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# TOWN OF YUCCA VALLEY

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## DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE COMPREHENSIVE GENERAL PLAN

### V. ALTERNATIVES TO THE PROJECT

#### Introduction

This section of the EIR examines potential impacts to the Town that would be associated with the development of various alternative land use scenarios. Section-III of this document contains analyses of potential impacts generated by the development of the proposed General Plan land use scenario, the "Preferred Alternative." Section-III addressed a range of concerns, including environmental issues, those related to provision of public facilities and services, and aesthetic concerns. This section addresses three additional scenarios and examines the impacts that these distinct and varied land use configurations would have upon the same range of issues addressed in Section-III.

The three additional alternative land use scenarios are: *Alternative 1*, a "more intense" development scenario; *Alternative 2*; a "less intense" development scenario; and the "No Project Alternative," the existing San Bernardino County General Plan land use scenario. The following discussion explores the potential consequences that could result from the development of each of the alternatives. Each alternative has been broken down into the various land use categories that comprise it and their respective areas calculated, in acres and potential dwelling units generated as well as existing and proposed industrial and commercial allocations (Table V-1 through Table V-3). In order to assist in a clear comparison of each, impacts are analyzed under buildout conditions. The attributes and characteristics of each is discussed below. Subsequent discussion focuses on the relative impacts related to each. How well each alternative satisfies the goals and policies of the community is also considered.

#### A. Alternative 1/ More Intense Development Scenario

##### Project Description:

Alternative 1 is a more urban land use scenario. A map illustrating the land use allocation of Alternative 1 is included in the back map envelope. The overall land use pattern is similar to that established by San Bernardino County. However, Alternative 1 allocates a substantial increase of commercially designated lands, a substantial decrease in the amount of industrial lands and a reclassification of "Public/Quasi Public Lands" that greatly increases the amount thereof. See Table V-1 and Table V-3 for a quantification of the major land use categories. These tables illustrate the allocation of land uses referred to above. The emphasis of this scenario is upon commercial (1,200.00 acres) and moderate residential development (28,057 units). Acreage dedicated to industrial development (418.00 acres), however, is the lowest of the four land use allocation models studied. The Town currently serves as the commercial center of the greater Morongo Basin Region. This scenario looks to further enhance Yucca Valley's role in that position.

The residential component of Alternative 1 clusters pockets of higher density residential (multi-family, tri-plexes, and du-plexes) along Highway 62 adjacent to commercial areas and also surrounding the Blue Skies Country Club. Moving southward from the higher densities along Highway 62 this land use scenario maintains a density of approximately 4 du/acre through a majority of the established neighborhoods. In the areas of steeper slopes and other constraints the residential densities increase to 1, 2.5, 5, 10, and 40 acre minimum lot sizes, depending

on the steepness of slopes and environmental sensitivity. In addition, the 40 acre minimum lot size designation serves to buffer the Joshua Tree National Park through land use compatibility.

**Table V-1  
Town of Yucca Valley  
Alternative 1 Land Use Statistics Summary**

Land Use	Total Acres	Dev Acres	Vac Acres	Developed		Potential		Buildout	
				Units	Acres	Units	Acres	Units	Acres
<b>Residential</b>									
R-H-R-40	4461.00	489.50	3971.50	26	-	100	-	126	-
R-L-5	3198.00	668.50	2529.50	580	-	505	-	1,085	-
R-S-2	1321.00	148.00	1173.00	349	-	2,346	-	2,695	-
RL10	3650.50	1863.00	1787.50	2,401	-	7,150	-	9,551	-
R-S-5	1169.00	348.00	821.00	1,219	-	4,195	-	5,414	-
R-M-10	676.50	462.00	231.50	2,010	-	2,314	-	4,324	-
R-L-1	2258.00	215.00	2043.00	345	-	1,920	-	2,265	-
R-L-2.5	5341.00	1399.50	3941.50	760	-	1,557	-	2,317	-
<b>Subtotal</b>	<b>22,075.00</b>	<b>5,593.50</b>	<b>16,498.50</b>	<b>7,990</b>	<b>0</b>	<b>20,087</b>	<b>0</b>	<b>27,777</b>	<b>0</b>
<b>Commercial</b>									
CMU	135.00	35.00	100.00	126	35.00	0-	0-	126	0-
CO	85.00	13.50	71.50	0	13.50	0-	71.50	0-	85.00
CG	980.00	297.25	682.75	154	294.25	0-	539.75	154	973.50
<b>Subtotal</b>	<b>1,200.00</b>	<b>345.75</b>	<b>854.25</b>	<b>280</b>	<b>342.75</b>	<b>0-</b>	<b>611.25</b>	<b>280</b>	<b>1,058.50</b>
<b>Industrial</b>									
IN	418.00	295.00	123.00	0	295.00	0-	123.00	0-	418.00
<b>Subtotal</b>	<b>418.00</b>	<b>295.00</b>	<b>123.00</b>	<b>0</b>	<b>295.00</b>	<b>0-</b>	<b>123.00</b>	<b>0-</b>	<b>418.00</b>
<b>Public Services and Facilities:</b>									
P/QP	697.00	193.00	504.00	15	193.00	0-	504.00	0-	697.00
<b>Subtotal</b>	<b>697.00</b>	<b>193.00</b>	<b>504.00</b>	<b>15</b>	<b>193.00</b>	<b>0-</b>	<b>504.00</b>	<b>0-</b>	<b>697.00</b>
<b>Grand Total</b>	<b>24,390.00</b>	<b>6708.25</b>	<b>17,681.75</b>	<b>7,985</b>	<b>830.75<sup>1</sup></b>	<b>20,087</b>	<b>1,238.25<sup>2</sup></b>	<b>28,057</b>	<b>2,173.50<sup>3</sup></b>

<sup>1</sup> Represents Total of Non-Residential developed acreage.  
<sup>2</sup> Represents Total of Non-Residential vacant acreage.  
<sup>3</sup> Represents Total Build-Out of Non-Residential acreage.

**B. Alternative 2/ Less Intense Land Use Scenario**

**Project Description:**

Alternative 2 exhibits a land use configuration that is the most rural of the four land use allocation models studied. A map illustrating Alternative 2 is included in the back map envelope of this document. The alternative follows the existing land use Pattern with the residential component ranging from higher densities along the Highway 62 corridor to lesser densities further to the north and south of Highway 62.

The pockets of higher densities reflect the existing areas of multi-family and medium density housing (apartments, duplexes, etc.) that are scattered both north and south of Highway 62, from Warren Vista Avenue in the east to the western bounds of the Town's corporate limits. This alternative designates largely developed high density areas with high density designations and allows only in-filling to expand this type of housing.

As residential densities decrease to the north and south, the residential component is governed by existing development patterns, environmental constraints, especially topography, and environmental resources. The established single family residential neighborhoods largely located south of Highway 62 are designated R-S-3.5, R-S-2 and R-L-1. which reflect dominant established development patterns. However, there are areas of half acre lots and smaller in the areas designated R-L-1. As topographical changes occur near the Town boundaries and slopes steepen, minimum lot sizes allowable by this alternative also increase. This land use configuration further minimizes the land use incompatibilities between the Town and the Joshua Tree National Park.

The commercial and industrial character of this alternative allows for only in-filling of both land uses in areas where each is established. This alternative does not permit opportunities for large scale community oriented commercial or extensive industrial development, except in Section 32 of T.1 N., R.6 E., between Avalon Avenue and La Contenta Road and south of Highway 62, where substantial industrial lands are designated. Also see Table V-2 below.

**Table V-2**  
**Town of Yucca Valley**  
**Alternative 2 Land Use Statistical Summary**

Land Use	Total		Dev		Vac		Developed		Potential		Buildout	
	Acres	Acres	Acres	Acres	Units	Acres	Units	Acres	Units	Acres	Units	Acres
<b>Residential</b>												
R-L-10	4060.00	378.50	3681.50	188	-	366	-	524	-			
R-L-2.5	1968.00	790.00	1178.00	574	-	572	-	1146	-			
R-S-2	1863.50	1020.00	843.50	1267	-	1,687	-	2,954	-			
R-L-5	5345.00	2474.50	2870.50	1064	-	571	-	1,635	-			
R-H-R-40	3946.00	718.50	3227.50	26	-	78	-	104	-			
R-L-10	787.00	455.50	331.50	1801	-	568	-	2,369	-			
R-L-1	4107.00	1482.00	2625.00	1723	-	2,555	-	4,278	-			
R-S-5	305.50	161.50	144	715	-	750	-	1,465	-			
R-M-10	138.00	115.00	23.00	583	-	230	-	813	-			
<b>Subtotal</b>	<b>21,520.00</b>	<b>7,595.50</b>	<b>14,924.50</b>	<b>7,941</b>	<b>0</b>	<b>7,377</b>	<b>0</b>	<b>15,288</b>	<b>0</b>			
<b>Commercial</b>												
CMU	120.00	66.00	54.00	37	31	200	14	237	45.00			
CS	50.00	33.00	17.00	0	33	0-	17	0	50.00			
CC	41.00	10.00	31.00	0	10	0-	31	0	41.00			
NC	15.00	0	15.00	0	0	0-	15	0	15.00			
CG	466.00	144.25	321.75	3	144.25	0-	321.75	3	466.00			
CO	42.00	15.00	27.00	19	11	0-	27	19	38.00			
<b>Subtotal</b>	<b>734.00</b>	<b>268.25</b>	<b>465.75</b>	<b>59</b>	<b>229.25</b>	<b>200</b>	<b>425.75</b>	<b>250</b>	<b>655.00</b>			
<b>Industrial</b>												
IN	397.00	200.00	197.00	15	200	0-	197	15	397.00			
<b>Subtotal</b>	<b>397.00</b>	<b>200.00</b>	<b>197.00</b>	<b>15</b>	<b>200</b>	<b>0-</b>	<b>197</b>	<b>15</b>	<b>397.00</b>			
<b>Public Services and Facilities:</b>												
P/QP	391.00	19.00	.5	199.50	0-	191.50	0-	99.50	391.00			
P/OS	348.00	23.00	325.00	0	23	0-	325	0	348.00			
<b>Subtotal</b>	<b>739.00</b>	<b>42.00</b>	<b>325.50</b>	<b>199.50</b>	<b>23</b>	<b>191.50</b>	<b>325</b>	<b>99.50</b>	<b>739.00</b>			
<b>Grand Total</b>	<b>24,390.00</b>	<b>8,105.75</b>	<b>15,912.75</b>	<b>8,214.50</b>	<b>452.25<sup>4</sup></b>	<b>7,768.50</b>	<b>947.75<sup>5</sup></b>	<b>15,661.50</b>	<b>1,791<sup>6</sup></b>			

<sup>4</sup> Represents Total of Non-Residential developed acreage.  
<sup>5</sup> Represents Total of Non-Residential vacant acreage.  
<sup>6</sup> Represents Total Build-Out of Non-Residential acreage.

C. No Project Alternative /San Bernardino County General Plan

**Project Description:**

The land use configuration exhibited by the "No Project Alternative" is the San Bernardino County General Plan Land Use Map for Yucca Valley, which controls development in the Town of Yucca Valley. The back map envelope of this document contains a copy of this land use plan. In the San Bernardino County General Plan, adopted July 1989 and then revised in August of 1991, a discussion of "Yucca Valley Policies/Actions" outlines a planning strategy for the "Yucca Valley Planning Area." These policies/actions, as they are referred to by the County, are discussed in subsequent sections that detail potential impacts to the Town as a result of the development of this alternative.

The "Yucca Valley Planning Area," as delineated by San Bernardino County, is similar in boundaries to the corporate limits of the Town of Yucca Valley, however San Bernardino County included large areas to the north and west as part of the "Yucca Valley Planning Area."

As previous discussed, the land use configuration as mandated by the San Bernardino County General Plan also places the majority of the Town's commercial and higher density residential land uses along Highway 62. The majority of industrial lands, of which the "No Project Alternative" has the highest acreage allocation of all the alternatives, has been assigned to the following locations; contiguous to the Yucca Valley Airport, north and west of the intersection of Skyline Ranch Road/Buena Vista Drive and Highway 247, and in Section 32 of T. 1N., R. 6E.

Existing (1993) residential development patterns in the Town of Yucca Valley are the result of a partial buildout of the San Bernardino County General Plan ("No Project Alternative"). The San Bernardino County General Plan Land Use Map has been revised several times and prior planning document regulated development in today's Town limits. The most recent revisions have included a general increase in densities in the residential component and a generally greater urbanization of the area.

Table V-3 outlines the land use categories, including residential dwelling unit and acreage counts used in the allocation model. The RS18M and RS10M residential designations account for approximately 20,000 of the Town's maximum potential 28,000 single family type residential units at buildout. These two designations are located throughout the southern half of the Town as far south as the Town limits, contiguous to the Joshua Tree National Park. The land use designations that are contiguous to the Joshua Tree National Park range from .5 acre to 40 acre and limited 2.5 acre minimum lots. The smaller residential lot designations adjacent to the Joshua Tree National Park do not serve as the most adequate buffer to the sensitive natural habitat of the Park. As is the case in all of the alternatives, this alternative also requires larger minimum lot sizes as a direct result of topography and some of this constrained terrain is located along portions of the Park/Town shared boundary.

**Table V-3  
Town of Yucca Valley  
No Project Alternative  
Existing County Land Use Statistical Summary**

Land Use	Total	Dev	Vac	Developed		Potential		Buildout	
	Acres	Acres	Acres	Units	Acres	Units	Acres	Units	Acres
<b>Residential</b>									
RL	6179.00	1369.00	4810.00	412.00	-	1,924	-	2,336	-
RL8M	244.50	197.00	47.50	694	-	258	-	952	-
14.5MRM	60.00	0	60.00	0	-	180	-	180	-
PD	35.00	0	35.00	0	-	490	-	490	-
RL10	230.00	29.00	201.00	2	-	875	-	877	-
RL20	25.00	0	25.00	0	-	1	-	-	1
RL5	3684.00	760.00	2924.00	99	-	584	-	683	-
RC	2426.00	318.00	2108.00	8	-	52	-	-	60
RS1	1649.50	536.00	1113.50	683	-	1,113	-	1,796	-
RS18M	2673.50	1094.50	1579.00	2047	-	3,821	-	5,868	-
RS10M	4093.00	1205.00	2888.00	1895	-	12,580	-	14,475	-
3MRM	260.00	143.00	117.00	898	-	1,638	-	2,536	-
4MRM	620.00	320.50	299.50	1196	-	4,023	-	5,219	-
<b>Subtotal</b>	<b>22,179.50</b>	<b>5,972</b>	<b>16,207.50</b>	<b>7,934</b>	<b>0</b>	<b>27,539</b>	<b>0</b>	<b>35,473</b>	<b>0</b>
<b>Commercial</b>									
CG/SPC	622.50	375.00	247.50	19	375	0-	247.50	19	622.5
CO	88.00	40.00	48.00	2	40	0-	0-	48.00	2
CS	16.00	10.00	6.00	0	10	0-	0-	6.00	0
CN	75.00	13.00	62.00	15	13	0-	0-	62.00	15
<b>Subtotal</b>	<b>801.50</b>	<b>438.00</b>	<b>363.50</b>	<b>36</b>	<b>438</b>	<b>0-</b>	<b>363.50</b>	<b>36</b>	<b>801.5</b>
<b>Industrial</b>									
IC	1182.00	323.00	859.00	15	323	0-	859	15	1182
IN	157.00	35.00	122.00	0	35.00	0-	122.00	0	157.00
<b>Subtotal</b>	<b>1339.00</b>	<b>358.00</b>	<b>981.00</b>	<b>15</b>	<b>358.00</b>	<b>0-</b>	<b>981.00</b>	<b>15</b>	<b>1339.00</b>
<b>Public Services and Facilities:</b>									
P/QP	46.00	46.00	0	0	46	0-	0	0-	46
OS	24.00	15.00	9.00	0	15.00	0-	9.00	0-	24.00
<b>Subtotal</b>	<b>70.00</b>	<b>61.00</b>	<b>9.00</b>	<b>0</b>	<b>61.00</b>	<b>0-</b>	<b>9.00</b>	<b>0-</b>	<b>70.00</b>
<b>Grand Total</b>	<b>24,390.00</b>	<b>6829.00</b>	<b>17,561</b>	<b>7,885</b>	<b>857</b>	<b>27,539</b>	<b>1353.50<sup>a</sup></b>	<b>35,524</b>	<b>2,210.5<sup>b</sup></b>

<sup>a</sup> Represents Total of Non-Residential developed acreage.  
<sup>b</sup> Represents Total of Non-Residential vacant acreage.  
<sup>c</sup> Represents Total Build-Out of Non-Residential acreage.

#### D. Land Use, Environmental, and Service Impacts:

The land use, environmental, and public service issues discussed below are the same as those discussed in association with the development of "Preferred Alternative" in Section III of this document. Each of the following subsection discusses the significant impacts associated with the development of each alternative land use scenario, Alternative 1: More Intense Development Scenario, Alternative 2: Less Intense Development Scenario, and the "No Project Alternative:" San Bernardino County General Plan. The analysis of each of the various alternative land use scenarios is conducted in the following manner. Each of the alternative land use scenarios is compared to and measured against the projected impacts that would result from the development of the "Preferred Alternative Land Use Scenario." Section III of this EIR provides detailed and specific impact assessments for potential environmental consequences from implementation of the "Preferred Alternative." By comparison of the internal land use allocations of each of the alternative land use scenarios a logical prediction of impacts to be expected from each alternative can be developed.

#### Land Use

##### *Alternative 1*

The Alternative 1 development scenario exhibits a decidedly urban land use pattern. The impacts of such a scenario result in a net potential increase in housing units of 3,376 and a net potential increase in population of 7,934 when compared to the "Preferred Alternative." This scenario allocates a 1% increase in the overall designated commercial lands but a 49% decrease in the amount of industrial acreage. The emphasis of this development scenario aims to establish the Town's identity as a commercial center. This is in keeping with Town goals, however the conversion of industrial designated lands to both commercial and residential lands to support the premise of this development scenario has many negative effects. The decrease of industrial lands potentially worsens the Town's jobs-to-housing balance, traffic and circulation become super-critical under this alternative (see Appendix E Town of Yucca Valley, Traffic/Circulation Plan). This development scenario is a significant increase in urban intensity and demand for sensitive and limited resources, and appears to be a departure from one of the Town's main objectives, to preserve and enhance the rural character of the community.

##### *Alternative 2*

The impacts of Alternative 2 result in a net potential decrease in housing units of 9,113 and a net potential decrease in population of 21,415 when compared to the "Preferred Alternative." This alternative would also result in a decrease of 35% in commercial acreage and a more substantial decrease of 54% in industrial development. The scenario does create a rural community, but by severely restricting the Town's future commercial potential it fails to preserve and enhance the Town's role as the leading commercial center of the surrounding Morongo Basin. This alone could have serious effects upon the Town's future economic viability by limiting sales tax and other revenues associated with commercial land uses. In addition, this plan greatly restricts future industrial development, thereby limiting the Town's future ability to develop a sufficiently broad jobs base.

##### *"No Project Alternative"*

The "No Project Alternative" is the most intense land use scenario of the four examined in terms of allowable residential densities and industrial acreage. The potential increase in dwelling units over the "Preferred Alternative" is 11,072 and translates into a potential buildout population of 83,481 This compares to projected population of 62,223 to be potentially generated by the "Preferred Alternative." Under the San Bernardino County General Plan there is a 1% decrease in commercial lands and a increase of 8.5% in industrial designated lands when compared to the "Preferred Alternative."

The effect this plan would have upon the character of this community at buildout are projected to be increasingly negative. The large increase in population would change the rural character to a more urban and generally result in the most intense level of residential development, but with substantially reduced economic base and maximized

demand for public services facilities and limited resources. While the increase in industrial acreage is substantial, the jobs-to-housing ratio that it would create is only slightly more favorable than that created under the guidance of the "Preferred Alternative." This is due to the relatively large buildout population and increase in industrial acreage projected under this alternative. One of the most negative impacts due to the development of the "No Project Alternative" is the gridlock traffic conditions and significant increase in demand for infrastructure and services, and a limited potential to develop the scale of commercial development expected to be needed to serve the projected population/employment (see Appendix H Town of Yucca Valley, Traffic/Circulation Technical Report).

## Traffic/Circulation

### *Alternative 1*

Alternative 1 will produce increased impacts to the Town's roadway network at buildout. This alternative would result in a total of approximately 467,765 trip ends and 290,825 trips within Yucca Valley, an increase of approximately 300% over the existing (1993) traffic volumes in Town. Alternative 1, when compared with the traffic generated by the "Preferred Alternative," will produce a 13% increase in overall traffic volumes.

Assuming the mitigation measures along Highway 62 are limited to three through-lanes in each direction with augmented intersection capacity, levels-of-service at identified "Key" intersections, range from "B" to "F" with a majority being "D" and "E" (see Appendix H). The intersection of Highway 62 at Highway 247/Joshua Lane will operate at a level-of-service "F" even after reasonable and viable mitigation measures have been taken. The limited mitigation options are due in large part to the close proximity of the existing adjacent development along Highway 62. In addition, this lane configuration is in keeping with long range plans for Highway 62 as proposed by Caltrans. The impacts associated with the development of this alternative are significant to the point of being "unacceptable."

### *Alternative 2*

The Alternative 2 land use scenario proposes a reduced residential, commercial, and industrial land use configuration. A direct result of fewer residents and less commercial and industrial development is a reduction in traffic impacts. Alternative 2, at buildout, would result in a total of approximately 256,440 trip ends and 160,065 trips in Yucca Valley, an increase of approximately 143.3% over existing (1993) traffic volumes. Comparison of Alternative 2 with the "Preferred Alternative" at buildout indicates an approximate 40% decrease in the traffic volumes. The "Traffic Circulation and Transportation Plan for the Town of Yucca Valley California" identified no significant impacts to the Town's roadways as a result of buildout of this land use scenario. Appendix H identifies the levels-of-service at the Town's "Key" intersections as a result of Alternative 2. All of the identified "Key" intersections will operate at level-of-service "A," except two, Highway 62 at Sage Avenue and Highway 62 at Joshua Lane/Highway 247, which will operate at level-of-service "B." Levels-of-service "A" and "B," applying the same level of design mitigation as applied in the "Preferred Alternative." All the impacts associated with an increase in traffic volumes; increased traffic congestion, reduction of air quality, and an increase in vehicular noise are at a minimum as a result of the Alternative 2 land use scenario when compared with all the other land use scenarios proposed.

### *"No Project Alternative"*

Of the four examined alternative land use plans, the "No Project Alternative" will have the most severe impacts upon the Town's roadway network. The total number of average daily trips that would be generated under buildout conditions of the San Bernardino County General Plan is approximately 597,365 trip ends and 371,402 trips in Yucca Valley. This is a 339.3% increase over the existing (1993) ADT's on the Town's current roadway network. The "No Project Alternative" will generate 31% more trips at buildout than the "Preferred Alternative." Of seventeen (17) key intersections, levels-of-service values at all but four (4) will operate at LOS "F" with buildout of this land use plan. It should be noted that these level-of-service values are results after reasonable

mitigation measures have been taken. A circulation network dominated by level-of-service values of "F" is unacceptable.

### Soils and Geology

The Town of Yucca Valley includes extensive areas of steep and rocky terrain, with unstable slopes, potential rockfall hazard areas and soils subject to excessive erosion. Development on steep slopes has increased the risk to life and property, particularly in association with recent knowledge of significant potential on-going seismic activity in the Town and vicinity. The Town and vicinity are also subject to significant soil erosion, principally associated with storm runoff from existing washes, along major streets and on barren land. In addition to threatening property and improvements, serious erosion also reduces the control of stormwater runoff and contributes to costs associated with removal of silts and sand deposited in culverts and public roadways.

#### *Alternative 1*

In areas of steeper terrain the development of the Alternative 1 land use scenario allocates higher residential densities in comparison to the Preferred Alternative. Potentially significant impact to these areas include increased exposure seismic hazards, as well as flooding hazards and aggravated erosion potential. Development induced erosion could increase potentially costly cleanup of sediment deposits.

#### *Alternative 2*

Alternative 2 will impact the potentially geologically hazardous areas the least of all the proposed alternatives. With less development in the hazardous areas, lower impacts to both the residential and other types of development are expected.

#### *"No Project Alternative"*

The "No Project Alternative" generates substantially greater potential consequences both in terms of life and property in the event of an earthquake or the greater potential increase for erosion from excessive development of the Town hillside areas and steeper terrain. Of the four alternatives, Alternative 2 generates the greatest potential for significant impacts related to geotechnical conditions

### Hydrology

While the Yucca Valley mean annual rainfall in this region is very low, averaging less than 10 inches annually, the Town and region are subject to intense, high volume thunderstorms. Sufficient intensities of rainfall can quickly saturate the sandy surface, thereby eliminating percolation and increasing runoff. Development also increases runoff by creating large areas of impervious surfaces. Increased runoff upstream can be a significant contributor to damage downstream.

Substantial capital investments in dikes, levees, channels, detention basins, and debris removal from all of these facilities are essential to flood management. The total costs in terms resource protection and land use compatibility, financing and thoughtful integration of facilities must be assessed. Cost must be weighted against the economic impacts likely to result from major flooding. Flood control improvements are frequently necessitated by development itself, which creates potentially significant runoff problems.

Development intensity directly affects the degree to which each of the proposed alternatives depend upon and generate a need for drainage facilities. The costs associated with providing the Town adequate flood control facilities is directly proportional to the type, intensity and value of lands and improvements in project benefit areas. Of course, the more development proposed by the various land use alternatives the higher potential cost associated with providing adequate flood control facilities.

### *Alternative 1*

The development configuration and intensities proposed by the Alternative 1 land use scenario exhibits a development pattern that is decidedly more urban than the "Preferred Alternative." With increased urbanization comes an increase in the potential runoff. The percent difference between the amount of development of various land use categories prescribed by this alternative versus the "Preferred Alternative" is as follows: approximately 13.8% more residential development, 1% more commercial development and 49% less industrial development.

It should be noted that although this scenario does exhibit less industrial acreage than does the "Preferred Alternative," on the whole industrial land is by far the least amount of the various overall land use types proposed (see Table V-I). Therefore the 49% less industrial lands as designated by this scenario should be weighed accordingly. This alternative does in fact propose substantially more overall development than does the "Preferred Alternative." With the increased runoff potential generated by this scenario additional facilities, in excess of those required by the "Preferred Alternative," will be required at substantial cost to the Community.

### *Alternative 2*

Based upon the arguments discussed above, Alternative 2 would require the least amount of flood control facilities of all the alternatives. This is due to the low intensity development that this alternative proposes.

### *"No Project Alternative"*

The development of the "No Project Alternative" would impact the runoff potential generated by local precipitation far more than any of the other proposed alternatives. When compared to the development proposed by the "Preferred Alternative," this scenario proposes a percent increase in residential development of approximately 45.4%. This scenario proposes a 7.4% decrease in the amount of commercial development, and a substantial increase of 56% of industrial lands. This equates to a significant overall increase in the runoff potential for the Town under this scenario.

### **Water Quality/Resources: "No Project Alternative"**

Water is an essential resource and its availability and use will greatly influence the extent and rate at which the community develops. The Town of Yucca Valley lies within the Warren Valley Hydrologic Subarea. The primary source of water supply to the Town of Yucca Valley is the Warren Valley Groundwater Basin (WVGB). Water use in the Town is primarily for domestic and municipal purposes<sup>10</sup>. The Town currently (1995) relies entirely upon the local aquifer for its water needs. The 1993 aggregate per capita consumption rate in Yucca Valley was approximately 160 gallons per day.

The demand for the Basin's groundwater resources far exceeds its natural supply. Since the 1950's, extractions from the Warren Valley Basin have exceeded its safe yield and have caused an overdraft condition. The United States Geologic Survey (USGS) estimated that the groundwater would be completely depleted by the year 2000<sup>11</sup>. However, soon to arrive import water will help alleviate this overdraft condition and allow recharging of the aquifer. Assuming the overdraft condition can be mitigated, an analysis of impacts from the development of the alternative land use scenario's now becomes relevant.

Increased urbanization can have serious detrimental effects upon a Town relying upon a local groundwater aquifer as its sole source of potable water. With increased urbanization more of the area will be paved which does not allow local precipitation to recharge the aquifer. Also there is a greater chance of groundwater contamination from the increase in point and non-point source pollution. Finally, increased urbanization will draw down the water table faster through greater overall consumption rates. As the groundwater table is drawn down deeper and deeper the quality of water generally worsens. The deeper water is generally older and thus harder.

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<sup>10</sup> Final Draft Report, Warren Valley Basin Watermaster, Yucca Valley, California, Prepared by Kennedy/Jenks/Chilton, January 1991.

<sup>11</sup> Ibid.

#### *Alternative 1*

The land use configuration and the densities proposed by Alternative 1 will inhibit local precipitation from gaining access into the local aquifer. This is due to the urban character of this land use configuration and the increased amount of impervious surfaces that accompany urbanization. The aggregate consumption rate of 160 gallons per day per capita would translate into approximately 11,177,908 gallons of water consumed daily at buildout conditions of Alternative 1. Alternative 1 will consume approximately 12.3% more water on a daily basis than would be consumed under buildout conditions of the "Preferred Alternative."

#### *Alternative 2*

Alternative 2 will generally have the least impact on the Town's water resources of all the proposed land use scenario's. With a more rural emphasis this land use configuration will provide more natural areas to allow percolation of local precipitation and less runoff and evaporation. Also this scenario minimizes the number of commercial and industrial operations and hence lessens the number of potential contamination sources. This alternative will have the lowest total consumption of all the alternatives. Utilizing the consumption rate of 160 gallons per day, this alternative will consume an total of 6,239,542 gallons per day. This alternative will consume approximately 37.33% less water on a daily basis than would be consumed under the "Preferred Alternative."

#### *"No Project Alternative"*

The development of the "No Project Alternative" will have the most extreme impacts upon the Town's Water Quality Resources. Due to the larger population that this alternative would generate at buildout, the approximate daily consumption of water would be 14,152,761 gallons. This represents a 42.16% increase over the water consumption that would occur as a result of buildout of the "Preferred Alternative."

The potential for ground water contamination is significantly increased under this scenario due to the increase in septic systems and the large increase in potentially hazardous material producing industrial land uses. This alternative proposes an increase of 56% in industrial acreage over the amount proposed by the "Preferred Alternative

### **Biological Resources**

Biological resources are comprised of ecological systems or networks of interrelationships between living things. As evidenced by aerial photos, almost all urbanization clears land. However the extent of disturbance can in part depend upon the intensity of the land use. Low density residential tends to preserve more of the natural landscape than commercial, industrial or high density residential. For purposes of this analysis low density residential will be defined as lots no smaller than one (1) acre. Areas of concern include preservation of natural flood ways and the cost-effective development of drainage facilities integrating habitat enhancements.

#### *Alternative 1*

Alternative 1 allocates approximately 16,650 acres to land uses that fall within the parameters of the defined low density residential category. This amount is approximately 15.68% less than those low density residential lands as designated by the "Preferred Alternative." However, this alternative generates a large population in higher density designations which will also add to the impacts that this plan will have upon the natural environment. This alternative will have a greater impact upon the local biological resources than will the "Preferred Alternative."

#### *Alternative 2*

Alternative 2 allocates approximately 16,106 acres to land uses which fall within the defined parameters of low density residential. This is an increase of approximately 12.83% over the amount of low density residential land as allocated by the "Preferred Alternative." The Town's future biological resources will be least impacted by the Alternative 2 land use scenario.

It should be noted that all of the alternative land use scenarios, except the San Bernardino County General Plan land use plan, have the same lands designated as Public/Quasi-Public and Parks and Open Space. These lands include natural drainage courses and washes, recreational lands, and some areas of extreme slopes. These lands can be sensitive biological habitats. They may also serve as wildlife corridors. The drainage courses and washes may also provide improved riparian habitat. Again, these lands are similarly delineated on all alternatives, except the San Bernardino County General Plan land use scenario.

#### *"No Project Alternative"*

As noted in the preceding paragraph the "No Project Alternative" is lacking in lands that are designated as Public/Quasi-Public and Parks and Open Space, see Table V-3. That fact coupled with the most intense land use development concept of all the proposals easily demonstrates the negative impacts that this alternative poses to the Town's Biological Resources.

### **Cultural Resources**

The Town of Yucca Valley and the Morongo Basin have a long and interesting history of human culture to draw upon, extending from the prehistoric seasonal villages and camps of pre-Colombian Indians with their rock art and pottery, to the modern town with state-of-the-art technologies and communication systems. The impacts that development will have upon cultural resources can be difficult to predict. In the context of preserving ancient and historical cultural sites, increased development pressures will degrade these sensitive areas. However, new development can also bring new and diverse cultural resources into the community.

#### *Alternative 1*

The potential for this alternative to detrimentally affect locally significant historical/cultural sites is greater than the potential for disturbance of these sites as a result of the development of the "Preferred Alternative" simply because this alternative will generate a 5% increase in the potential population over the "Preferred Alternative." However this same statistic will potentially enhance the communities present day cultural base.

#### *Alternative 2*

This alternative will have the least detrimental impact to locally significant historical/cultural sites of all the alternatives. However, this alternative will buildout to a population that is 42% less than that of the "Preferred Alternative." This could have a negative impact on the Town's future population pool from which to draw on for cultural enhancement, by there simply being less of a population from which to do so.

#### *"No Project Alternative"*

This alternative could have disastrous effects upon existing (1995) historical/cultural sites due mainly to the intensity of this development scenario and the large increase in the areas population that could cause substantial site disturbances. However this scenario could positively impact the Town's future cultural resources with this same large population influx into the community.

### **Air Quality**

The Town of Yucca Valley, in relation to other areas in Southern California, essentially has good air quality. In the past few decades noticeable deterioration of air quality has occurred due to increased development and various site disturbances. It is apparent that although air pollution is emitted from various sources in the Morongo Basin, the most evident degradation of air quality may be attributed mainly to sources outside of the area.

There are many types of pollutants that affect air quality. These include oxides of nitrogen, carbon monoxide, particulate matter (PM<sub>10</sub>) and blow sand. The majority of these negatively impacting elements of air quality

increase with development. Also the majority of these negatively impacting elements of air quality are produced by automobiles.

*Alternative 1*

Recognizing the source of much of the Town's locally generated air quality pollutants are discharged from automobiles would lead to the conclusion that this decidedly urban development scenario will have a greater negative effect upon the Town's air quality than would the development of the "Preferred Alternative." This is evidenced by a comparison of the total number of average daily trips exhibited by each land use scenario. Alternative 1 will generate approximately 8.5% more ADT's than would be generated by the "Preferred Alternative."

Table V-4 summarizes the anticipated daily emissions as a result of the Alternative 1 land use scenario.

**Table V-4  
Anticipated Daily Alternative 1  
Related Emissions  
(lbs./day)**

	Stationary Source Emissions	Moving Source Emissions		Threshold Criteria*
	Power Plants	Consumption of Natural Gas	Vehicles at 50 mph	Total Pounds Per Day
Carbon monoxide	170.58	356.16	38,894	39,420.74
Nitrogen oxide	980.84	1,514	39,328	41,822.84
Sulfur oxide	102.35	n/a	n/a	102.35
Particulates	34.12	3.45	2,964	3,001.57
ROCs	8.52	94.38	4,988	5,090.90
				Total Pounds Per Day
				550.00
				55.00
				150.00
				150.00
				55.00

\*Threshold criteria: Offered by the South Coast Air Quality Management District for assistance in determining the significance of air quality impacts. If the project is capable of daily emissions of one or more listed pollutants exceeding the threshold noted, the responsible lead agency may wish to require impact assessment and mitigation measures in an EIR. The suggested criteria are the District's New Source Review (NSR) rule limits. Detailed analysis and mitigation strategies are provided in this EIR for the proposed project.  
Sources: CEQA Air Quality Handbook, prepared by South Coast Air Quality Management District, April 1993. Appendix to Chapter 9.

*Alternative 2*

This development scenario will generate approximately 33.58% less ADT's than will the "Preferred Alternative." This alternative will have the least detrimental impacts upon the Town's air quality.

Table V-5 summarizes the anticipated daily emissions as a result of the Alternative 2 land use scenario.

**Table V-5  
Anticipated Daily Alternative 2  
Related Emissions  
(lbs./day)**

Stationary Source Emissions	Moving Source Emissions			Threshold Criteria*	
Total	Power Plants	Consumption of Natural Gas	Vehicles at 50 mph	Pounds Per Day	Pounds Per Day
Carbon monoxide	100.3	201	23,804	24,105.3	550.00
Nitrogen oxide	576.8	860	24,069	25,505.8	55.00
Sulfur oxide	60.2	n/a	n/a	60.2	150.00
Particulates	20.06	1.95	1,814	1,836.01	150.00
ROCs	5.02	53.35	3,053	3,111.37	55.00

\*Threshold criteria: Offered by the South Coast Air Quality Management District for assistance in determining the significance of air quality impacts. If the project is capable of daily emissions of one or more listed pollutants exceeding the threshold noted, the responsible lead agency may wish to require impact assessment and mitigation measures in an EIR. The suggested criteria are the District's New Source Review (NSR) rule limits. Detailed analysis and mitigation strategies are provided in this EIR for the proposed project.  
Sources: CEQA Air Quality Handbook, prepared by South Coast Air Quality Management District, April 1993. Appendix to Chapter 9.

*"No Project Alternative"*

This development scenario will generate approximately 31% more ADT's than will be generated by the "Preferred Alternative." This will have an increased adverse effect upon the Town's air quality as it relates to automobile related pollution.

Table V-6 summarizes the anticipated daily emissions as a result of the "No Project Alternative" land use scenario.

**Table V-6  
Anticipated Daily No Project Alternative  
Related Emissions  
(lbs./day)**

Stationary Source Emissions	Moving Source Emissions			Threshold Criteria*	
Total	Power Plants	Consumption of Natural Gas	Vehicles at 50 mph	Pounds Per Day	Pounds Per Day
Carbon monoxide	173.19	428.33	42,986	43,587.52	550.00
Nitrogen oxide	995.83	1,780	43,465	46,240.83	55.00
Sulfur oxide	103.91	n/a	n/a	103.91	150.00
Particulates	34.63	4.20	2,916	2,954.83	150.00
ROCs	8.66	113.5	5,513	5,635.16	55.00

\*Threshold criteria: Offered by the South Coast Air Quality Management District for assistance in determining the significance of air quality impacts. If the project is capable of daily emissions of one or more listed pollutants exceeding the threshold noted, the responsible lead agency may wish to require impact assessment and mitigation measures in an EIR. The suggested criteria are the District's New Source Review (NSR) rule limits. Detailed analysis and mitigation strategies are provided in this EIR for the proposed project.  
Sources: CEQA Air Quality Handbook, prepared by South Coast Air Quality Management District, April 1993. Appendix to Chapter 9.

**Noise**

The Town's current (1995) noise environment is dominated by vehicular sources generated along Highway 62 and 247 and other major local roadways. Future noise sources could include historically typical stationary noise

generators common to industrial and commercial land use designations. These land uses include but are not limited to manufacturing plants, building supply outlets, and automotive/truck repair shops. The noise generated from local air traffic and from the Marine Base air traffic in Twenty-Nine Palms also contributes to the Town's local noise environment, however these sources will not be perceptively altered under any of the various alternatives, and therefore air traffic is treated as a constant.

#### *Alternative 1*

In relationship to the two predominant types of noise generators impacting the Town, traffic and stationary, this scenario will have a slight decrease in stationary noise generators and an appreciable increase in noise generated by vehicular traffic when compared to that generated by the "Preferred Alternative". The amount of commercial and industrial acreage designated per this alternative is 1,618 acres. This is a 19.8% decrease of potentially stationary noise generators over and above those types of potentially noise generating land uses as proposed by the "Preferred Alternative."

Under this scenario the potential increase in vehicular traffic noise would be significantly greater than vehicular traffic noise as a result of the development proposed by the "Preferred Alternative." Within Table V-2 of the Acoustical Analysis Report, see Appendix I, the 65 CNEL contour distance from the centerline of the street in feet as a result of vehicular traffic is illustrated. This distance from centerline ranges anywhere from 5.6% to approximately 27% greater as a result of the development of Alternative 1 as compared to the development of the "Preferred Alternative." As a result of the development of this alternative the potential for noise produced by vehicular traffic sources would be substantially greater when compared to the potential noise generation due from the development of the "Preferred Alternative."

#### *Alternative 2*

Alternative 2 allocates 1,131 acres of commercial and industrial lands. Again these land uses typically constitute the type of land uses termed stationary noise generators. This alternative allocates approximately 43% less of these potentially noise generating land uses than does the "Preferred Alternative." Hence, in relationship to future potential stationary noise sources, this alternative is less obtrusive upon the Town's noise environment as compared to the "Preferred Alternative"

The potential vehicular noise generated as a result of this alternative is considerably less than that generated by the "Preferred Alternative." Analyzing the distance from centerline of the Town's roadways to the 65 CNEL contour further illustrates this point. The approximate distance in feet from the roadway centerline of major local roads to the 65 CNEL contour as a result of the vehicular traffic generated by this scenario as compared to the "Preferred Alternative" ranges from approximately 5.5% to 25.8% less.

#### *"No Project Alternative"*

This alternative will potentially have the greatest impact upon the Town's noise environment of all the proposed alternatives. The land use configuration represented by the "No Project Alternative" generates the most traffic and designates more potentially stationary noise generating type land uses than any other proposed scenario. This plan allocates 2,140 acres of commercial/industrial land uses. This is a 7% increase in potentially stationary noise generating land uses over and above the potentially noise generating land uses possible under the guide of the "Preferred Alternative."

The vehicular traffic noise generated by the "No Project Alternative" will generally increase the 65 CNEL contour distance from the local roadways' centerline, as compared to that distance created by the traffic volumes due to the "Preferred Alternative," anywhere from 17% (HWY 247 south of Buena Vista) to 34% along HWY 62 (west of Kickapoo Trail).

## Visual Resources

The visual resources of the Town are essential assets reflecting the community's image and character. Preservation and enhancement of the community's visual resources can offer many benefits to the Town's environment and economy.

The Town is rich in scenic resources that are quite unique to its geographical location. The visions of contrasting snow-capped mountain scenery and vast expanses of desert all contribute to the Town's scenic beauty. The natural setting and indigenous species of flora and fauna, such as Joshua Trees and the Desert Tortoise are framed by pristine natural backdrops. Through the development of design guidelines and a scenic highway system these resources can be protected.

### *Alternative 1*

This land use development scenario entitled , Alternative 1/More Intense Development Scenario proposes more intense residential development and similar acreage of commercial and industrial land uses compared with the "Preferred Alternative." The variance of development intensity between Alternative 1 and the "Preferred Alternative" is not extreme enough, in relation to visual resources, to overly effect this resource either more or less than would its affected by the "Preferred Alternative." The determining factor pertaining to the enhancement or detract from the areas visual resources is not necessarily a function of the land use configuration but rather of the design guidelines and development policies governing aesthetics. These issues, design guidelines and development policies pertaining to aesthetics, would more or less be a constant under all the proposed development scenarios. Therefore visual resources are arguably negligibly effected under the development of Alternative 1 as compared to the "Preferred Alternative" and for that matter any of the other development scenarios as well.

### *Alternative 2*

The development intensity of this land use scenario is markedly less intense than proposed by the "Preferred Alternative." But again development intensity is not necessarily the governing issue when addressing visual resources unless there is a radical difference in the Town's character and intensity between these two alternatives and that is not the case. As discussed under the analysis of Alternative 1 this resource is more of a function of design guidelines and development policies related to aesthetics which will more or less be constant under all scenarios. Therefore this scenario will enhance or detract from this resource similarly when compared to the "Preferred Alternative."

### *"No Project Alternative"*

Although this alternative land use development scenario is considerably more intense than that proposed by the "Preferred Alternative," with the adherence to a set of design guidelines and/or development policies addressing aesthetics that would be relatively similar to those proposed under the "Preferred Alternative" the impacts upon this resource would be unchanged when compared to the effect that the "Preferred Alternative" land use scenario would have.

## Public Services and Facilities

In order to accommodate and support any future growth and development within and surrounding the Town of Yucca Valley, a wide range of public services and facilities, including quasi-public services, will be necessary. These include local and regional governmental services, special districts, and services and facilities provided by public utilities. The service purveyors are listed below ( the utility or service provided by the purveyor is also listed below):

- Hi-Desert Water District - water and waste water service

- Hi-Desert Disposal - solid waste
- Southern California Gas Company - natural gas
- Southern California Edison - electricity
- GTE California - telephone
- San Bernardino County Sheriffs Department - police protection
- San Bernardino County Fire Department/California Department of Forestry - fire protection
- San Bernardino County Flood Control District - regional drainage
- Morongo Unified School District - K-12 schools
- San Bernardino County Library System - library services
- Hi-Desert Memorial Hospital District and Desert Hospital - regional medical facilities

A detailed analysis of the future necessary public facilities and services as a result of developing per the "Preferred Alternative" land use scenario is discussed in Section III of this document. The issues addressed included solid waste, electricity, natural gas, telephone, police protection, fire protection, schools, libraries, and medical services. It should be noted that although water services is considered a public facility/service, due to its great significance and importance to the community it is discussed in greater detail within its own section entitled, "Water Quality/Resources."

Each of the issues noted in the previous paragraph are all impacted similarly as a result of varying development densities. The more intense the proposed future land use configuration the more impacted the public facility/service. The less intense the proposed future development scenario the less impacted that particular public facility/service will be.

Table V-7 below illustrates the impacts to key public facilities/services associated with the development of the various alternatives.

**Table V-7  
Public Facilities/Services  
Impacts Due From  
Alternative Land Use Scenarios**

Public Fac./Serv.	Pref. Alt.	Alt. I	Alt. II	No Proj. Alt.
Electricity: KW Hrs./Year	265 Million	311 Million	183 Million	316 Million
Natural Gas: Cubic Ft./Month	164.5 Million	213.7 Million	120.9 Million	257 Million
Schools: Total Students	10,110	13,608	7,596	17,229
Police Protection: Patrol/Pop.	6	8	4	10

### Socio-Economic Resources

Socio-economic resources cover a large range of issues ranging from demographics to economics. Ethnicity, age distribution, building valuations, per capita and median household income, the role of tourism and taxable sales data are also included as to illustrate the active social and economic environment of the Town. All of these characteristics of the community are essential in determining the status and long term potential for the economic development of an area.

For purposes of this discussion the analysis of the land use distributions and allocations prescribed by the various alternatives will consist of a straight line correlation between acreage amounts of types of land use to the economic impacts these allocations will have upon the Town.

The demographic and ethnic make-up of the Town under buildout conditions of the various alternatives will be assumed to be relatively constant under all the alternatives and therefore will not be discussed as a varying impact upon the Town. The 1993 trends of the demographic and ethnic character of the Town illustrates a community that is predominantly white and older in its citizenry's age make-up (median age 41.8). Historical indicators depict that these conditions will continue, however the median age is predicted to lower in the future.

#### *Alternative 1*

Alternative 1 allocates 1,618 acres of land to commercial and industrial land. This is a decrease of 375 acres from that proposed by the "Preferred Alternative." Revenue generating through taxable sales vis a vis commercial and industrial lands could be considered to be negligibly less under Alternative 1 as compared to that generated by the land use allocations proposed under the "Preferred Alternative."

The residential component of a land use map and its impact upon a community in terms of economically is difficult to assess. On the one hand residents will theoretically spend money in their community. On the other hand these same residents will require support from local public facilities/services, which will place an economic burden upon the Town. A key factor in determining whether or not the residential character and amount of a community positively or negatively impacts an area is whether or not the Town's residents also work in their

community. This would indicate that the residents whom work in their community would not have the opportunity to spend income outside of the community as much as someone whom had to commute outside of the area for employment. Therefore coupling the residential component with the industrial component(job creating land use) would give a more credible picture of what the economic impacts of the residential land use allocations to the community would be.

Alternative 1 will potentially create 28,057 dwelling units and designates 418 acres of industrial lands. This alternative does not compare favorably with the lower residential counts and greater industrial lands designated by the "Preferred Alternative."

*Alternative 2*

This alternative greatly decreases the commercial allocations and slightly decreases the allocation of industrial lands when compared with the "Preferred Alternative." This will decrease the potential revenues garnered by taxable sales in the future, however the decrease in the number of residents will also decrease the amount the Town will need to spend on public facilities/services in order to support the lesser population.

*"No Project Alternative"*

This alternative is by far the most intense land use scenario under review. This land use scenario allocates what amounts to an increase of 31% in residential land use potential which could pose an extreme burden upon the Town in the way of providing public facilities and services.

This alternative allocates a rather substantial increase in the amount of industrial lands, 35.77% over what is proposed under the "Preferred Alternative." This has the potential to create an important job base, however historical trends do not support this rather immense allocation of this land use category.