarified in the text of the Final EIR.

5. Comment Summary:

On page 101, Section 4.1.10.71, the fourth sentence should read:

Domestic use has the primary claim to the imported Colorado River water supply of E.M.W.D. and The Metropolitan Water District of Southern California. In the event of a serious water problem, The Metropolitan Water District of Southern California has a formula for the allocation of the water it imports.

The transition of the SW area from irrigated agriculture to domestic use will not require appreciably more water than is currently being used.

Response:

The suggested statement has been substituted in the text in the Final EIR for each alternative.

6. Comment Summary:

The statement on Page 101 that there are no limits on imported water is incorrect.

Response:

The statement has been corrected where it appears in the text of the Final EIR.

7. Comment Summary:

Figure 24 shows lift stations not "treatment facilities" as titled.

Response:

The Figure Title and legend have been corrected in the Final EIR.

C. City of Hemet Planning Commission

1. Comment Summary:

During the public hearing of February 7, 1979 the Planning Commission recommended the following changes to the Draft EIR:

Page 11 - Under Mitigation Measures - should read Engineering soils investigation rather than geologic investigation.

Page 14 - Under Sewage -- presently the sewage plant has a capacity for 9,000 additional homes, therefore, the statement in the EIR should be changed to read at some time in the future . . .

Page 67 - Under Unavoidable Adverse Impacts - the amount of prime agricultural land should be quantified.

Page 91 - Under Mitigation Measures - Kirby Street should be included and addressed.

Response:

The suggested changes have been made in the text of the Final EIR.

D. Riverside County Flood Control and Water Conservation District

NOTE: Although these comments were received over ten days after the 45 day public review period had been closed, it was felt by the lead agency that they should be included due to the importance of flooding in the Southwest Area.

1. Comment Summary:

Under mitigation measures for hydrology impacts (page 11) it is stated that "The Federal Flood Insurance Program will mitigate the flood hazard in the flood plain." This is

misleading, as mitigation of flood hazard will be by physical measures such as elevation of building pads, construction of storm channels and drains, etc. The Federal Flood Program merely required that protection be provided for new developments. This misleading statement recurs throughout the report.

Response:

For clarification, the statement is changed to read: Implementation of the measures required in . . . . . .

2. Comment Summary:

On page 32 it is stated "Constant cultivation of the land in the Salt Creek flood plain has virtually eliminated the natural watercourse." This statement implies past farming operations are responsible for flooding on Salt Creek which is not true. Salt Creek lies in a broad, flat alluvial valley, and even in the natural state it had no well defined channel.

Response:

This statement occurs without further qualification in the corps of Engineers study on Salt Creek and in the Flood Control District's EIR for channelization of Salt Creek. The statement does not imply that farming operations are responsible for flooding, but only that farming operations may have abliterated what natural watercourse existed prior to intensive agriculture in the area.

3. Comment Summary:

Statements on page 32 indicate District ".... facilities have proven to be inadequate as recently as 1969." Actually most of the District facilities referred to were constructed after 1969, and they are fully adequate. However, the real problem is that only a small part of the facilities required to solve the flooding problems in Hemet have been constructed, primarily due to funding constraints.

Response:

The comment is partially correct. The Hemet Channel and the

Stetson Channel are adequate for a 100-year storm for most of their length. However, each channel, west of Cawston Avenue is inadequate to contain runoff from a 100-year storm.

4. Comment Summary:

In the last paragraph on page 32 the sentence concluding "....and 2) ultimate channel improvements", should be rewritten as follows "....and 2) ultimate storm drain improvements in the City of Hemet."

Response:

The correction is noted and made a part of the Final EIR.

5. Comment Summary:

The statement on page 32 that based on Figure 12 ".....90 percent of the Southwest Area is within a 100-year flood plain" does not seem correct. The area shown subject to flooding on Figure 12 appears to be much less than 90 percent. The 90 percent figure is quoted throughout the report.

Response:

The comment is correct. The text has been changed to reflect 60 percent of the area is within the 100-year flood plain.

6. Comment Summary:

The proposed ultimate Salt Creek Channel will not be concrete lined as is stated on pages 163, 209, 300 and 343.

Response:

The comment is correct. The text has been changed to reflect the comment.

7. Comment Summary:

Under discussion of the various alternatives in the "Traffic and Circulation" section, a statement is made that it has "..... been assumed that the proposed circulation system would be developed so that the various roadway segments would be constructed out of the existing floodway, or in such a manner

that access would be maintained should a flood occur." It should be noted that construction of all weather crossings for Salt Creek would be extremely expensive even after channelization. The District's plan for channelization of Salt Creek would only provide low flow "dip crossings."

Response:

All-weather access will be necessary for any new development within the City.

8. Comment Summary:

Referring to Salt Creek, on page 383 it is stated "....the natural watercourse has already been significantly altered by farming activities, resulting if flood hazards for much of the City." This is incorrect as farming operations have had an insignificant impact on Salt Creek. Furthermore, the City of Hemet is located primarily upstream of Salt Creek which has a minimal impact on the developed portions of the City. Only the undeveloped Southwest Area is impacted directly by Salt Creek.

Response:

The text has been changed to read "....the natural watercourse has already been altered by farming operations".

9. Comment Summary:

The EIR does not address the issue of the impacts of increased runoff due to development. The Specific Plan does contain a section on "Flood Plain Management Policies" which does address this issue. The EIR should at least recognize the problem of increased runoff, and cite the management policies in the Specific Plan as mitigating measures.

Response:

The retention of incremental runoff due to development is included as a mitigation measure in the Final EIR.

IV. Written Comments Received From Concerned Citizens

A. McCutchan and Associates, Inc., consultants for Hemco, owners of Seven Hills

1. Comment Summary:

The commentor believes that the unavoidable adverse impacts due to the prohibition of channelization of Salt Creek in alternatives 1, 2, and 5 should be more fully documented. The commentor presents a list of impacts that would result from implementation of these alternatives.

a. Approximately 90% of the Southwest Area is within the 100-year flood plain. Without improvement of the drainage channels, the area will remain subject to flood hazards.

b. Citizen input solicited by the consultants responsible for preparation of the Southwest Area Specific Land Use Plan revealed that perhaps the major concern of the residents of Hemet is the flood hazard, and finding means to prevent flooding.

c. The improvement of the Salt Creek Channel is needed to collect and conduct storm water efficiently, safely and economically to drainage courses where it can be carried away without damaging property, isolating residents, or creating health and safety problems.

d. The Salt Creek Channel improvement is necessary if the Hemet area drainage system is to be constructed, since it furnishes the outlet for the Hemet area system.

e. The Channel would have a significant benefit to the agricultural land because it would prevent crop losses and costly regrading of the land. The elimination of wash-outs, flooded roads and accident potential situations will be a substantial improvement in terms of protection of life and property in the Salt Creek valley.

f. The construction of the Salt Creek Channel will provide the opportunity for development of future parks and recreational facilities such as bike riding and hiking trails within the Channel right-of-way.

g. The City's existing planning and land use controls can guide and regulate the rate of development of land which is removed from flood hazard by construction of the Channel. The potential population growth can be accomplished over many years, and the growth accommodated in an orderly fashion with minimum adverse effects.

h. The true cost of doing nothing about the flood hazard could be quite expensive. The damage caused by previous storms was considerable, although accurate dollar figures are not available. The damage potential of future storms in terms of cost is even greater today because more development value is exposed to the flood damage risk.

Response:

a. The comment should read "Approximately 60% ---". The remainder of the comment is correct and is incorporated by this Addendum as part of the Final EIR.

b. This appears to be a comment on the Southwest Area Plan development procedures rather than on the EIR. The comment has no bearing on the impact analysis.

c. The need for channelization of Salt Creek is not an unavoidable adverse impact but is included by this Addendum as a mitigation measure with the stipulation that its implementation would not achieve the objectives of Alternatives 1, 2, and 5 i.e.: Growth control by use of environmental constraints.

d. The comment is correct and is incorporated by this Addendum as a mitigation measure with the same stiputation as in IV,A,1,c, above.

e-f. These two comments are reasons to build a channel, as proposed in alternatives 3, 4 and 6. The comments are not unavoidable adverse impacts of not building the channel.

g. The City's existing planning and land use controls have been found inadequate by the City. That determination has led to the project that is the subject of the EIR.

h. One of the objectives of Alternatives 1, 2, and 5, is to limit damage potential by prohibiting development in the floodway.

B. Patricia D. Mc Sweeny, landowner in the Southwest Area

1. Comment Summary:

Mandating two and one-half acre lots will lead to small farming or livestock operations that will result in adverse impacts on neighboring residential areas. These impacts could include noise, odors, dust and heavy truck traffic.

Response:

The comment is correct and is incorporated as a part of the Final EIR with this Addendum.

2. Comment Summary:

The noise requirements for residential development in the airport influenced area are too stringent.

Response:

The following mitigation measure is added as part of the Final EIR:

A Special Study area should be established around the Airport to insure compatable uses without rigid restrictions on land uses and densities.

This Special Study Area would allow the City to review all development parcels in the airport area and exercise some flexibility in designated land uses.

C. Sierra Dawn Estates Homeowners Association Inc.

1. Comment Summary:

The commentor objects to the provision for two and one-half acre lots in the Airport influenced area.

Response:

This comment seems to be directed to the Southwest Area Plan rather than to the EIR. See response to comment IV,B,1 and IV,B,2.

State of California

Business and Transportation Agency

Memorandum

To : Ms. Ann Barkley, DOTP

Attention Mr. A. Lichtman
A-95 Coordinator

Date: March 6, 1979

File : SCH 79020595

Telephone: ATSS ( )
( )

From : DEPARTMENT OF TRANSPORTATION
Mr. J. E. Peddy, District 08

Subject: DEIR Land Use Plan, SW Hemet

We have reviewed the above document and offer the following comments:

The report recognizes that Florida Avenue (State Highway Route 74) serves as the major east-west route to and from the Hemet area. The report does not indicate that Route 79 (Winchester Road) connects the Temecula area with Route 74 just west of this area.

The report proposes to provide master-planned roadways as mitigation measures for the local roads in the study area. The report does not, however, suggest mitigation measures for the state highways in the study area.

It should be noted that improvements that will significantly increase the capacities of Routes 74 and 79 in this area are not anticipated in the foreseeable future.

J. E. PEDDY
District Director

S. Lisiewicz

By
S. Lisiewicz
Deputy District Director
Transportation Planning

HJS:ob

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RIVERSIDE, CALIFORNIA 92506
PHONE: (714) 684-9330

February 28, 1979

RECEIVED
MAR 1 1979
CITY MANAGER'S OFFICE

Mr. L. Frank Goodson
Projects Corodinator
Resources Agency
Resources Building, 13th Floor

City of Hemet
450 East Latham Avenue
Hemet, CA 92343

Gentlemen:

SCH No. 79020595: Draft EIR-Land Use Plan for the Southwest Area, Hemet, Riverside County

We have reviewed this draft EIR and offer the following comments:

1. Discussions of sewage treatment capacity, such as on page 57, suggest that there is capacity currently available. Is that capacity available for this project?

2. Discussions of the impacts of the various alterations refer to construction of a sewage treatment plant in Winchester. Is the proposed development scheduled for the Southwest Area compatible with plans for that plant?

In general, the existance and availability of sewage treatment capacity may be a constraint on this development. These questions should be addressed in the final EIR.

Sincerely,

Original Signed By

Gordon K. Anderson
Environmental Specialist

cc: State Water Resources Control Board
Division of Planning and Research
Environmental Analysis Unit

GKA/cf

RECEIVED
MAR 13 REC'D
ENVIRONMENTAL STUDIES DIV

Memorandum

To : L. Frank Goodson
Projects Coordinator
The Resources Agency

Marion Gass
City of Hemet
450 East Latham Avenue
Hemet, CA 92343

Date : March 6, 1979

Subject: SCH 79020595

Telephone: ATSS ( ) 5-8733
( )

Land Use Plan "The Southwest Area"
Hemet, CA

From : Department of Conservation — Special Services for Resource Protection

The Draft EIR for The Specific Land Use Plan for the Southwest Area of Hemet, CA., has been reviewed and our comments are as follows.

1. The report emphasizes the agricultural productivity of the site but fails to give any specific data as to the types of crops grown, production yields, or importance of the agricultural production to the city or the county.

2. To further emphasize the importance of the agricultural potential of this site, a long term economic analysis should be made for the consideration of locating the proposed development on non productive lands and continuing commercial agricultural production on this site.

3. This EIR fails to adequately discuss alternatives to the project and does not adequately discuss the no project alternative. The no project alternative should compare existing land use to the proposed land use plan. When the EIR compares the existing General Plan to the proposed plan it should be so entitled. It appears that the agricultural potential of the Southwest Area is of importance to the future agricultural productivity in the County, especially when this project could set a precedent for other prime agricultural land and contracted parcels. The alternatives to the proposed projects fail to give consideration to locating the proposed land uses on suitable nonprime lands. This could show that man can meet short term goals and have long term advantages (agriculture and this proposal). It could show that flooding is a common occurrence on prime agricultural land and less likely to occur on the rolling nonprime lands. It could also show that subsidence due to earthquake shaking would not be a problem for founding structures due to the proximity of the San Jacinto Fault Zone and the deep soils which underlay the site.

4. The project conflicts with a stated policy of the Federal Environmental Protection Agency for the preservation of prime farmland. A discussion of this policy as related to this project should be included in the EIR.

Jerry L. Bacigalupi
Land Resource Protection Unit

APPROVED:

Land Resource Protection Unit
DATE: 3/6/79

State of California The Resources Agency

Memorandum

To : 1. L. Frank Goodson, Projects Coordinator
Resources Agency

2. City of Hemet
450 E. Latham Ave.
Hemet, CA

Date: February 28, 1979

From : **Department of Fish and Game**

Subject: SCH 79020595 Specific Land Use Plan for the Southwest Area - Hemet

We have reviewed the draft EIR for the subject project and find the document provides a comprehensive assessment of environmental impacts that could result from the implementation of seven Land Use Alternatives designed to guide the pattern of urban growth in the Southwest Area located within the City of Hemet and County of Riverside.

We recommend that Alternative 1 be selected as it provides the greatest potential for preserving natural open space as living space for native wildlife. Our concurrence with this alternative is valid only if there are assurances by the City of Hemet and County of Riverside that identified open space lands will not be rezoned at some future date for urban development.

Additionally, we recommend that if Land Use Alternatives are combined into urban growth strategies allowing decision makers to implement future growth options that will result in urban encroachment into designated open space it will necessitate the preparation of a new EIR for the Specific Land Use Plan. We request the opportunity to review and comment on any environmental documents prepared for the subject plan.

Sponsors of projects resulting in alteration within the high water mark of any streambed should be informed that they must notify the Department of Fish and Game pursuant to Section 1601-03 of the Fish and Game Code. This notification and subsequent agreement must be accomplished prior to commencement of the streambed alteration.

Thank you for the opportunity to review and comment on this document. If you have any questions, please contact Fred A. Worthley Jr., Regional Manager of Region 5 at 350 Golden Shore, Long Beach, CA 90802. The telephone number is 213-590-5113.

Director

AGENDA #11 A

RIVERSIDE COUNTY PLANNING DEPARTMENT

PLANNING COMMISSION
ELMER M. KATZENSTEIN, Chairman, Rubidoux

KAY S. CENICEROS, Hemet
JESS E. LILLIBRIDGE, Corona
KAY H. OLESEN, Palm Desert
DAVID W. TER BEST, Calimesa
RUSSELL E. CAMPBELL, Blythe
MARION V. ASHLEY, Perris

PATRICIA NEMETH – A.I.P. – PLANNING DIRECTOR
4080 LEMON STREET, 9th FLOOR, RIVERSIDE, CALIFORNIA 92501

OKN:96477
March 14, 1979

RECEIVED
MAR 16 1979
CITY MANAGER'S OFFICE

City Council
City of Hemet
450 E. Latham Avenue
Hemet, CA 92343

Re: Draft EIR for Southwest Specific Plan

Honorable Council Members:

We have reviewed the Draft EIR for Southwest Specific Plan, and feel the document is objective and comprehensive in identifying environmental issues as well as proposing possible mitigation measures within the study area. There are, however, a few areas of concern. These concerns are addressed below.

Under Section 3.1.2 (General Plan) on page 18, paragraph two, the first sentence states: "The exclusion of small lot subdivisions . . . from the area surrounding the Domenigoni Mountains is essential to sustaining the agricultural sector of the Valley." As much as this statement may be generally correct, it is not clear whether reference to "sustaining the agricultural sector of the Valley," is with regard to the entire San Jacinto Valley or only the Diamond Valley area. If the former is the case, then the statement cannot be entirely correct. If the latter is the case, then the statement can be acceptable. In any case, it should be clarified as to what sector of the Valley about which the statement is made. The economic value of agriculture in the area also needs to be discussed in relation to non-agricultural uses proposed in the plan. For example, possible impacts of residential development on remaining agricultural lands need to be discussed. A decision as to whether or not to preserve agricultural land should be viewed in this context.

The Draft EIR states (on page 66) that "by limiting growth capacity of the Southwest Area, redevelopment and infill of existing developed areas in Hemet will be encouraged." It should also be pointed out that barring growth in the area will more likely encourage growth in the County areas surrounding the city.

The list of Interim Policies for Hemet-San Jacinto Area Plan should be revised to reflect the latest version as adopted by the County Planning Commission. A copy of the policies is enclosed for your use. There may be additions to these policies after the County Planning Commission considers (April 4, 1979) the City's request that the County require same development standards as the City, and annexation prior to development for parcels adjacent to the City's boundaries.

The County Planning Commission adopted the Hemet-Ryan Airport Land Use Plan today (March 14, 1979). There were some changes made to the version referred to in the Draft EIR. Therefore, the EIR should be revised to reflect those changes. A revised version of the Airport Land Use Policies will be sent to you under separate cover.

Note that aircraft noise at Hemet-Ryan Airport is predicted for 1986, and not merely an "annual average" as the Draft EIR states (on page 77).

The proposed construction of the Salt Creek Channel (if and when it is built) will have a definite impact on growth in the study area as well as the surrounding County areas. This should be recognized in the EIR as an unavoidable impact.

On the whole, I want to thank you for your effort and cooperation in our endeavour to prepare workable plans not only for this area, but also for the Hemet-San Jacinto Valley.

Very truly yours,

RIVERSIDE COUNTY PLANNING DEPARTMENT

Patricia Nemeth

Patricia Nemeth, AIP, Planning Director

PN:sr
cc: Cecil Sterling
Elaine Carbrey

hemetunifiedschooldistrict

2350 WEST LATHAM AVENUE • HEMET, CALIFORNIA 92343 • PHONE (714) 658-2171

February 6, 1979

RECEIVED
FEB 8 1979
CITY MANAGER'S OFFICE

Ultra-Systems, Inc.
2400 Michelson Drive
Irvine, Ca 92715

Subject: Draft Environmental Impact Reports, Specific Land Use Plans, Southwest Area, Section 3.10.1.3 Schools, Page 53

Gentlemen:

The information which we provided you stipulated that under the enrollment column it should read 1977-78. Your column reads 1977-79.

The area you have under question also includes Whittier School. I would recommend that you include that school from the data which I provided you.

In addition, there was a note at the bottom of that sheet indicating that when elementary schools are at 97% capacity, for all practical purposes, they are filled. This was left off. It would be my recommendation that this be included.

Sincerely,

Paul W. Robinson,
Assistant Superintendent,
Business Services

mr
c/City of Hemet, Planning Department
Ross Nammar, City Manager

Eastern Municipal Water District

General Manager and Chief Engineer
Doyle F. Boen
Deputy General Manager
Donald C. Stewart
Legal Counsel
Redwine and Sherrill
Director of The Metropolitan Water District of Southern California
Irwin E. Farrar

Board of Directors
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John M. Coudures
John D. Fett
Merlyn L. McIntyre
Secretary
Donald C. Stewart
Treasurer
Rogers M. Cox

February 13, 1979

RE: SW Area Draft EIR

Ultrasystems, Inc.
2400 Michelson Drive
Irvine, CA 92713

Gentlemen:

In reviewing your Draft EIR: Specific Land Use Plan, Southwest Area, for City of Hemet, January 1979, we have the following questions and comments:

Page 56 - Fig. 22

Spelling of Wentworth & Thornton?

Fig. 23, 24, 25, 26) Location of Thornton - is this not Simpson?

Page 57 - 3.10.2.3. Water

We suggest the following wording instead of that in the report:

> The source of water supply to the Southwest Area is local groundwater, Colorado River water, and nearby groundwater. The latter two being purveyed by E.M.W.D. through a portion of their system as shown on Fig. 23. in Sanderson Avenue, Cawston Avenue, Warren Road, Wentworth, Stetson, Harrison, Simpson, Lyon, and Palm. The Simpson line ties into the Perris Valley system. Imported State Project water will be a future fourth source of water.
>
> "Water quality is being improved [degraded] by mineralization". We assume this is a typographical error.

Page 57 - 3.10.2.4. Sewage (1st paragraph)

The 15" force main from the District's Cawston Lift Station goes as far north as Menlo and is not near capacity. We apologize for possibly giving this impression to you or others previously. It was the prior interim Ryan Field Force Main, or Kirby Force Main, which were nearing capacity and which were essentially replaced by this 15" force main.

Page 59 - Figure 24

The figure is actually denoting lift stations not "Treatment facilities". Also, the most southerly one is now abandoned.

24550 San Jacinto Street • Post Office Box 858 • Hemet, California 92343 • Telephone (714) 925-7676

Page 60 - Top line - "Gp"

Does this mean gallons/day?

Page 101 4.1.10.71 Water, 4th sentence (and pgs. 144 & 145, etc.)

Should not this read:

Domestic use has the primary claim to the imported Colorado River water supply of E.M.W.D. and The Metropolitan Water District of Southern California. In the event of a serious water problem, The Metropolitan Water District of Southern California has a formula for the allocation of the water it imports.

The transition of the SW area from irrigated agriculture to domestic use will not require appreciably more water than is currently being used.

3rd paragraph -- There are "limits" on imported water. The "impacts" could be greater, equal or less than "any other development" depending upon size and type of development, location of and type of waste disposal, and type of water used. E.M.W.D. is working with the Regional Water Quality Control Board on solutions to water quality problems.

Very truly yours

Doyle F. Boen
General Manager and Chief Engineer

By: James H. Bunts, Jr.
James H. Bunts, Jr.
Administrative Engineer

RKM:jlm

Copy to: Planning Director for
City of Hemet

DEPARTMENT of COMMUNITY DEVELOPMENT

M E M O R A N D U M

TO: City Manager and Members of City Council

FROM: Planning Commission

DATE: February 13, 1979

SUBJECT: Draft Environmental Impact Report for the Specific Land Use Plan for the Southwest Area in the City of Hemet.

On February 7, 1979 the Planning Commission held a public hearing on the subject Draft EIR. At that time the Planning Commission accepted the Draft EIR as adequate subject to the following changes, and forwarded the Draft EIR to the City Council for public hearing.

Commission recommended changes to the subject Draft EIR:

Page 11 - Under Mitigation Measures - should read Engineering soils investigation rather than geologic investigation.

Page 14 - Under Sewage -- presently the sewage plant has a capacity for 9,000 additional homes, therefore, the statement in the EIR should be change to read at some time in the future. . .

Page 67 - Under Unavoidable Adverse Impacts - the amount of prime agricultural land should be quantified.

Page 91 - Under Mitigation Measures - Kirby Street should be included and addressed.

Respectfully submitted,

Marion L. Gass

Marion L. Gass
Director of Community Development

bh

KENNETH L. EDWARDS
CHIEF ENGINEER

1995 MARKET STREET
P. O. BOX 1033
TELEPHONE (714) 787-2015

RIVERSIDE COUNTY FLOOD CONTROL AND
WATER CONSERVATION DISTRICT

RECEIVED
APR 2 1979
DEPARTMENT OF COMMUNITY DEVELOPMENT
CITY OF HEMET

RIVERSIDE, CALIFORNIA 92502

27 March 1979

City of Hemet
450 East Latham
Hemet, California 92343

Attention: Ms. Marion Gass

Gentlemen: Re: Southwest Hemet Area EIR

Following are the District's comments on the draft EIR for the Southwest Hemet Specific Plan:

1. Under mitigation measures for hydrology impacts (page 11) it is stated that "The Federal Flood Insurance Program will mitigate the flood hazard in the flood plain." This is misleading, as mitigation of flood hazard will be by physical measures such as elevation of building pads, construction of storm channels and drains, etc. The Federal Flood Program merely required that protection be provided for new developments. This misleading statement recurs throughout the report.

2. On page 32 it is stated "Constant cultivation of the land in the Salt Creek flood plain has virtually eliminated the natural watercourse." This statement implies past farming operations are responsible for flooding on Salt Creek which is not true. Salt Creek lies in a broad, flat alluvial valley, and even in the natural state it had no well defined channel.

3. Statements on page 32 indicate District ".... facilities have proven to be inadequate as recently as 1969." Actually most of the District facilities referred to were constructed after 1969, and they are fully adequate. However, the real problem is that only a small part of the facilities required to solve the flooding problems in Hemet have been constructed, primarily due to funding constraints.

4. In the last paragraph on page 32 the sentence concluding "....and 2) ultimate channel improvements", should be rewritten as follows ".....and 2) ultimate storm drain improvements in the City of Hemet."

5. The statement on page 32 that based on Figure 12 ".....90 percent of the Southwest Area is within a 100-year flood plain" does not seem correct. The area shown subject to flooding on Figure 12 appears to be much less than 90 percent. The 90 percent figure is quoted throughout the report.

6. The proposed ultimate Salt Creek Channel <u>will not be concrete lined</u> as is stated on pages 163, 209, 300 and 343.

7. Under discussion of the various alternatives in the "Traffic and Circulation" section, a statement is made that it has "....been assumed that the proposed circulation system would be developed so that the various roadway segments would be constructed out of the existing floodway, or in such a manner that access would be maintained should a flood occur." It should be noted that construction of all weather crossings for Salt Creek would be extremely expensive even after channelization. The District's plan for channelization of Salt Creek would only provide low flow "dip crossings."

8. Referring to Salt Creek, on page 383 it is stated "....the natural watercourse has already been significantly altered by farming activities, resulting in flood hazards for much of the City." This is incorrect as farming operations have had an insignificant impact on Salt Creek. Furthermore, the City of Hemet is located primarily upstream of Salt Creek which has a minimal impact on the developed portions of the City. Only the undeveloped Southwest Area is impacted directly by Salt Creek.

9. The EIR does not address the issue of the impacts of increased runoff due to development. The Specific Plan does contain a section on "Flood Plain Management Policies" which does address this issue. The EIR should at least recognize the problem of increased runoff, and cite the management policies in the Specific Plan as mitigating measures.

If you have any questions regarding these matters, please feel free to contact this office.

Very truly yours,

KENNETH L. EDWARDS
Chief Engineer

Frank A. Davis
for DAVID T. SHELDON
Planning Engineer

ENGINEERING
PLANNING
SURVEYING

(213) 795-5162
(213) 681-2373

McCUTCHAN & ASSOCIATES, INC.

2100 EAST FOOTHILL BOULEVARD • PASADENA, CALIFORNIA 91107

Our Ref: 127-1301

February 7, 1979

Ms Marion Gass, Director of Planning
City of Hemet
450 E. Latham
Hemet, CA 92343

Dear Ms Gass:

The comments contained in this letter are offered in response to the Planning Commission's solicitation of public input concerning the E.I.R. for the Southwest Area Specific Land Use Plan.

As planning and engineering consultant to Hemco, the owners of the Seven Hills Planned Community, we believe the E.I.R. does not adequately address the adverse impacts which would result from the City's adoption of Land Use Alternatives No's. 1, 2 and 5. These three alternatives include a policy of no construction of an improved flood control channel in the Salt Creek valley. In all three cases, the E.I.R. states under the heading of "Unavoidable Adverse Impacts" - "The Southwest Area will be subject to flood hazards". The E.I.R. does not elaborate on the consequences of failing to take action to reduce the existing flood hazard posed by Salt Creek.

Since flooding was identified by Ultra Systems as one of the major concerns of the citizens of Hemet, it seems that the adverse impact of not permitting improvement of the flood problem in the Salt Creek valley should have been exposed in much greater depth. For the record, we would like to set forth several facts regarding this matter:

*Approximately 90% of the Southwest Area is within the 100-year flood plain. Without improvement of the drainage channels, the area will remain subject to flood hazards.

*Citizen input solicited by the consultants responsible for preparation of the Southwest Area Specific Land Use Plan revealed that perhaps the major concern of the residents of Hemet is the flood hazard, and finding means to prevent flooding.

*The improvement of the Salt Creek Channel is needed to collect and conduct storm water efficiently, safely and economically to drainage courses where it can be carried away without damaging property, isolating residents, or creating health and safety problems.

*The Salt Creek Channel improvement is necessary if the Hemet area drainage system is to be constructed, since it furnishes the outlet for the Hemet area system.

*The Channel would have a significant benefit to the agricultural land because it would prevent crop losses and costly regrading of the land. The elimination of wash-outs, flooded roads and accident potential situations will be a substantial improvement in terms of protection of life and property in the Salt Creek valley.

*The construction of the Salt Creek Channel will provide the opportunity for development of future parks and recreational facilities such as bike riding and hiking trails within the Channel right-of-way.

*The City's existing planning and land use controls can guide and regulate the rate of development of land which is removed from flood hazard by construction of the Channel. The potential population growth can be accomplished over many years, and the growth accommodated in an orderly fashion with minimum adverse effects.

*The true cost of doing nothing about the flood hazard could be quite expensive. The damage caused by previous storms was considerable, although accurate dollar figures are not available. The damage potential of future storms in terms of cost is even greater today because more development value is exposed to the flood damage risk.

We thank you for offering the opportunity to express our views concerning the content of the Southwest Area E.I.R..

Sincerely,

McCUTCHAN & ASSOCIATES, INC.

Larry Rehfield

Larry Rehfield, P.E.

LR/jw

RECEIVED
MAR 12 1979
CITY MANAGER'S OFFICE

McSweeny Farms
28431 State Street
Hemet, California

March 11,1979

Mr. Ken Nishino
Mayor of Hemet
City Offices
Hemet, California

Dear Ken:

As with most of us who live in the valley my family and I have given a great deal of thought to the problems of growth in Hemet and have read the various alternatives presented to the Planning Commission and to the City Council with care.

In terms of the land owned by the McSweeny family it would be our pleasure to continue farming that land indefinitely if we were not so close to urbanization that we are the victime of the attitudes and concerns of the residents who have established homes nearby and if the economics of farming were not becoming increasingly perilous particularly with our high water costs.

Raising commercial crops means that you have noise from the use of farm machinery, you have dust from land preparation and from crop harvesting, you have odor from natural fertilizers, you have need to use government approved herbicides and pesticides, you have trucks and trailers moving merchandise and there is not one of these processes of getting a crop from planting to the consumer about which we do not receive complaints at some time because of the inconvenience it may cause a local resident. It seems to me that similar complaints may be forthcoming if land use is assigned on the basis of one residence to 2½ acres in an area which is already urbanized and does not lend itself to that type of construction.

Making a call to the Forestry Service to ask how frequent the Fire Bomber Flights were in 1978 I was told that 300 hours of flying had been logged and that this indicated that some 500 or more flights had been made. Since we all recognize that such flights are emergent in nature and that short flights which may mean more flights are those which are most apt to be in the immediate vicinity, it is difficult to conceive that the number of complaints can be very high. There is no one of us who knows when the Fire Bomber Service may be working on a fire which directly affects someone we know. With the ability to construct houses which are almost soundproof today, and the potential for reducing the noise the planes make increasing, it seems short-sighted to support a plan on noise pollution which may well end in inverse condemnation for much of the land in southwest Hemet.

My understanding is that consultants claim that 60 decibels of sound is like having an air conditioner in a room and while I'd estimate that at least 80% of the people in this community have air conditioners in their homes, we are being advised to stop building homes where <u>outside noise</u> upon occasion is as high as the sound of an air conditioner. This really seems incongruous.

I would ask you to give serious consideration to the likelihood of finding ourselves with a blighted and neglected area of many acres in southwest Hemet if the plan which limits growth to a maximum of one home to 2½ acres is adopted because of the 55dbl.

I appreciate the opportunity to express my views and ask that these comments become a part of the record of the Public Hearing on the Southwest Hemet Plan. Yours is a heavy responsibility to have the wisdom and perception to look into the future and come up with what is best for Hemet.

Sincerely,

Patricia D. McSweeny

Patricia D. McSweeny

cc. Kent Gozad
Patricia Herron
Robert Lindquist
David Kahn

RECEIVED
MAR 12 1979
CITY MANAGER'S OFFICE

Sierra Dawn ESTATES

RECEIVED
MAR 27 1979
ENVIRONMENTAL STUDIES DIV

February 28, 1979

RECEIVED
MAR 5 1979
DEPARTMENT OF COMMUNITY DEVELOPMENT
CITY OF HEMET

The Honorable Ken Nishino
Mayor of the City of Hemet
450 East Latham Avenue
Hemet, California 92343

Dear Mayor Nishino:

With regard to the proposed development of the acreage west of Sierra Dawn, I, as spokesman for the Homwowners' Association, representing 1474 lots within Sierra Dawn, encourage you to take another look at your environmental study recently presented to the City Council for acceptance.

My understanding is that the environmental report indicating a 55 decibel as a maximum allowable sound level, would permit a very large portion of this acreage to be developed into two and one-half acre small farms. This is an invitation to all forms of livestock which would certainly create an unbearable Stench in the atmosphere for we who live in Sierra Dawn. The prevailing wind is from the southwest which would make the condition intolerable.

I further understand that by raising the decibel from 55 to 60, the area which would be considered for two and one-half acre sites would be much less and a possibility that east of the airport, these parcels could be used for light industry.

It is inconceivable to place these large parcels adjacent to R-1, single-family residences which does not provide the proper buffer zone to such conditions. I would hope that you, as elected officials representing our growing community of Hemet, will give serious consideration to this protest against the present plan being presented to the City Council. which plan, I am told, has received the approval of the Planning Commission.

Thank you for any consideration you might give this matter in behalf of the 1474 lot owners in Sierra Dawn with a population of approximately 2500.

Very truly yours,

Thomas G. Crockatt

Thomas G. Crockatt, President
Sierra Dawn Estates Homeowners' Association, Inc.

TGC:mmm
cc: Ross Nammar
Marion Gass
Kent Cozad
Robert Lindquist, Jr.
Patricia Herron
David Cahn

950 South Lyon Avenue ■ Hemet, California 92343 ■ (714) 925-6502

11. Environmental Impact Assessment and Planned Unit Development No. 10-78 Applicant: Sasco Development and Curtis G. Frame. Location: Northwest corner of Buena Vista and Stetson Avenue.

Dir. of Com/Dev, Gass, referred to the Staff Report dated February 7, 1979, and on file in the office of Com/Dev. She explained that although Staff Recommendations had been for denial, a letter had been recieved from the applicant, in the meantime, requesting continuance. She stated that they were presently working on mitigation measures.

Chairman Wright declared the public hearing open, asking if there was anyone in the audience wishing to speak for or against this item. There being no comments, the Chair entertained a motion.

Commissioner Ciccone moved to deny the proposed project. Seconded by Commissioner Kokes.

There was some discussion among the Commissioner regarding the length of time between the first response from Flood control and attempts to submit revised mitigation measures. Staff explained that the Engineering Firm almost had the revised plans ready for submittal, however, due to a tragedy in their office, the plans were not completed. Under the circumstances, Commissioner Ciccone and Commissioner Kokes withdrew their motion and second.

Commissioner Ciccone moved to continue the item to allow the applicants time to submit revised mitigation measures to Flood Control for their review and written comment. Seconded by Commissioner Kokes. Motion carried.

AYES: Ryan, Sullivan, Ciccone, Kokes, Mazer, Wright
NOES: None.

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12. Environmental Impact Report for the Southwest Specific Plan.

The Dir. of Com/Dev. introduced Mr. Cecil Sterling stating that he would be available to answer any questions concerning the Environmental Impact Report for the Southwest Specific Plan.

Mr. Sterling, of Ultrasystems, explained that the hearing tonight was on the adequacy of the Environmental Impact Report and not on the Southwest Specific Plan He stated that the Commission should determine whether the EIR describes the environmental impacts in the southwest area and if the document is sufficient to serve as an information document.

Commissioner Ciccone stated that there was nothing about the school fees. Mr. Sterling explained that school fees can only be levied by the Council. Under SB201, the law specifies that each school district must make a finding of deficient funds and ask Council to pass an ordinance in accordance to SB201. However, he stated that if the Commission desired a statement requesting the passing of an ordinance supporting school fees, it should be included.

Commissioner Sullivan listed some pages and changes that should be made in the Draft EIR (these are reflected in the motion). Commissioner Sullivan expressed concern over the roads crossing the flood way and what effect they may have on flooding. Mr. Sterling explained that the impact of the roads going across the floodway will depend on the design of roads and the type of channel constructed. He explained that the Southwest Specific plan only specifies the general alignment and not actual roadways. Commissioner Sullivan questioned Alternative 2 asking if the channel must be concrete. Mr. Sterling explained that the old Hemet Master Plan described the channel as being concrete. However, Neste, Brudin & Stone has stated that it could be possible to create a flood control channel without using any concrete at all.

Chairman Wright declared the public hearing open and asked if there was anyone in the audience wishing to speak for or against the Environmental Impact Report.

Mr. Art Swarner of Swarner and Fitzgerald, Attorney for Agri-Empire. Mr. Swarner stated that he was concerned about the impact on his clients property due to flooding. He showed a map prepared by J. Bryant, showing the completed channels and proposed channels. He stated that after the last rain Newport Road was under water. He asked that Hemet allow the Salt Creek Channel to be constructed. He stated that it was imperative that the General Plan have something that will support and require development of the Salt Creek Channel.

Mr. Larry Rehfield, representing Seven Hills Development, stated that it was his opinion that the EIR as presented does not adequately assess the impacts of no channelization. Also, that Alternatives 1, 2 & 5 of the EIR will create unavoidable adverse impacts. Flooding in the City has been recognized as a major problem. He stated that he would not go into details on their objections because McCutchan and Associates would be submitting a letter outlining their objections.

Mr. Daryl Smith, 555 East Thornton, owner of a mobile home park, also speaking for Mr. Herbal, owner of a mobile home park, stated they were concerned when they heard about the 2 1/2 acre lots which will backup to residential areas, due to the horses, cows and everything else that goes with 2 1/2 acre lots. He stressed their concern about the airport, however, felt the noise element could be handled by some other method rather than 2 1/2 acre community type developments. And felt the residents would find the airport noise less annoying than things that go with 2 1/2 acre lots. He stated he and members of the Riverside County had spent three hours tracing flight patterns and the only time it is noisy by the airport is during takeoff of a bomber.

Mr. Jim Miner, Agri-Empire, stated that Hemet was his home. And although his attorney mentioned litigation, he would prefer not having to do that in his hometown. However, he stated that they do share a concern that Hemet has a serious problem in the southwest area with flooding. He stated they would be happy to help if they could.

Ms. Pat McSweeney, property owner in southwest area, expressed her love for Hemet. And stated that the encroachment of dust and horses (2 1/2 acre lots) would be a problem to our community. She complimented the City Staff and Planning Commission on their time spent reviewing the EIR and Southwest Specific Plan. She stated however, that she felt there would be far more complaints due to dust and flies if 2 1/2 acre lots are created, than the City ever dreamed of due to airport noise. She stated that buildings can be built so noise is not problem, but safety could be another problem.

Chairman Wright thanked the audience for their comments, however, reminded them that the subject before them tonight was the adequacy of the EIR and not the Southwest Specific Plan. Their comments concerning the Plan should be directed to City Council since the document had been forwarded to them for review and public hearing.

Mr. Mike Bouye, 555 E. Florida, asked why the Plan was passed to City Council without the EIR. Mr. Sterling explained the purpose of the Southwest Specific Plan and the purpose of the EIR. He explained that the Commission had held several study sessions on the Plan and a public hearing and forwarded it to City Council for review. However, the Southwest Specific Plan could not be adopted without first adopting the EIR. But public hearings could be held on the Plan in the meantime. He stated that Staff had checked with OPR on this procedure and they had assured that it was being handled correctly. Reminding them once again that the EIR must have a 45 day review period and that the Plan could not be adopted until after certification of the EIR.

Mr. Dewitt Hazelton, resident of the county, stated he felt their should have been more press coverage on the Southwest Specific Plan. He felt they were being 'railroaded'.

Mr. Larry Rehfield, McCutchan & Associates, asked when the Planning Commission must make their recommendation to the land use that they felt should be adhered to. Mr. Sterling explained that two alternatives determining growth strategy had been forwarded to the Council.

Discussion ensued and Commissioner Mazer explained to the public that the "Planning Commission had held many study sessions on the Plan, the meetings had been posted or advertised. The papers had been very efficient in listing the meeting dates and times and covering meetings. However, the people chose not to attend these meetings and now that everything is almost completed, everyone comments and say they don't agree and that they were not allowed to contribute their input. We had to do what we could do because the public did not attend like they should."

Mr. Buoye, stated that they were not public hearings. Chairman Wright explained that the public was allowed to attend and contribute their input.

Mr. Buoye stated that they were told the study sessions were to formulate the Plan and then there would be a public hearing. "Now all of a sudden it appears the document is going to City Council without this (EIR) document.

Chairman Wright stated that a public hearing was held on the Southwest Specific Plan on January 17, 1979, at that time the Plan was forwarded to the City Council.

Chairman Ciccone stated that there were several meetings and also meetings held by the County on the airport and the flooding. He stated that the Plan was what the people wanted. He stated there should not be any new houses around the airport. He stated that also there could be ordinances to control the nusiances caused by animals; but you would have to remove the airport to control the noise from there and "we" do not want the airport removed. He stated that the senior citizens were the people to be concerned about. He explained to the audience that the Planning Commission does not have the power to pass ordinances. The City Council does that. He stated that he will continue to say that he desires low density. He stated that the developers want to build as many houses as they can. "I am looking out for the interest of the people of Hemet come 'hell or high water' that is the way it is going to be."

Mr. Sterling once again requested that the comments be constrained to the EIR and the adequacy of the EIR as an informational document. There being no further comments pertaining to the EIR, Chairman Wright declared the public hearing closed.

Commissioner Mazer moved to accept the draft EIR ad adequate and forward it to the City Council with the following changes and additions:

1. Page 11 - Under Mitigation Measures - should read Engineering soils investigation rather than geologic investigation.

2. Page 14 - Under Sewage -- presently the sewage plant has a capacity for 9,000 additional homes, therefore, the statement in the EIR should be changed to read at sometime in the future.

3. Page 67 - Under Unavoidable Adverse Impacts -- the amount of prime agricultural land should be quantified.

4. Page 91 - Under Mitigation Measures -- Kirby Street should be included and addressed.

The motion was seconded by Commissioner Ciccone.

AYES: Ryan, Sullivan, Ciccone, Kokes, Mazer, Wright
NOES: None.

There being no further discussion items or questions, Commissioner Sullivan moved to adjourn the meeting. Seconded by Commissioner Ryan. Motion carried.

MEETING ADJOURNED AT 12:06

Chairman Harry Wright

ATTEST:

Secretary, Marion L. Gass

City Offices
Hemet, California
February 13, 1979

The regular meeting of the Hemet City Council was called to order by Mayor Nishino at 7:30 p.m.

Councilmen present: Nishino, Cozad, Kahn, Lindquist, Herron

Councilmen absent: None

Also present: City Manager Nammar, City Clerk Rodeghier, City Attorney Henderson, Planning Director Gass, Chief of Police Pollom, and the city's consultant, Cecil Sterling.

The Invocation was given by the Reverend Bertha Mae White of the Hemet United Methodist Church, followed by the Pledge of Allegiance to the Flag led by Councilman Lindquist.

Councilman Kahn moved that the minutes of January 23, 1979, be approved as mailed. Seconded by Councilman Lindquist. Motion carried.

I. CONSENT CALENDAR

At this time Mayor Nishino stated for the benefit of the audience that items appearing on the agenda under Consent Calendar would be considered by the Council by one motion in the form and with the recommendations as they appear on the agenda. There will be no separate discussion on any item unless a member of the City Council, public, or Staff wishes to discuss certain items. They would then be removed and considered either under Oral Communications or Mayor and Council Members Comments/Reports as the case may be.

1. Public Works

A. Award of bid to reconstruct the intersection of State Street and Johnston Avenue

(Staff recommends award of bid to Matich Corp. in the amount of $57,000 as the most responsible bid)

B. Request authorization to engage the services of Matich Corp. for street improvements, north side of Devonshire Avenue, as a cooperative project with the Hemet Valley Hospital

(Staff recommends approval with expenditure not to exceed $11,600)

C. Release of Offsite Improvement Bonds, 204 North Mayflower Place. Applicant: Jacobson

(Staff recommends release of faithful performance bond, in the amount of $2,059.50, and release of labor and materials bond, in the amount of $1,029.75, in six months)

D. Release of Offsite Improvement Bonds, Tract Map 8884, at Buena Vista and Johnston. Applicant: CDL Developers

(Staff recommends release of faithful performance bond, in the amount of $30,794.94, and release of labor and materials bond, in the amount of $15,397.47, in six months)

E. Acceptance of Irrevocable Offer to Dedicate for Sidewalk Purposes from John P. Weber, southeast corner, Gilbert and Latham

(Staff recommends acceptance and authorization to record)

F. Authorization to execute water main recapture agreement on behalf of Hemet West Ltd. on Florida Avenue

(Staff recommends authorization for City Manager to execute agreement)

G. Authorization to execute water main recapture agreement on behalf of Hemet West Ltd. on Florida Avenue

(Staff recommends authorization for City Manager to execute agreement)

H. Authorization to execute sewer recapture agreement on behalf of Dwight Sexton on Buena Vista

(Staff recommends authorization for City Manager to execute agreement)

I. Authorization to execute cooperative traffic signal and curb setback project at the intersection of San Jacinto and Florida with the State of California

(Staff recommends authorization for City Manager and City Clerk to execute agreement)

2. City Attorney

A. Ordinance for Adoption - Ordinance No. 769
An ordinance of the City of Hemet, California, approving Zone Change No. 78-60 amending the official zoning map of the City of Hemet.

(Staff recommends adoption)

B. Resolution for Adoption - Resolution No. 1843
A resolution of the City Council of the City of Hemet, California, consenting and authorizing submittal of annexation application for uninhabited territory (Hemet Annexation No. 67)

(Staff recommends adoption)

C. Resolution for Adoption - Resolution No. 1844
A resolution of the City Council of the City of Hemet, California, consenting and authorizing submittal of annexation application for uninhabited territory (Hemet Annexation No. 68)

(Staff recommends adoption)

D. Resolution for Adoption - Resolution No. 1845
A resolution of the City Council of the City of Hemet, California, consenting and authorizing submittal of annexation application for uninhabited territory (Hemet Annexation No. 69)

(Staff recommends adoption)

E. Resolution for Adoption - Resolution No. 1846
A resolution of the City Council of the City of Hemet, California, declaring its intent to order abandonment of certain portions of Taylor Street southerly of Vista Del Monte and setting date and time of public hearing.

(Staff recommends adoption)

F. Resolution for Adoption - Resolution No. 1847
A resolution of the City Council of the City of Hemet, California, declaring its intent to order abandonment of certain alleys and setting date and time of public hearing.

(Staff recommends adoption)

G. Resolution for Adoption - Resolution No. 1848
A resolution of the City Council of the City of Hemet, California, authorizing the endorsement of the instruments of credit on behalf of the City of Hemet.

(Staff recommends adoption)

H. Claim of Clinton R. Putnam et al for personal injuries

(Staff recommends denial)

3. Finance Department

A. Warrants for the second half of January 1979 (January 16-31, 1979)

(Staff recommends approval as submitted by the Finance Director)

There being no questions, deletions, or additions to the Consent Calendar from the audience, the City Council, or Staff, Councilwoman Herron moved that the Consent Calendar, Items 1 through 3, inclusive, be approved as recommended by Staff. Seconded by Councilman Cozad. Roll call vote was taken.

AYES: Nishino, Cozad, Herron, Kahn, Lindquist

NOES: None

ABSTAIN: None

END OF CONSENT CALENDAR

II. PUBLIC HEARINGS

A. Draft Environmental Impact Report for the Specific Land Use Plan for the Southwest Area in the City of Hemet

City Manager Nammar stated that tonight we have before us for consideration the Environmental Impact Report and we have with us Mr. Cecil Sterling to respond to any questions the members of the City Council, or the audience, may have on this matter.

At this time Mayor Nishino declared the public hearing open for presentation on this matter.

Mr. Glenford Foster, 23682 Brook Drive, Canyon Lake, urged the city to join with the County of Riverside to develop an overall plan to control the flooding problems in Hemet, Sun City, Lake Elsinore, and Corona areas. He also stated that Canyon Lake residents are really concerned about the amount of water that flows into their residential area from the San Jacinto Valley and other upstream areas and into Lake Elsinore.

Mr. Ben F. Davis, 30606 Longhorn Drive, Canyon Lake, stated to the Council that recent rain and runoff resulted in one death in the Canyon Lake area whereby a car and its passengers were swept into the Lake by flooding water. He also stated he represents property owners in the Lake Elsinore area and that recently a lumber yard in that vicinity was allowed to be built right in the path of water drainage into the Lake.

In response Mr. Sterling stated that presently the City of Hemet requires runoff water from all new developments to be contained on the site of the development. Every effort and precaution will be taken by the City not to add to the present downstream flow.

Larry Rehfield of McCutchan Associates of Pasadena, engineers for Seven Hills developers, stated that the County Flood Control District has a plan to control flooding in the Salt Creek Channel which runs from Hemet to Sun City. The problem with the plan is a lack of money to construct the channel and that the Environmental Impact Report fails to fully study the impact of the channel itself.

In response Mr. Sterling stated that it is almost certain that the City won't develop the channel because of lack of money and because of the lack of direct benefit to the City of Hemet residents. The construction of this channel will open new lands for development by providing flood control but would do little to cure the existing flooding problems within the City.

Louie Ciccone, member of the Hemet City Planning Commission, urged the City Council to consider all the concerns raised in the Environmental Impact Report and also stated that growth should be low-key goal until there are permanent solutions for the various potential problems raised and discussed in the Environmental Impact Report.

Scott Garrett, 29411 California Avenue, stated that he would like to see some prime agricultural land left in the subject area. It seemed to him that this matter is a big factor but very little is said about it and he hoped that the people do share his feelings on this matter.

In response to Dewitt Hazelton, 24771 Lake Street, Mr. Sterling stated that he and City Manager Nammar have discussed and concur with the establishment of a standby surcharge assessment for new development in the area to finance the needed flood control facilities. This matter was also discussed with the Flood Control counsel. They are receptive to this approach.

Councilwoman Herron said the Environmental Impact Report discusses preserving agricultural land - what will happen to the farmer when he is unable to make a profit due to the continued increase in irrigation costs?

In response Mr. Sterling stated that he hates to lose agricultural land - he grew up on one; however, the Hemet area is feeling the impact of developers in Los Angeles and Orange counties where they are running out of flat land upon which to develop and that he firmly believes that, in spite of what all of us want and desire, the developers from those areas will continue to come to this valley. He also stated in response to several people in attendance that all developments in California would have a negative impact on cities and counties due to the passage of Proposition 13 which restricts the amount of revenue agencies generate and receive from property taxes.

Councilwoman Herron asked if a growing city such as Hemet would not be in better fiscal shape than those cities with slower pace of growth due to the fact that developments now are assessed and taxed at its current market value.

In response City Manager Nammar said the opposite was true since the City will only receive a percentage of property revenue based on 1975-76 figures pursuant to SB 154 and AB 2212 and all the increased assessed valuation is shared among all cities in the district and the County; therefore, cities experiencing growth are definitely losing since a higher rate of growth demands a high amount of added services.

After a lengthy discussion by Councilman Cozad, Councilwoman Herron, and Councilman Lindquist, it was recommended that the public hearing be continued to a later date to allow representatives of the Page Ranch owners and the McSweeney properties time to review and further comment on the Environmental Impact Report.

There being no further discussion on this matter, Mayor Nishino declared the public hearing on the Draft Environmental Impact Report continued open until March 20, 1979, at 7:30 p.m.

III. CITY MANAGER

A. City Manager's Proposed Fiscal Year 1978-79 Revenue Sharing Budget Expenditure

City Manager Nammar stated that for the record a notice was duly published in the Hemet News, pursuant to law, on January 26, 1979, that a public hearing would be held by the City Manager on Tuesday, February 6, at 10:00 a.m. and 3:00 p.m. to receive input on the proposed expenditures from the federal revenue sharing funds. At both public hearings there was no public participation due to lack of attendance. Also a notice of the public hearing was duly published in the Hemet News on February 1, 1979, pursuant to law, advising interested citizens of Council's consideration of the budget this evening. If there are any questions, Staff will be happy to respond.

Mayor Nishino stated at this time the City Council will receive any testimony regarding the proposed expenditures for the fiscal year 1978-79 from revenue sharing funds.

There being none, Councilman Cozad moved to waive the reading of the body of Resolution No. 1849, a resolution of the City Council of the City of Hemet, California, amending Fiscal Year Budget 1978-79 and authorizing the funding and expenditure of $683,660.00 from revenue sharing funds. Seconded by Councilwoman Herron. Roll call vote was taken.

AYES: Nishino, Cozad, Herron, Kahn, Lindquist

NOES: None

ABSTAIN: None

Councilman Cozad moved that Resolution No. 1849 be adopted. Seconded by Councilman Lindquist. Roll call vote was taken.

AYES: Nishino, Cozad, Herron, Kahn, Lindquist

NOES: None

ABSTAIN: None

Motion carried.

B. At this time City Manager Nammar stated that with Council's consent due to time factor wishes Council to consider an offer to pay $5,250 for the City's 1972 Skyline, 12 x 60, coach by McCord Mobile Homes, the coach originally purchased from revenue sharing funds during early 1974 to house the Building Department, presently in storage at the City Yard.

If Council concurs, it would be Staff's recommendation that this unit be declared surplus by the City Council and that the offer be accepted pursuant to compliance with law.

There being no further discussion on this matter by the Council, Councilman Cozad moved that the request and recommendation as outlined by City Manager Nammar be approved. Seconded by Councilwoman Herron. Motion carried.

IV. ORAL COMMUNICATIONS

None

V. MAYOR AND COUNCIL MEMBERS COMMENTS/REPORTS

A. At this time Councilman Kahn requested the City Council to consider the adoption of Resolution No. 1850 informing the appropriate state governmental agencies, as well as the City's Assembly and Senatorial representatives, of the City's opposition to consider the elimination and deletion of the present territorial system establishing vehicular insurance rates.

There being no further discussion on this matter, Councilman Kahn moved to waive further reading of the body of Resolution No. 1850, a resolution of the City Council of the City of Hemet, California, endorsing the continuation of territorial classifications for automobile insurance rating purposes. Seconded by Councilman Cozad. Roll call vote was taken.

AYES: Nishino, Cozad, Herron, Kahn, Lindquist

NOES: None

ABSTAIN: None

Councilwoman Herron moved that Resolution No. 1850 be adopted. Seconded by Councilman Kahn. Motion carried.

VI. EXECUTIVE SESSION

A. Litigation matter

At the request of City Attorney Henderson, Councilwoman Herron moved to adjourn into Executive Session to discuss a litigation matter. Seconded by Councilman Lindquist. Motion carried. Adjournment at 9:59 p.m.

Councilman Kahn moved to reconvene into regular session. Seconded by Councilman Cozad. Motion carried. Council reconvened at 10:10 p.m.

VII. ADJOURNMENT

The next regular meeting will be February 27, 1979. Councilman Cozad moved to adjourn. Seconded by Councilman Kahn. Motion carried. Adjournment at 10:15 p.m.

Respectfully submitted,

Edward J. Rodeghier
City Clerk - City of Hemet

ATTEST:

Ken J. Nishino
Mayor - City of Hemet

RECEIVED
APR 10 1979
ENVIRONMENTAL

City Offices
Hemet, California
March 20, 1979

The adjourned regular meeting of the Hemet City Council was called to order by Mayor Nishino at 7:30 p.m.

Councilmen present: Nishino, Kahn, Lindquist, Herron

Councilmen absent: Cozad

Also present: City Manager Nammar, City Clerk Rodeghier, City Attorney Henderson, Planning Director Gass, Police Chief Pollom, and city consultant Cecil Sterling.

The Invocation was given by Mayor Nishino, followed by the Pledge of Allegiance to the Flag led by Councilman Lindquist.

I. CITY CLERK

A. Resolution for Adoption - Resolution No. 1857

A resolution of the City Council of the City of Hemet, California, requesting the Board of Supervisors of the County of Riverside to render specific service relating to a special election.

There being no discussion on this matter, Councilman Kahn moved to waive further reading of the body of Resolution No. 1857. Seconded by Councilman Lindquist. Roll call vote was taken.

AYES: Nishino, Kahn, Lindquist, Herron

NOES: None

ABSTAIN: None

ABSENT: Cozad

Councilman Lindquist moved that Resolution No. 1857 be adopted. Seconded by Councilwoman Herron. Motion carried.

B. Resolution for Adoption - Resolution No. 1858

A resolution of the City Council of the City of Hemet, California, calling and giving notice of the holding of a special election to be held in said City on Tuesday, May 22, 1979, for submission to the qualified electorate of said City of a certain question, proposition or measure relating to rent review commission for mobile homes.

There being no discussion on this matter, Councilman Kahn moved to waive further reading of the body of Resolution No. 1858. Seconded by Councilwoman Herron. Roll call vote was taken.

AYES: Nishino, Kahn, Lindquist, Herron

NOES: None

ABSTAIN: None

ABSENT: Cozad

Councilman Kahn moved that Resolution No. 1858 be adopted. Seconded by Councilman Lindquist. Motion carried.

C. Direct City Attorney to prepare the appropriate initiative synopsis for voter consideration.

There being no discussion on this matter, Councilwoman Herron moved that the City Manager's recommendation directing the City Attorney to draft the required synopsis of the proposed ordinance for the May 22, 1979,

special election be approved. Seconded by Councilman Kahn. Motion carried.

D. Request authorization to appropriate the amount of $9,600 in Account 130 relating to the special election of May 22, 1979.

There being no discussion on this matter, Councilman Kahn moved that the Finance Director be authorized and directed to amend Account 130 for the fiscal year 1978-79 in the amount of $9,600 as follows:

Account 130-222 - $ 750
130-225 - 2,500
130-271 - 6,350

Seconded by Councilman Lindquist. Roll call vote was taken.

AYES: Nishino, Kahn, Lindquist, Herron

NOES: None

ABSTAIN: None

ABSENT: Cozad

II. PUBLIC HEARING

A. Draft Environmental Impact Report for the Specific Land Use Plan for the Southwest Area in the City of Hemet (continued from the regular meeting of February 13, 1979)

At this time City Manager Nammar stated that this is a continued public hearing on the Environmental Impact Report for the Southwest Area of the City. The comment period as required by law was closed. Any comments submitted as of date will be made an addendum to the report. The consultant responses to those comments will also be made an addendum to the report. It is Staff's recommendation that at tonight's conclusion of the public hearing that the public hearing be closed so that adequate time can be given to the consultant to prepare the required responses and the update of the document which will be presented to the City Council for certification at the April 10, 1979, meeting.

There being no comments by the members of the audience or Council, Mayor Nishino declared the public hearing on the Draft Environmental Impact Report for the Specific Land Use Plan for the Southwest Area in the City of Hemet closed and directed Staff and the city consultant to prepare the appropriate required responses and addendum to the report for Council's consideration at the next regular meeting of April 10, 1979.

III. ADJOURNMENT

There being no further discussion, Councilman Lindquist moved to adjourn. Seconded by Councilman Kahn. Motion carried. Adjournment at 7:52 p.m.

Respectfully submitted,

S/ Edward J. Rodeghier
Edward J. Rodeghier
City Clerk - City of Hemet

ATTEST:

S/ Ken Nishino
Ken J. Nishino
Mayor - City of Hemet

THE FOREGOING INSTRUMENT IS A CORRECT COPY OF THE ORIGINAL ON FILE IN THIS OFFICE
ATTEST: [illegible] 19[illegible]
City Clerk of the City of Hemet, California