

SECTION 5

5.3 SOCIOECONOMICS

5.3.1 AFFECTED ENVIRONMENT

Study Area Definition

Socioeconomic data were analyzed for the Cadiz Project site and the surrounding area and are described in the following paragraphs. The regional setting of the Cadiz Project area is shown on Figure 5.3-1.

The Cadiz Project site is the area that is directly affected by Cadiz Project construction and operation of Cadiz Project facilities such as the wellfield, spreading basins, pumping plants, power distribution facilities and water conveyance facilities.

The surrounding area consists of communities located in the Cadiz Project vicinity potentially influenced by socioeconomic effects of the Cadiz Project. The surrounding area includes the region that extends from Barstow, Ludlow and Twentynine Palms in the west to the City of Needles and the Colorado River to the east, and from Desert Center to the south and the community of Chambless to the north. The Southern California Association of Governments (SCAG) Regional Statistical Areas (RSAs) 33, 34 and 54 generally define this area.

Socioeconomic Characteristics

Population

There is no population on the Cadiz Project site, and no population is projected to live on the site in the future as shown in Table 5.3-1.

**TABLE 5.3-1
SOCIOECONOMIC TRENDS AND FORECASTS FOR THE
CADIZ PROJECT AREA, SURROUNDING AREA AND REGION**

	Total			Total Change		Average Annual Percent Change	
	1990	1998	2020	1990-1998	1998-2020	1990-1998	1998-2020
Population							
Project Site	0	0	0	0	0	0	0
Surrounding Area [1]	95,300	114,900	197,957	19,600	83,057	2.4%	2.5%
Region [2]	17,029,545	18,971,481	25,925,400	1,941,936	6,953,919	1.4%	1.4%
Households							
Project Site	0	0	0	0	0	0	0
Surrounding Area [1]	33,600	38,200	65,265	4,600	27,065	1.6%	2.5%
Region [2]	5,788,123	6,139,621	8,561,400	351,498	2,421,779	0.7%	1.5%
Employment							
Project Site	0	0	0	0	0	0	0
Surrounding Area [1]	17,500	21,500	41,029	4,000	19,529	2.6%	3.0%
Region [2]	8,092,600	8,387,178	12,111,700	294,578	3,724,522	0.4%	1.7%

[1] Includes SCAG RSAs 33,34 and 54.

[2] Includes Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura Counties.

Sources: 1990 SCAG and SANDAG.

1998 Estimates by P&D Environmental and California Department of Finance.

2020 SCAG and SANDAG Adopted Regional Growth Forecasts.

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Population in the surrounding area totaled 95,300 in 1990. By 1998, population in the surrounding area had increased by almost 20,000 persons to 114,900, or 2.4 percent per year over the eight year period. According to SCAG forecasts, population in the surrounding area is anticipated to reach almost 200,000 persons by 2020, an increase of 83,000 over 1998 levels, or an average 2.5 percent per year increase.

Households

There are no residents on the Cadiz Project site and no residents are projected to live on the site in the future as shown in Table 5.3-1.

Households in the surrounding area totaled 33,600 in 1990. By 1998, households in the surrounding area had increased by 4,600 to 38,200, or 1.6 percent per year over the eight year period. According to SCAG forecasts, households in the surrounding area are anticipated to reach almost 65,300 by 2020, an increase of 27,000 over 1998 levels, or an average 2.5 percent per year increase.

Employment

There is no employment on the Cadiz Project site other than limited employment associated with the Cadiz Inc. agricultural operations and Metropolitan's Iron Mountain Pumping Plant. No employment, other than employment associated with the Cadiz Project, is projected to be present on the site in the future as shown in Table 5.3-1.

Employment in the surrounding area totaled 17,500 jobs in 1990. By 1998, employment in the surrounding area had increased by almost 4,000 jobs, to 21,500, or 2.6 percent per year over the eight year period. According to SCAG forecasts, employment in the surrounding area is anticipated to reach over 41,000 jobs by 2020, an increase of 19,500 over 1998 levels, or an average 3.0 percent per year increase.

Labor Force and Unemployment

Except for Twentynine Palms, labor force and unemployment data are not reported for the surrounding area. However, 4,970 persons in Twentynine Palms were reported in the labor force in 1998¹ of which 430 or 8.7 percent were unemployed. This unemployment rate is higher than in the regional area, which was reported at 5.4 percent for the same period.²

Labor force participation rates are defined as the percent of persons in the labor force divided by the total population in the region. Assuming labor force participation rates in the surrounding area are similar to those in the Riverside-San Bernardino County area as a whole, the civilian labor force in the surrounding area is estimated at 50,000. Assuming the unemployment rate in Twentynine Palms is similar to the overall rate in the surrounding area, then there were an estimated 4,400 unemployed persons in the labor force in 1998.

Housing Supply and Availability

Housing supply and vacancy rates are only reported for the incorporated cities in the surrounding area. According to California Department of Finance,³ in 1998, the three incorporated cities in the

¹ California Employment Development Department, Labor Market Information, March 3, 1999.

² Ibid.

³ California Department of Finance, City/County Population and Housing Estimates, January 1, 1998.

surrounding area, Blythe, Needles and Twentynine Palms, had over 2,300 vacant housing units out of a total housing stock of 14,000 units. This represents a 17 percent vacancy rate, as shown in Table 5.3-2. This vacancy rate is over twice the regional vacancy rate of 7.4 percent for the same period.

**TABLE 5.3-2
HOUSING**

City	Total Housing Units	Vacant Units	Percent Vacant
Blythe	4,609	451	9.8%
Needles	2,513	373	14.8%
Twentynine Palms	6,819	1,500	22.0%
Total	13,941	2,324	16.7%

Assuming the vacancy rate for incorporated cities in the surrounding area is indicative of the overall vacancy rate in the surrounding area, there were an estimated 7,600 vacant housing units in the surrounding area in 1998.

5.3.2 CEQA THRESHOLDS OF SIGNIFICANCE

The California Environmental Quality Act (CEQA) states that "...economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes." Therefore, under CEQA, economic or social effects of a project are generally not considered significant unless they result in a change in the physical environment or are directly caused by a change in the physical environment due to the project. However, the National Environmental Policy Act (NEPA) requires the assessment of economic and social effects regardless of whether they result in a change to the physical environment.

Therefore, a project is generally considered to have a significant impact on the environment related to socioeconomics if it:

- Induces substantial growth or concentration of population (either residents or employees);
- Displaces a large number of people; or
- Disrupts or divides the physical arrangement of an established community.

Further, SCAG views significant impacts as those that would potentially:

- Result in population, housing and employment growth inconsistent with the level of growth projected under the 1998 Regional Transportation Plan (RTP).

For a further discussion of CEQA thresholds of significance, see Section 5.20.

5.3.3 METHODOLOGY

Potential impacts of the Cadiz Project alternatives were evaluated based on a comparison of the affected environment to anticipated socioeconomic changes that would occur under the Cadiz Project alternatives. These changes were evaluated based on the defined threshold of significance criteria to determine whether the potential socioeconomic impacts of the Cadiz Project alternatives would be significant.

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5.3.4 IMPACTS

Eastern Alternative

Employment

The Eastern Alternative would generate short-term employment related to construction of the project wellfield, project spreading basins, water conveyance facilities, power distribution facilities and pumping facilities. The Eastern Alternative would also generate long-term employment opportunities related to the operations and maintenance of these facilities.

Construction Employment. According to estimates prepared for the Cadiz Project, construction of the various facilities could generate up to 1,233 jobs, as shown in Table 5.3-3.

**TABLE 5.3-3
ESTIMATED CONSTRUCTION
EMPLOYMENT FOR THE
EASTERN ALTERNATIVE**

Facility	Employees
Conveyance Facilities	400
Power Transmission Facilities	376
Pumping Facilities	160
Spreading Basins	120
Wellfield	177
Total Employment	1,233

The duration and timing of construction-related jobs would depend on the construction schedule developed by the individual contractors. Therefore, the number of construction-related jobs active at any point in time would most likely be less than the total number of potential jobs.

Employees for construction-related jobs would be expected to be drawn from the labor pool in the surrounding area and the greater San Bernardino/Riverside County area. Further, the short-term construction employment associated

with the Eastern Alternative would represent a small share of the existing and projected employment base in the surrounding area. Therefore, short-term employment generated by the Eastern Alternative would not be considered a significant adverse impact under the criteria of inducing substantial growth or concentration of population (in this case, employee population).

Operational Employment. Operation and maintenance of the Eastern Alternative facilities would generate long-term employment opportunities. According to estimates prepared for the Cadiz Project, nine full- and part-time jobs would be supported by these activities, as shown in Table 5.3-4.

**TABLE 5.3-4
ESTIMATED OPERATIONS
EMPLOYMENT FOR THE
EASTERN ALTERNATIVE**

Facility	Employees
Central Pumping Plant	4
Spreading Basins	2
Conveyance Facilities	1
Wellfield	2
Total Employment	9

The long-term employment associated with the Eastern Alternative would represent an insignificant share of the existing and projected employment base in the surrounding area. Therefore, long-term employment generated by the Eastern Alternative is not considered a significant adverse impact under the criteria of inducing substantial growth or concentration of population (in this case employee population) in the area.

Resident Population

No housing would be developed as part of the Eastern Alternative. Therefore, the Eastern Alternative would not directly contribute to population or housing growth in the surrounding area.

Employees of the Eastern Alternative (either short term construction related or long-term operations and maintenance personnel) would be expected to be drawn from the labor pool in the surrounding area and the greater San Bernardino/ Riverside area. While there is a substantial unemployed labor pool in the surrounding area (estimated at 4,400 in 1998), some employees might be hired from outside the surrounding area and move to be near their jobs.

New employees and their families that would move into the surrounding area could indirectly contribute to population growth and demand for housing in the surrounding area. However, the scale of this potential additional population growth is insignificant relative to the existing and projected population in the surrounding area. Further, because there is a substantial amount of vacant housing in the surrounding area (estimated at 7,600 units in 1998), any demand for housing generated by employees under the Eastern Alternative could be absorbed by the existing housing supply. Therefore, the Eastern Alternative is not expected to result in significant adverse impacts related to population and housing.

The Eastern Alternative would be developed in an uninhabited area and would not displace any resident or business population and would not divide any established communities.

Consistency with Growth Projected Under the 1998 Regional Transportation Plan

The level of direct population or employment growth generated by the Eastern Alternative would be insignificant relative to the overall level of growth projected for the surrounding area. The Cadiz Project implements policies in the SCAG Regional Comprehensive Plan relating to more efficient use of existing water resources, policies which are reflected in the adopted regional growth forecasts.

Economic Benefits

While not a required CEQA topic, there are several important socioeconomic benefits that could be generated by project construction activities. These potential benefits include increased short-term employment and income to businesses in the surrounding area, increased rental or sale income to homeowners in the surrounding area, and increased local tax revenues.

The first beneficial impact would be caused by expenditures for local goods and services by construction contractors. Project employees would also spend a portion of their incomes on local goods and services. These expenditures would become income for the local firms supplying the goods and services, potentially supporting additional jobs at these local firms for the duration of the construction period.

The second beneficial effect of the project would be generated from new employees that temporarily or permanently relocate to the area. These employees would be housed in new or existing rental or for-sale units, generating additional rental and sales income to local homeowners and developers. The existing vacancy rate in the area can readily meet the need for this housing.

The first two effects would cause a third beneficial impact. Additional short-term expenditures for local goods and services, as well as increased rental and sales income for housing occupied by relocating employees would generate additional sales and property tax revenues to local jurisdictions. If some short-term employees chose to live in motel/hotel accommodations, there would also be some additional transient occupancy tax revenues to local jurisdictions.

Finally, this local spending by project construction contractors and employees for goods, services and housing, becomes income to local individuals who supply the goods, services and housing.

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Then, part of these second-round incomes are also spent locally and become income for another set of individuals. This “multiplier” effect continues for several rounds of expenditures in the local economy, generating income and jobs for local residents.

While these short-term beneficial effects would be generated in the surrounding area by construction of the Cadiz Project, the level of benefit cannot be quantified until additional information is available on the potential level of expenditures for local goods and services by construction contractors, incomes that would be generated by the short-term jobs supported by project construction, and the potential number of new employees that might relocate to the surrounding area on a short- or long-term basis.

Western Alternative

Employment

Like the Eastern Alternative, the Western Alternative would generate 1,233 short-term jobs related to construction of the project wellfield, project spreading basins, water conveyance facilities, power distribution facilities and pumping facilities. The Western Alternative would also generate the same long-term employment related to the operations and maintenance of these facilities as the Eastern Alternative. Nine new long-term jobs would be created.

As with the Eastern Alternative, the employees for the construction-related jobs under the Western Alternative would be expected to be drawn from the labor pool in the surrounding area and greater San Bernardino/Riverside County area. This short-term construction employment would represent a small share of the existing and projected employment base in the surrounding area. Therefore, similar to the Eastern Alternative, short-term employment generated by the Western Alternative would not be considered a significant adverse impact.

The long-term employment associated with the operation and maintenance of the Western Alternative would represent an insignificant share of the existing and projected employment base in the surrounding area. Like the Eastern Alternative, long-term employment generated by the Western Alternative would not be considered a significant adverse impact.

Resident Population

No housing would be developed as part of the Western Alternative. Therefore, like the Eastern Alternative, the Western Alternative would not directly contribute to population or housing growth in the surrounding area.

Employees for the Western Alternative (either short-term construction-related or long-term operations and maintenance personnel) would be expected to be drawn from the labor pool in the surrounding area and greater San Bernardino/Riverside County area.

While there is a substantial unemployed labor pool in the surrounding area (estimated at 4,400 in 1998), some employees might be hired from outside the surrounding area and move to be near their jobs. However, the scale of any potential additional population growth due to employees moving into the area would be insignificant relative to the existing and projected population in the surrounding area. Further, because there is a substantial amount of vacant housing units in the surrounding area (estimated at 7,600 in 1998), any additional demand for housing generated by employees of the Western Alternative could be absorbed by the existing housing supply. Therefore, as with the Eastern Alternative, the Western Alternative would not be expected to result in

significant adverse impacts under the criteria of inducing substantial growth or concentration of population.

The Western Alternative would be developed in an uninhabited area and would not displace any resident or business population or divide any established communities.

Consistency with Growth Projected Under the 1998 Regional Transportation Plan

The level of direct population or employment growth generated by the Western Alternative would be insignificant relative to the level of overall level of growth projected for the surrounding area. This alternative implements policies in the SCAG Regional Comprehensive Plan relating to more efficient use of existing water resources, policies which are reflected in the adopted regional growth forecasts.

Economic Benefits

The short-term economic benefits of the Western Alternative would be the same as for the Eastern Alternative. The same “multiplier effect” and tax revenue benefits would arise from contractor and construction employee expenditures.

Combination Alternative

Employment

The Combination Alternative would generate the same 1,233 short-term jobs related to construction of the project wellfield, project spreading basins, water conveyance facilities, power distribution facilities and pumping facilities as the Eastern and Western alternatives. It would also generate the same nine jobs related to the operations and maintenance of these facilities.

Employees for the Combination Alternative (either short-term construction-related or long-term operations and maintenance personnel) would be expected to be drawn from the labor pool in the surrounding area and the greater San Bernardino/Riverside County area. As with the Eastern and Western Alternatives, this employment represents a small share of the existing and projected employment base in the surrounding area. Therefore, short- and long-term employment generated by the Combination Alternative would not be considered a significant adverse impact.

Resident Population

No housing would be developed as part of the Combination Alternative. Therefore, the Combination Alternative would not directly contribute to population or housing growth in the surrounding area.

As with the Eastern and Western Alternatives, employees of the Combination Alternative (either short-term construction-related or long-term operations and maintenance personnel) would be expected to be drawn from the labor pool in the surrounding area and the greater San Bernardino/Riverside County area. While there is a substantial unemployed labor pool in the surrounding area (estimated at 4,400 in 1998), some employees might be hired from outside the surrounding area and move to be near their jobs. However, the scale of this potential additional population growth would be insignificant relative to the existing and projected population in the surrounding area. Further, because there is a substantial amount of vacant housing in the surrounding area (estimated at 7,600 units in 1998), any additional demand for housing generated by employees of the Combination Alternative could be absorbed by the existing housing supply. Therefore, the

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Combination Alternative would not be expected to result in significant adverse impacts under the criteria of inducing substantial growth or concentration of population in the surrounding area.

The Combination Alternative would be developed in an uninhabited area and would not displace any resident or business population or divide any established community.

Consistency with Growth Projected Under the 1998 Regional Transportation Plan

The level of direct population or employment growth generated by the Combination Alternative would be insignificant relative to the overall level of growth projected for the surrounding area and region. As noted above, this alternative implements policies in the SCAG Regional Comprehensive Plan relating to more efficient use of existing water resources, policies which are reflected in the adopted regional growth forecasts.

Economic Benefits

The short-term economic benefits of the Combination Alternative would be the same as for the Eastern and Western alternatives. The same “multiplier effect” and tax revenue benefits would arise from contractor and construction employee expenditures.

Eastern/Canal Alternative

Employment

The Eastern/Canal Alternative would generate more short-term construction employment than the Eastern, Western or Combination alternatives (1,413 versus 1,233), due to the need for an extra construction crew to erect Intermediate Pumping Plant No.1. It would also likely generate one more long-term job than the other build alternatives.

As with the other alternatives, employees would be expected to come from the existing labor pool in the surrounding area and the greater San Bernardino/Riverside County area. This employment represents a small share of the employment base. Therefore both short- and long-term employment impacts under the Eastern/Canal Alternative would not be significant.

Resident Population

No housing would be developed as part of the Eastern/Canal Alternative. Therefore, this alternative would not directly contribute to population and housing growth in the surrounding area. Since labor is expected to be drawn largely from the existing labor supply, employment-related population growth is expected to be insignificant. There is also a substantial amount of vacant housing in the surrounding area that could absorb additional housing demand. Therefore, the Eastern/Canal Alternative would not result in significant adverse impacts under the criteria of inducing substantial growth or concentration of population in the surrounding area.

Consistency with Growth Projected Under the 1998 Regional Transportation Plan

The level of direct population or employment growth generated by the Eastern/Canal Alternative would be insignificant relative to the overall level of growth projected for the surrounding area and region. As noted above, the Cadiz Project implements policies contained in the SCAG Regional Comprehensive Plan relating to more efficient use of existing water resources policies which are reflected in the adopted regional growth forecasts.

Economic Benefits

Because of the larger number of construction employees (1,413 versus 1,233), the Eastern/Canal Alternative will have a larger short-term beneficial economic effect than the Eastern, Western and Combination Alternatives. The same type of “multiplier effect” and tax revenue benefits would occur under the Eastern/ Canal Alternative as for the Eastern, Western and Combination Alternatives, but the overall dollar value is expected to be greater.

No Project Alternative

The No Project Alternative would not require any construction and would not generate any long-term operations and maintenance employment. Therefore, the No Project Alternative would not induce any growth or concentration of population. The No Project Alternative would not require any construction and would not displace any resident or business population or divide any established community. The No Project Alternative would not result in any direct population or employment growth and would not impact the level of growth projected under the adopted 1998 Regional Transportation Plan.

5.3.5 MITIGATION MEASURES

No significant socioeconomic or growth inducing impacts would occur under the Eastern, Western, Combination or Eastern/Canal alternatives. Therefore, no mitigation is necessary.

5.3.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant adverse socioeconomic or growth impacts are anticipated from any of the Cadiz Project alternatives.