

operation of the Project would not affect any cultural resources. Mitigation and Residual Impacts

- The potential impacts of the Proposed Action are expected to be “adverse” as defined by regulations implementing the National Historic Preservation Act (36 CFR Part 800.5). The implementation of mitigation measures, in accordance with the Section 106 programmatic agreement, is expected to reduce the impacts on the informational values of archaeological and historical sites and the residual impacts to archeological and historical site information values would be below the level of NEPA significance as defined by criteria discussed in Section 3.15.2.2.
- The Hualapai Tribe concludes that impacts on their traditional landscape would be a significant as defined by NEPA. If adopted, the following measures would be implemented to reduce significant impacts on cultural resources:
- Impacts on the traditional Hualapai cultural landscape and associated archaeological sites would be mitigated by supporting participation of the Hualapai Tribe in the ongoing Salt Song Project. This Project, which is being coordinated by the American Indian Studies Program at the University of Arizona, is focused on identifying the few individuals who still know and sing the Salt Songs that describe the spiritual landscape of the Hualapai and neighboring tribes. The Project is seeking to document traditional knowledge about the songs before it disappears. The Proposed Action would disturb an archaeological site around a spring, and such springs are mentioned in the Salt Songs. The disturbance of the site and construction of the Project represent an impact on the traditional Hualapai world. The Hualapai Tribe concludes that support for preserving an aspect of traditional Hualapai culture would be a way of compensating for such impacts and a

valuable educational opportunity for tribal members.

- Construction crews would be trained formally about environmental commitments, including the importance of avoiding damage to any cultural resources that may be adjacent to construction areas and of reporting any archaeological finds.
- Even with the implementation of these measures, significant impacts would remain.

### 3.16 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

#### 3.16.1 Affected Environment

##### 3.16.1.1 Region of Influence

The socioeconomic region of influence for this Project is defined as Mohave County. This area is the geographic region within which the majority of effects are likely expected to occur. Although the majority of information is presented for the county, the description of the affected environment and the analysis of potential impacts also address conditions in Kingman and Wikieup, because both communities are within a daily commuting radius of the proposed power plant site.

Kingman is the county seat and a major population center of Mohave County. Kingman is located in northwestern Arizona at the intersection of I-40 and US 93 at an elevation of 3,400 feet. It was established in the early 1880s and was incorporated in 1952. Mohave County also includes Colorado City, Bullhead City, Lake Havasu City, and a number of unincorporated communities. Kingman is less than a one-hour drive from the proposed power plant site and provides access to a wide range of trade, public services, and community services.

##### 3.16.1.2 Existing Conditions

Existing socioeconomic conditions are described for Mohave County, Kingman and Wikieup and

do not significantly vary according to individual pipeline corridor segment.

### Population

Between 1980 and 1990, the population of Arizona increased by approximately 35 percent. By comparison, the population of the United States grew by about 9 percent over the same period. During this same period, Mohave County's population grew by 67 percent. From 1990 to 1996, the population of Mohave County increased by 42 percent, which was a larger percentage than any other Arizona county. Table 3.16-1 compares the population growth (1980 to 1999) for the county, and the cities of Kingman, Bullhead City, Colorado City, and Lake Havasu City. The Arizona Department of Economic Security estimates that through the year 2010, Mohave County will grow at an average annual rate of just over 3 percent (MCEDA 1998).

In 1990, approximately 96 percent of county residents were white, and about 4 percent were of Hispanic origin (1990 Census). This ethnic composition has changed very little since that time. For example in 1998, approximately 96 percent of county residents were white, 2 percent were Native American, and 7 percent were of Hispanic origin (Greystone 2000). These numbers total more than 100 percent because some individuals identify themselves as more than one ethnicity. The 1990 median age was 41 years for county residents and 37 years for residents of Kingman. By comparison, the 1990

population of residents near the proposed power plant site was 94 persons (Census Bureau tract 9523, -block group 1). Census tract 9523 is approximately 400 square miles in area and is bounded on the west by US 93 and on the east by the Mohave County line. Of this total, 0 percent were Native American and 20 percent were of Hispanic origin.

The unincorporated community of Wikieup, located less than 5 miles from the proposed power plant site, is primarily a residential community with an estimated current population of 250 to 300 individuals (House, personal communication, 2000). The U.S. Bureau of the Census does not conduct a more exact population count because the community is unincorporated. Interviews with several local residents suggest that the population has not increased over the past several years. This is consistent with the fact that long-term post office mailbox rentals have not increased (House, personal communication, 2000).

### Employment, Labor Force, and Local Economy

The July 2000 total civilian labor force for Mohave County was 66,125 individuals. Of this total, 2,725 individuals were unemployed, equivalent to a seasonally adjusted unemployment rate of 4.2 percent.

**TABLE 3.16-1  
STUDY AREA POPULATION GROWTH  
1980 TO 1999**

Area	1980	1990	1999	Increase 1980-1999
Arizona	2,716,546	3,665,228	4,924,350	81%
Mohave County	55,865	93,497	142,925	156%
Kingman (1)	9,257	12,722	20,000	116%
Bullhead City (1)	10,719	21,951	29,315	173%
Colorado City (1)	1,439	2,426	4,365	203%
Lake Havasu City (1)	15,909	24,363	41,045	158%

Sources: U.S. Bureau of the Census 1980, 1990; Arizona Department of Economic Security, Population Statistics Unit 1999  
(1) Located within Mohave County

By comparison, the July 2000 unemployment rate for Kingman was 2.9 percent. Major industries in the county include manufacturing, tourism, ranching, mining, and services.

Approximately 80 percent of all non-farm county employment is associated with the service sector (Mohave County and MSA Current Employment Statistics 2000). Rapidly growing industries in the county include government, hospitals, and masonry.

The largest employers in the area include county government (1,200 employees), the Kingman Regional Medical Center (728 employees), Kingman elementary schools (643 employees), and Citizens Utilities (450 employees). Other significant employers include American Woodmark Company, the General Cable Corporation, the City of Kingman, and Wal-Mart (City of Kingman 2000).

The economy of Wikieup is service-based and the community has two gas stations, two restaurants, two mini-marts, two small motels, and one school. The largest employer in town is the Mobil gas station and restaurant, with a payroll of about 10 individuals counting part-time workers.

### *Income and Wages*

In 1998, Mohave County had a *per capita* income of \$19,039, which was about 80 percent of the statewide average. Over the past 10 years, the county *per capita* income has grown by an average annual rate of about 3.6 percent (BEARFACTS, Mohave Arizona - 1988 to 1998). By comparison, the growth in income for the state was 4.4 percent over the same period. Total earnings of persons employed in Mohave County increased from \$511,701,000 in 1988 to \$1,102,379,000 in 1998, which was equivalent to an average annual growth rate of 8 percent. Total earnings is the sum of wages and transfer payments (including unemployment, disability payments, public assistance and other activities). The rapid growth in earnings for the county is attributed to strong population growth.

Average wage rates for construction workers in the county are summarized in Table 3.16-2. These worker types are highlighted because they are generally representative of workers who would be required for Project construction.

### *Housing*

The assessment of available housing units is an important step in the socioeconomic analysis because it identifies whether in-migrating workers would likely find temporary lodging. In 1980, there were 28,356 dwelling units in the county. This total grew to 50,822 units (an 80 percent increase) by 1990. Almost half of this total was single-family units and just over 40 percent were mobile homes.

In 1990, a typical three-bedroom house in Kingman rented for between \$500 and \$700 per month. One- and two-bedroom apartments

<b>Construction Worker Type</b>	<b>Average Hourly Wage</b>
Laborer	\$8.57
Carpenter	\$13.24
Electrician	\$14.59
Concrete finisher	\$14.22
Boiler maker	\$20.14
Pipe fitter	\$15.83
Iron worker	\$15.85
Truck driver / teamster	\$13.21
Mason	\$9.70
Welder	\$11.32
All other construction trades	\$13.79
Source: Arizona Department of Economic Security 2000a	

rented from about \$400 to \$600 per month (U.S. Bureau of the Census 1990). Median home values in Kingman and Bullhead City in 1990 were \$63,000 and \$97,000, respectively.

This assessment of vacant or available housing units focuses on apartments, campground spaces, hotels, and motels rather than on

residential units that are for sale. This is because skilled construction workers who come from outside the local area normally do not become permanent residents and do not purchase residential property.

Kingman Area

The City of Kingman reports that there currently are about 600 apartments in the Kingman area at large complexes (City of Kingman 2000). This total does not include apartments at many smaller apartment buildings scattered throughout the city. There are also six recreational vehicle (RV) camping areas with an estimated 377 campground spaces in the area (City of Kingman 2000). Campground spaces were counted only if they were suitable for year-round stay and had full utilities and hookups. These include the following facilities:

- Blake Ranch RV Park (60 spaces)
- Circle S Campground (50 spaces)
- Fort Beale RV Park (42 spaces)
- KOA Campground (100 spaces)
- Quality Stars RV Park (46 spaces)
- Zuni Village RV Park (79 spaces)
- Approximate Total (377 spaces)

There also are 1,736 hotel or motel rooms in the Kingman area (Kingman Area Chamber of

Commerce 2000; City of Kingman 2000). The total number of apartments, camping spaces, and motel rooms is therefore approximately 2,700 units in the Kingman area.

To identify the number of vacant (available) units, telephone contacts were made with local managers of selected apartments, campgrounds, and motels. This included managers at the three largest apartment facilities in the city (Copper Ridge, Centennial Parkview, and Kingman Station). Based on these informal interviews, it appears that the combined vacancy rate (apartments, campground spaces, hotels, and motels) currently may be in the range of 10 to 20 percent. While some apartments are nearly full, others have higher vacancies. Relatively low vacancies are attributed to current construction activity in the area associated with the Griffith Energy power plant, North Star Steel, ADOT highway projects, and residential development along the I-40 corridor.

It is estimated that there are a combined total of about 400 vacant units or camping spaces in the Kingman area. This information is summarized in Table 3.16-3.

TABLE 3.16-3 NUMBER OF VACANT HOUSING UNITS APARTMENTS, CAMP SPACES, HOTELS AND MOTELS KINGMAN AREA			
Unit Type	Total Units	Average Vacancy Rate <sup>(c)</sup>	Average Vacant Units <sup>(d)</sup>
Apartments <sup>(a)</sup>	600	10-15 %	75
RV Camp Spaces <sup>(a)</sup>	377	10-20 %	60
Hotels and Motel Rooms <sup>(b)</sup>	1,736	10-20 %	260
Total <sup>(d)</sup>	2,700	NA	400
Sources:			
(a) City of Kingman 2000			
(b) Personal communications with City of Kingman Chamber of Commerce staff and selected hotel/motel managers, 2000			
(c) Average vacancy rates are approximate and are based in part on telephone interviews with local facility managers			
(d) Total estimated units do not include smaller apartment units throughout the Kingman area. Therefore, these estimates are conservatively low.			
Some numbers are rounded.			

## Wikieup Area

Wikieup has limited space for short-term stays. Currently, there are 5 spaces at the Wikieup Trading Post and Motel, 4 rooms at the Wikieup Motel and 35 spaces at the Saguaro RV Park (also located in Wikieup). This totals only 44 motel units or camping spaces in the immediate area. It is reported that there are no vacant motel units in Wikieup and currently only five vacant spaces at the Saguaro RV Park. These facilities are near capacity because ADOT construction workers are staying in Wikieup during a US 93 widening project. There also are scattered small RV campgrounds along US 93 north of Wikieup that could accommodate a small number of construction workers.

Some local Wikieup residents have expressed an interest in developing additional RV camper spaces. The largest such future park would be called the “Bunkhouse” and potentially could have around 60 spaces with either a septic treatment system or a separate sewage treatment facility. If this Project were developed, it potentially would bring the total number of motel units and campground spaces in Wikieup to approximately 100 units/spaces. Such development is speculative and will not necessarily occur. It is unclear what portion of future housing in Wikieup would be built without construction of the Big Sandy plant.

## *Transportation and Traffic*

Mohave County is crossed by I-40 (west to Barstow and Los Angeles, California and east to Albuquerque, New Mexico); US 93 (a designated North American Free Trade Agreement route); and State Routes 66 and 68. Burlington Northern Santa Fe Railroad Company and Amtrak provide rail service. There are approximately 20 trucking companies that operate in the county. Bus transportation is provided by Amtrak. The airports in Bullhead City, Colorado City, Kingman, and Lake Havasu City provide air service.

Current traffic levels, accident rates, and safety along I-40 and US 93 are described in more detail in Section 3.17.

## *Public Utilities*

Electricity in the county is provided by Citizens Utilities Electric and Mohave Electric Cooperative (a non-profit, customer-owned utility). Citizens Utilities’ distribution service area is 7,500 square miles and includes Lake Havasu City and Kingman, as well as the surrounding areas to the north (near Hoover Dam). Citizens serves approximately 42,000 customers. Mohave Electric’s service area is 1,300 square miles in size and includes Bullhead City as well as portions of Mohave, Coconino, and Yavapai counties. Mohave currently serves 27,000 customers. The energy charge for residential service is \$0.0765 per kilowatt-hour (KWh).

El Paso Natural Gas Company, Transwestern Company, and Questar operate natural gas transmission pipelines within the boundaries of Mohave County. Gas is available to portions of Mohave County from the regulated distribution companies that serve the county (Southwest Gas Corporation and Citizens Utilities).

Water is supplied through allocations from the Colorado River and from groundwater wells. Because of the county’s proximity to the water source, water delivery costs are kept to a minimum. The Sacramento Aquifer, which is divided into three subareas, underlies the county. These subareas included the Northern Golden Valley area, central I-40 industrial corridor, and Southern Dutch Flats area. Lake Havasu City, the City of Kingman, and Bullhead City each obtain potable water from groundwater sources and water wells. As illustrated in Table 3.16-4, the communities of Lake Havasu City, Kingman, and Bullhead City have water capacity (available water) that exceeds current demand.

TABLE 3.16- 4 COMPARISON OF AVERAGE WATER DEMAND AND CAPACITY LAKE HAVASU CITY, KINGMAN AND BULLHEAD CITY			
Indicator	Lake Havasu City	Kingman	Bullhead City
Water Capacity	18 MGD	12 MGD	10 MGD
Average Water Demand	12.4 MGD	9 MGD	4.5 MGD
Source: MCEDA 1998 mgd - million gallons per day			

Wastewater treatment facilities serve Bullhead City, Kingman, Lake Havasu City, and the surrounding areas. For each city, the current treatment capability exceeds average demand by a wide margin (Greystone 2000).

Waste Management and Allied Waste, both private contractors, dispose of municipal solid waste. Tri-State Refuse and Disposal, Hargus Disposal, and Westside Services are local independent companies that provide services in various parts of the county. The City of Kingman has its own hauling operations.

Mohave County currently operates two municipal solid waste landfills. Each landfill is approximately 160 acres and has an operating life of more than 30 years. There currently are no hazardous waste treatment, storage, or disposal facilities in the county. However, there are treatment and storage facilities that are regulated by ADEQ.

### Taxes

Arizona has a general sales tax of 5 percent. Mohave County collects an additional quarter cent sales tax and the communities of Bullhead City, Kingman, and Lake Havasu City have a sales tax of 2 percent. Colorado City and Kingman have an additional 2 percent tax on hotel and motel stays. Table 3.16-5 summarizes the property tax rate breakdown for incorporated and unincorporated areas.

Property taxes are a significant source of local revenue and are based on the County Assessor's valuations. The assessed value is a percentage of the full cash value of the property with improvements, including machinery and equipment. Three property classes would likely apply to the proposed power plant and auxiliary facilities. These are summarized in Table 3.16-6.

TABLE 3.16-5 PROPERTY TAX RATES FOR 1999 (PER \$1,000 ASSESSED VALUATION)			
Entity	City Rate (\$)	Unincorporated No Fire Protection Rate (\$)	Unincorporated With Fire Protection Rate (\$)
State of Arizona (school equalization)	0.5300	0.5300	0.5300
Mohave County	1.7500	1.7500	0.5300
Mohave Community College	0.8522	0.8522	0.8522
Mohave Union High School	2.2024	2.2024	2.2024
Kingman Elementary School District 4	2.3513	2.3513	2.3515
City of Kingman	0.6703	0.0000	0.0000
Source: MCEDA 2000			

Class Number	Description of Class	Ratio of Assessed Value to Cash Value
Class 2	Telephone and telegraph companies, gas, water and electric utilities	25 percent
Class 3	Commercial and industrial property, including machinery and equipment	25 percent
Class 11	Leased improvements on government property	1 percent
Source: City of Kingman 2000		

In 1999 Mohave County established an overall 1999-2000 budget and revenue sources. The budget shows that funds from all revenue sources would total \$137,459,123, which included \$29,810,213 that was unspent and carried over from the previous year. Sources of funds included property taxes, sales taxes, highway users tax, fines and fees, Federal grants, and several other types of transfers or charges. Property taxes were targeted to reach \$27.7 million, or about 20 percent of total revenue and “fines and fees” made up about 23 percent of this total (Mohave County Office of Financial Services 2000).

Approximately 70 percent (\$95,838,000) of this projected revenue would pay for various charges, services, and personnel services (wages, overtime, and benefits). Table 3.16-7 illustrates the specific government service category that would benefit from allocated revenue. Public Works, Public Safety, and Health and Community Services would spend more than \$77 million, or about 56 percent of all available funds. In 1999, Mohave County school districts received approximately \$111 million from local, county, state, and Federal sources. Of this total, approximately 89 percent of school funds came from local or state sources.

### **Education**

There are 222 school districts in Arizona with an average daily attendance of nearly 670,530 students. In Mohave County, there are 16 school districts, the average student-teacher ratio is approximately 19 to 1, and the total enrollment

is approximately 15,000 students (MCEDA 1998). Six districts serve the principal cities and towns in the county. The Kingman Elementary School District Number 4 operates six elementary schools and one junior high school in Kingman and the surrounding area. The elementary schools are Palo Christi, La Senita, Manzanita, Hualapai, Cerbat, and Black Mountain. Total enrollment at these elementary schools is 3,351. There are more than 900 students enrolled at the Kingman Junior High

Service Category	Adopted Amount (million dollars)
General Government	12.2
Judicial	13.9
Public Safety	16.7
Public Works	46.2
Health and Community Services	14.4
Education	5.2
Culture and Recreation	5.7
Central Services	12.1
Capital Outlay	7.1
Debt Service	1.8
Contingency	2.2
<b>Total Budget</b>	<b>137.5</b>
Source: Mohave County Office of Financial Services, 2000.	

School and about 1,800 students are enrolled at the two Kingman high schools.

The Mohave County Community College is located in Kingman and is a two-year public

institution founded in 1971. The total enrollment in 1999 was 6,766 students with 60 full-time faculty and 345 part-time instructors.

The Owens-Whitney Elementary School (District Number 6) is located in Wikieup and serves the surrounding community. It serves students from kindergarten through eighth grade and had a spring 2000 enrollment of approximately 40 students (Burdsal, personal communication, 2000). The 1999 attendance rate was over 95 percent and the school has two full-time teachers and two teacher-assistants. The capacity of the school is not defined, but the school administrator indicated that the enrollment was once as high as 60 students. There currently are 10 high school students in Wikieup who attend classes in Kingman (Wikieup does not have a high school).

### *Health Care*

The county is served by four hospitals and numerous clinics or extended health care facilities. The four hospitals are the Kingman Regional Medical Center (Kingman), Bullhead Community Hospital (Bullhead City), Havasu Samaritan Regional Hospital (Lake Havasu City), and Mohave Valley Hospital (Bullhead City).

The closest emergency medical care facility to the proposed plant site is located in Kingman. The Kingman Regional Medical Center has 124 beds, with a staff of 51 physicians and 4 operating rooms. It offers a full range of therapeutic and diagnostic facilities, including air rescue and other medical services.

### *Fire Protection*

There are 17 fire districts in the county that provide services to most urban areas. Fire protection within Kingman is provided by the Kingman Municipal Fire Department, which has 4 fire stations, 35 firefighters, and 29 volunteers (City of Kingman Community Perspectives, updated January 2000). The Lake Havasu City also operates a fire department. Staff with the

Pinion-Pine Fire District report that although Wikieup is not within their fire district, they normally respond to fires, car accidents, or other emergencies along the US 93 corridor. In an emergency, firefighters could reach Wikieup in about 45 minutes.

The district also is on call to respond to wildfires throughout the state. During construction of the proposed power plant, an onsite emergency fire team hired by the construction contractor would be available to provide fire suppression at the site.

### *Law Enforcement*

Law enforcement is provided throughout the county by the Mohave County Sheriff's Department and by municipal police departments. The County Sheriff's Department has 234 employees (127 located in Kingman). There are 35 Sheriff's officers assigned to the Kingman area. The main county correction facility holds 290 individuals.

The Kingman Police Department has 48 sworn officers and 25 other staff, including communications specialists, records personnel, and other support staff. Police jail facilities are operated and maintained by the county. The department has 59 vehicles and on the average responds to 1,947 calls each month. During construction of the proposed power plant, a private security team hired by the construction contractor would be available to provide law enforcement at the plant site.

## 3.16.2 Environmental Consequences

### 3.16.2.1 Identification of Issues

Several socioeconomic issues were identified during the EIS scoping process, including the following:

- creation of jobs for local residents
- impacts on the quality of life

- increased availability of natural gas or power for local residents
- local services that could be inadequate for the construction workforce
- possibility of increased property values
- possible effects on low-income or minority residents of the Wikieup area
- sudden increase in population
- tax payments to local government
- the economic effect if some water wells dry up (or the well water flow is substantially reduced)
- effects to the Hualapai Tribe

### 3.16.2.2 Significance Criteria

The significance criteria listed below were used to determine the severity of some socioeconomic impacts; an impact would be considered significant if any of the following were to occur:

- The tax benefits to the county would be inadequate to deal with added demand on local infrastructure.
- There would be substantial changes to quality of life.
- A disproportionate effect to low income or minority populations would occur.
- The additional supply of natural gas and power would cause additional growth in the local area.

### 3.16.2.3 Impact Assessment Methods

Socioeconomic impacts were identified by first inventorying current services (police protection, fire protection, health care, housing, transportation, and other services). These service levels were then compared to the expected

increment of change caused by construction and operation of the plant and auxiliary facilities. The analysis showed whether construction-related population increases could affect the ability of some local services and infrastructure to function normally.

The assessment of some socioeconomic effects involved contacting agency officials, local business owners, and local residents in Wikieup. It also was based on a review of published studies and other literature.

Due to the regional nature of socioeconomic resources, impacts were not evaluated for each corridor segment for the Proposed Action and alternatives.

### 3.16.2.4 Actions to Reduce or Prevent Impacts Incorporated into the Proposed Action

The Proposed Action includes the following measures to reduce or prevent potential adverse environmental impacts to socioeconomics:

- Fire services would be supplied at the proposed power plant site by Caithness.
- Security services would be supplied at the proposed power plant site by Caithness.
- Water supply, wastewater treatment, and electricity would be supplied to the site by Caithness.

### 3.16.2.5 Impact Assessment

#### *Proposed Action*

#### Population

Temporary population increases would occur with construction of Phases 1 and 2 of the power plant, the natural gas pipeline, and the access road. A permanent population increase would be expected for long-term operation of the plant. The Proposed Action indicates that the average quarterly workforce for Phase 1 would be

around 350 persons and about 650 workers would be required on peak. The numbers of expected construction workers for Phases 1 and 2 are presented in Tables 3.16-8 and 3.16-9, respectively. These tables also show worker “duration” by quarter.

About one-third of all construction workers (100 individuals) needed for the proposed Project already reside in the Kingman area, and likely would be available after mid-2001 when construction begins on Phase 1. Some construction workers were (or are) involved with the Griffith Energy power plant, (located just south of Kingman), which is expected to be completed by mid-2001.

### Construction

Over the 20-month construction period for Phase 1, it is estimated that an average of approximately 250 individuals would temporarily move to Mohave County (most are assumed to stay in the Kingman area, which is calculated as 350 workers on average, less 100 workers assumed to reside in the Kingman area already). Added to this population increase would be about 35 non-local individuals (on average) who would construct the natural gas pipeline, and 15 to 20 non-local workers who would install the OPGW.

Based on experience with the construction of other power projects throughout the country, skilled craft workers normally do not bring families with them on construction assignments. Therefore, this estimate of temporary population increases does not include spouses or children. Following completion of Phase 1, most skilled craft workers would be expected to leave the area to work on other industrial or commercial projects.

During “peak” construction of Phase 1, it is expected that the workforce would reach 650 individuals. Depending on the craft type and worker specialty, some workers may be required only for a few months, while others could be needed for over one year. Of this total, about

550 workers are expected to in-migrate to the local area, which is calculated based on 650 workers less 100 individuals who already reside in the Kingman area. Based on the current lack of accommodations in Wikieup, it is assumed that nearly all workers (about 95 percent) would stay in the Kingman area and commute to the power plant site. The balance of the Phase 1 workers may attempt to find housing or camping spaces in Wikieup.

The temporary addition of 550 workers (Phase 1, on-peak) to the Kingman area would represent a population increase of about 3 percent. This assumes that all workers would stay in Kingman. An increase of this level would probably be noticeable by some residents but would not be disruptive to the community and would not create a substantial change to the quality of life, thus impacts would not be significant.

This conclusion is consistent with the short-term population increase caused by construction of the nearby Griffith Energy power plant, which involved most workers staying in Kingman (completion of that plant is expected by mid 2001). Griffith Energy, MCEDA, the Kingman Chamber of Commerce, and local apartment managers reported that Kingman readily absorbed the population for the Griffith project. A similar result is expected for the Project workforce. After completion of the proposed power plant, most skilled craft workers would leave the area for other project work.

The temporary population increase in Wikieup attributed to construction of Phase 1 would depend on the availability of local rental housing, motel units, or camping spaces. Currently, there are only 44 spaces or units in Wikieup with only about 5 vacancies (House, personal communication, 2000). Unless additional housing units or camping spaces are made available, the construction population increase is expected to be limited to a maximum of only about 15 to 20 persons (about 3 percent of the peak workforce, or 10 percent of the

**TABLE 3.16-8  
AVERAGE CONSTRUCTION WORKFORCE PER QUARTER BY CRAFT TYPE  
PHASE 1**

Starting Month	Qtr	Boiler-maker	Carpenter Mill Wright	Labor	Pipefitter	Electrician	Operator	Iron Worker	Sheet Metal Worker	Mason Insulator	Teamster	Total by Quarter
Jul-01	3rd	0	9	20	0	2	19	0	0	4	22	76
Oct-01	4th	37	41	32	7	13	15	20	0	4	11	180
Jan-02	1st	93	46	32	17	20	15	46	7	15	7	298
Apr-02	2nd	110	54	24	115	98	20	32	24	7	6	490
Jul-02	3rd	67	37	24	234	234	9	15	0	24	6	650
Oct-02	4th	17	28	19	234	195	6	6	0	37	6	548
Jan-03	1st	4	6	6	104	45	6	2	0	1	2	176
Max Workers		110	54	32	234	234	20	46	24	37	22	650

Source: Greystone 2000

**TABLE 3.16-9  
AVERAGE CONSTRUCTION WORKFORCE PER QUARTER BY CRAFT TYPE  
PHASE 2**

Starting Month	Qtr.	Boiler-Maker	Carpenter Mill Wright	Labor	Pipefitter	Electrician	Operator	Iron Worker	Sheet Metal Worker	Mason Insulator	Teamster	Total by Quarter
Jan-04	3rd	0	6	13	0	1	13	0	0	3	15	51
Apr-04	4th	25	27	21	5	9	10	13	0	3	7	120
Jul-04	1st	62	31	21	11	13	10	31	5	10	5	199
Oct-04	2nd	73	36	16	77	65	13	21	16	5	4	327
Jan-05	3rd	45	25	16	156	156	6	10	0	16	4	434
Apr-05	4th	11	19	13	156	130	4	4	0	25	4	366
Jul-05	1st	3	4	4	69	30	4	1	0	1	1	117
Max Workers		110	36	21	156	156	13	31	16	25	15	434

Source: Greystone 2000

Wikieup population). An increase of this level would be noticeable by residents but would not be disruptive to the community or create a substantial change to the quality of life, thus impacts would not be significant.

Phase 2 of the Proposed Action would require about two-thirds of the workers needed for construction of Phase 1. Therefore, the peak number of Phase 2 workers would be about 430 individuals and the average workforce would be about 240 persons. No additional construction of natural gas pipelines would be needed for Phase 2. As with Phase 1, it is expected that almost all workers would prefer to live in the Kingman area and commute each day to the site. However, if more motels, camping spaces, etc. are constructed by the estimated construction start date for Phase 2, the temporary population increase in Wikieup could be greater than estimated in this analysis.

It is important to note that construction of Phases 1 and 2 would not take place at the same time. Therefore, the construction workforces are not coincident (additive). Tables 3.16-8 and 3.16-9 illustrate the respective construction totals by quarter for each phase. Construction of each phase is expected to take approximately 20 months and there would be a break between construction of the two phases. Because it would result in less impacts than Phase 1, construction of Phase 2 would not create significant impacts.

If substantial numbers of new dwelling units or RV spaces are developed in or around Wikieup, the added population could exceed estimates shown in this analysis. This, in turn, could result in noticeable increases in traffic, congestion, noise, and dust that may affect the quality of life for some residents. Further, a sudden increase in Wikieup's population could cause local restaurants or stores to become crowded, which could inconvenience local residents who are used to a slower pace. Construction of the gas pipeline through Wikieup (corridor segment R5) would add to the short-term congestion and traffic, further negatively affecting the quality of life of Wikieup residents. Such changes to the

quality of life would be temporary and therefore not significant.

### Power Plant Operation

The Proposed Action indicates that there would be around 22 power plant operators. Most operators are assumed to live in the Kingman area. Again, depending on local accommodations, a few operators may choose to settle in Wikieup. Increases of these levels would not create a substantial change to the quality of life and would not be significant.

### *Employment, Labor Force and Local Economy*

A description of construction and operations employment was presented in the previous section because such employment is directly related to short-term population growth. In summary, construction of the proposed Project would employ up to 650 workers for Phase 1, 15 to 20 workers for OPGW installation, and about 430 workers for Phase 2. The average number of workers would be considerably less for Phase 2. This is because during construction of Phase 1, some work (such as site clearing and grading) would be performed for Phase 2. Phase 2 workforce numbers also are relatively small because both phases would share some facilities.

The workforces would consist of various skilled and semi-skilled trade workers such as boiler makers, carpenters, laborers, pipe fitters, electricians, equipment operators, iron workers, sheet metal workers, masons, and teamsters. Caithness estimates that roughly one-third of the average construction workforce (100 people) already reside in the Kingman area. Caithness also may train some local individuals to perform unskilled or semi-skilled construction tasks and also may provide appropriate training for qualified applicants for power plant operation.

Construction and operation of the proposed Project would increase short-term and long-term employment in Mohave County. As salaries are respent, benefits also would be felt in various

retail sectors, as more goods and services would be locally sold. Additional economic benefits would be generated as equipment and Project materials are bought from local companies. Positive local economic effects would be associated with worker salaries, *per diem* payments and local purchases of equipment, supplies, and material. These are described in the following section.

Based on past experience with large industrial construction projects, it is expected that around 5 to 10 percent of workers may be unskilled or semi-skilled and could be offered positions as laborers, truck drivers, small equipment operators, etc. Some area residents could benefit from these positions, since construction salaries would average two to three times that of many local service jobs.

Additional benefits to the local economy would be associated with the creation of nearby agricultural facilities located in Section 7 (about 0.5 mile southwest of the power plant site). This agricultural operation would be owned by MCEDA. Agricultural facilities may be operated by MCEDA or leased to private groups, creating local jobs, wages, and income from the sale of food products (Goodale, personal communication, 2000).

### Economic Effect of Impacts to Water Wells

Because there would not be a significant impact on the shallow groundwater resources tapped by area water wells (refer to Section 3.4) there would be no adverse economic effect to water wells.

### ***Income, Wages, and Local Purchases***

#### Worker Salaries

With an expected construction schedule of 21 months for each phase, and a combined total of about 2 million labor hours for both phases, construction salaries would be approximately \$23.5 million for Phase 1 including the OPGW, and \$15.7 million for Phase 2. Total salaries for

both phases would be \$39.1 million (Greystone 2000). Worker salaries for both phases by craft type are presented in Tables 3.16-10 through 3.16-12. Pipe fitters are projected to make \$12 million, electricians would be paid \$10 million, and boilermakers would earn \$7 million.

Construction of the natural gas pipeline would take from six to eight months and would generate salaries of about \$2.2 million. The capital cost of the pipeline is estimated to be from \$12 million to \$16 million (Van Brunt, personal communication, 2000). Pipeline construction would require about 50 workers on peak with an average of about 35 individuals.

On the average, approximately one-third of the salary total would be paid to construction workers who already live in Mohave County and the other two-thirds to workers who would temporarily move to the vicinity (the share of non-local workers would be greater during peak activity). Worker salaries would be respent locally until most of the money is spent on goods or services outside the local area. A significant number of non-local workers temporarily staying in the area may send paychecks home to families, while most salaries of local workers initially would be spent in the local area.

It is estimated that for each construction dollar spent in Arizona, approximately two dollars of total additional industry output could be generated for the state. Therefore, the additional industry output associated with Phases 1 and 2 and the pipeline would be approximately \$83 million (this sum is calculated as \$39.1 million [both phases] plus \$2.2 million [pipeline] times a factor of 2). Construction of the Project also would generate substantial increases in household income and secondary jobs, mostly in the service or retail sectors.

Plant operators would earn additional salary income. Based on a workforce of around 22 individuals, the annual salary for operators would total about \$1.3 million per year.

**TABLE 3.16-10  
AVERAGE CONSTRUCTION PAYROLL (\$ MILLION) BY CRAFT TYPE  
PHASE 1**

Starting Month	Qtr.	Boiler-Maker	Carpenter Mill Wright	Labor	Pipefitter	Electrician	Operator	Iron Worker	Sheet Metal Worker	Mason Insulator	Teamster	Total by Quarter
Jul-01	3rd	\$0.000	\$0.077	\$0.111	\$0.000	\$0.019	\$0.138	\$0.000	\$0.000	\$0.025	\$0.189	\$0.559
Oct-01	4th	\$0.492	\$0.358	\$0.181	\$0.073	\$0.125	\$0.111	\$0.209	\$0.000	\$0.026	\$0.096	\$1.671
Jan-02	1st	\$1.199	\$0.390	\$0.176	\$0.172	\$0.187	\$0.108	\$0.467	\$0.059	\$0.093	\$0.059	\$2.910
Apr-02	2nd	\$1.440	\$0.465	\$0.134	\$1.183	\$0.929	\$0.146	\$0.330	\$0.206	\$0.044	\$0.052	\$4.929
Jul-02	3rd	\$0.891	\$0.323	\$0.136	\$2.445	\$2.253	\$0.067	\$0.157	\$0.000	\$0.154	\$0.052	\$6.478
Oct-02	4th	\$0.226	\$0.245	\$0.107	\$2.445	\$1.878	\$0.044	\$0.063	\$0.000	\$0.237	\$0.052	\$5.297
Jan-03	1st	\$0.048	\$0.047	\$0.030	\$0.971	\$0.387	\$0.040	\$0.019	\$0.000	\$0.063	\$0.016	\$1.621
Total		\$4.296	\$1.905	\$0.875	\$7.289	\$5.778	\$0.654	\$1.245	\$0.265	\$0.642	\$0.516	\$23.465

Source: Caithness and Greystone 2000

**TABLE 3.16-11  
AVERAGE CONSTRUCTION PAYROLL (\$ MILLION) BY CRAFT TYPE  
PHASE 2**

Starting Month	Qtr.	Boiler-Maker	Carpenter Mill Wright	Labor	Pipefitter	Electrician	Operator	Iron Worker	Sheet Metal Worker	Mason Insulator	Teamster	Total by Quarter
Jan-04	3rd	\$0.000	\$0.051	\$0.074	\$0.000	\$0.013	\$0.092	\$0.000	\$0.000	\$0.017	\$0.126	\$0.373
Apr-04	4th	\$0.328	\$0.239	\$0.121	\$0.049	\$0.083	\$0.074	\$0.139	\$0.000	\$0.017	\$0.064	\$1.115
Jul-04	1st	\$0.800	\$0.260	\$0.117	\$0.115	\$0.125	\$0.072	\$0.311	\$0.039	\$0.062	\$0.039	\$1.941
Oct-04	2nd	\$0.960	\$0.310	\$0.089	\$0.789	\$0.620	\$0.097	\$0.220	\$0.137	\$0.029	\$0.035	\$3.288
Jan-05	3rd	\$0.594	\$0.215	\$0.091	\$1.631	\$1.503	\$0.045	\$0.105	\$0.000	\$0.103	\$0.035	\$4.321
Apr-05	4th	\$0.151	\$0.163	\$0.071	\$1.631	\$1.253	\$0.029	\$0.042	\$0.000	\$0.158	\$0.035	\$3.533
Jul-05	1st	\$0.032	\$0.031	\$0.020	\$0.648	\$0.258	\$0.027	\$0.013	\$0.000	\$0.042	\$0.011	\$1.081
Total		\$2.865	\$1.271	\$0.584	\$4.862	\$3.854	\$0.436	\$0.830	\$0.177	\$0.428	\$0.344	\$15.651

Source: Caithness and Greystone 2000

It is assumed that the salary cost for Phase 2 would be about two-thirds of the salary cost of Phase 1.

**TABLE 3.16-12  
AVERAGE CONSTRUCTION PAYROLL (\$ MILLION) BY CRAFT TYPE  
PHASES 1 AND 2**

Starting Month	Qtr.	Boiler-	Carpenter	Labor	Pipefitter	Electrician	Operator	Iron	Sheet metal	Mason	Teamster	Total by Quarter
Jan-04	3rd	\$0.000	\$0.128	\$0.185	\$0.000	\$0.032	\$0.230	\$0.000	\$0.000	\$0.042	\$0.315	\$0.932
Apr-04	4th	\$0.820	\$0.597	\$0.302	\$0.122	\$0.208	\$0.185	\$0.348	\$0.000	\$0.043	\$0.160	\$2.786
Jul-04	1st	\$1.999	\$0.650	\$0.293	\$0.287	\$0.312	\$0.180	\$0.778	\$0.098	\$0.155	\$0.098	\$4.851
Oct-04	2nd	\$2.400	\$0.775	\$0.223	\$1.972	\$1.549	\$0.243	\$0.550	\$0.343	\$0.073	\$0.087	\$8.217
Jan-05	3rd	\$1.485	\$0.538	\$0.227	\$4.076	\$3.756	\$0.112	\$0.262	\$0.000	\$0.257	\$0.087	\$10.799
Apr-05	4th	\$0.377	\$0.408	\$0.178	\$4.076	\$3.131	\$0.073	\$0.105	\$0.000	\$0.395	\$0.087	\$8.830
Jul-05	1st	\$0.080	\$0.078	\$0.050	\$1.619	\$0.645	\$0.067	\$0.032	\$0.000	\$0.105	\$0.027	\$2.702
Total		\$7.161	\$3.176	\$1.459	\$12.151	\$9.632	\$1.090	\$2.075	\$0.442	\$1.070	\$0.860	\$39.116

Source: Based on data provided by Caithness and Greystone 2000

## Per Diem Payments

Non-local construction workers typically are paid a *per diem* rate for daily housing and meal costs. Workers normally spend the *per diem* on motel accommodations, RV campground space rent, restaurants, groceries, gasoline, and entertainment. For the Project, the *per diem* rate would be approximately \$50 per worker per day. Over the two 21-month construction periods for Phase 1, including the OPGW option, and Phase 2, workers would be paid about \$12.4 million in *per diem* (this is based on an average construction workforce of 350 workers for Phase 1, 240 for Phase 2, and 35 gas pipeline workers). Additional *per diem* would be associated with pipeline construction workers.

Spending activity associated with the Project construction would have a strong, positive effect on local businesses in Mohave

County. Employment of local construction workers also would benefit the Mohave County economy through direct expenditure of their earnings on housing, food, and other locally provided goods and services. Local workers also would pay property taxes and sales taxes. A detailed projection of tax benefits to the county is presented later in this section.

## Purchases of Equipment and Materials

Caithness has not yet identified the exact equipment, materials, and other construction supplies that would be locally purchased. Money spent locally on equipment or supplies would benefit the local economy as retail businesses sell more products and eventually hire more employees. As with construction worker salaries, money spent on local equipment purchases would then be respent. During facility operation, it is estimated that Caithness would spend about \$2 million on supplies annually.

## Housing

Based upon this analysis, it is expected that even if all non-local construction workers chose to

stay in Kingman, there would be adequate rental housing, motel units, RV and camping spaces, etc. This conclusion is supported not only by a survey of the larger apartment complexes and RV parks in Kingman, but also is confirmed by the experience of Griffith project workers being able to find short-term housing in Kingman. In many instances, workers may rent a house or condominium and reduce the cost by having a roommate. This further simplifies the process of locating suitable housing.

As previously described, there are currently only about five vacant motel units or camping spaces in Wikieup and the Engineering Procurement and Construction contractor does not plan to construct worker housing. Unless additional housing is built in Wikieup, workers may have little choice but to commute to the power plant site from Kingman.

## Transportation and Traffic

The average daily traffic along US 93 between I-40 and Wikieup currently is between 5,000 and 6,000 vehicles (ADOT 2000). The Proposed Action indicates that the contractor does not plan to offer busing to the site so all workers must use personal vehicles. If all construction workers commute to the site from Kingman (and assuming that most workers carpool, with an average of about 1.5 individuals per vehicle), there would be a daily increase of about 230 two-way vehicles along US 93 (for Phase 1, this is calculated as 350 workers, on average, divided by 1.5 persons per vehicle). This would represent an increase of about 5 percent beyond current traffic levels, which would not result in a substantial change to the quality of life. It is therefore not considered to be a significant traffic increase. Transportation and traffic issues are described in more detail in Section 3.17.

## Public Utilities

A natural gas tap line to Wikieup is not part of the Proposed Action and it is unknown whether local natural gas suppliers are interested in constructing such a tap line. The decision to later construct a

service line to the town would be based on consideration of economic factors that are beyond the scope of this analysis and would be up to gas distributors in Mohave County. Compared to routing the gas pipeline along corridor segment T5, constructing the line through Wikieup (corridor segment R5) could increase the likelihood that a local gas company may later provide gas service to the town. Even so, there is no certainty that local gas service would ever be provided.

MEC could provide some construction power and station service to the proposed substation through a tap of the existing 69-kV transmission line. This service would not affect service to existing MEC customers.

### *Taxes*

The Mohave County Tax Assessor estimates that Phase 1 would generate about \$2.6 million each year in property tax revenue to the county. Of this sum, about \$1.9 million would be paid to county school districts. Caithness estimates that Phase 2 would generate an additional \$864,000 each year. Following completion of both phases, the annual combined property tax payment to the county would be approximately \$3.5 million. Tax payments would be allocated to the Owens Elementary School and could provide facilities for a local volunteer fire department. Projected property tax payments for Phases 1 and 2 are presented in Tables 3.16-13 through 3.16-15.

### *Education*

Construction and operation of the power plant would not cause adverse effects or overcrowding to Mohave County schools. This is because families are not expected to accompany non-local construction workers during construction. This assumption is consistent with current ADOT highway construction taking place south of Wikieup. The Owens Elementary School Administrator reports that ADOT workers typically have not brought families with them during construction (Burdsal, personal communication, 2000).

During plant operation, some workers and families may reside in Wikieup. However, this small increase in the number of children would readily be accommodated at the elementary school (Burdsal, personal communication, 2000).

### *Health Care*

Adequate health care facilities exist in the county to accommodate all in-migrating workers. The additional medical demands of the increased population would not cause hospital capacities to be exceeded. The construction contractor would have at least one onsite medic to treat minor injuries.

### *Fire Protection and Law Enforcement*

Fire protection and law enforcement services in Kingman would not be adversely affected by the estimated in-migration of 500 to 550 construction workers on peak. A short-term population increase of this size would represent only about 3 percent of the city's current population.

With a current staff of 35 Sheriff's officers and 48 police officers in Kingman, law enforcement in the Kingman area would not be adversely affected during power plant construction. The construction contractor also would have several security staff on site to maintain order.

### *Environmental Justice (Executive Order 12898)*

The goal of environmental justice is to ensure that all people, regardless of race, national origin, or income, are protected from disproportionate impacts of environmental hazards. To be classified as an environmental justice community, residents must be a minority and/or low-income group; excluded from the environmental policy setting and/or decision-making process; subject to a disproportionate impact from one or more environmental hazards; and experience a disparate implementation of

TABLE 3.16-13 ESTIMATED ANNUAL PROPERTY TAXES - PHASE ONE			
	Primary Rate	Percent	Amount
Mohave County	1.7500	17.57	\$455,531
Mohave Community College	0.9417	9.45	\$245,128
School Equalization	0.5123	5.14	\$133,354
Owens Elementary School	3.0500	30.82	\$793,926
Mohave Union High School	2.2490	22.58	\$585,527
Sub Total	8.5034	85.37	\$2,213,466
	Secondary Rate	Percent	Amount
MHUS Secondary	0.4718	4.74	\$122,811
Mohave Valley TV CID	0.0867	0.87	\$22,568
Fire Dist. Assistance Fund	0.1000	1.00	\$26,030
Mohave County Library District	0.2986	3.00	\$77,727
Flood Control District	0.5000	5.02	\$130,152
Sub Total	1.4571	14.63	\$379,289
<b>Total</b>	<b>9.9605</b>	<b>100.00</b>	<b>\$2,592,755</b>

Source: Mohave County Assessor, 2000

TABLE 3.16-14 ESTIMATED ANNUAL PROPERTY TAXES - PHASE 2			
	Primary Rate	Percent	Amount
Mohave County	1.7500	17.57	\$151,829
Mohave Community College	0.9417	9.45	\$81,701
School Equalization	0.5123	5.14	\$44,447
Owens Elementary School	3.0500	30.82	\$264,616
Mohave Union High School	2.2490	22.58	\$195,156
Sub Total	8.5034	85.37	\$737,748
	Secondary Rate	Percent	Amount
MHUS Secondary	0.4718	4.74	\$40,933
Mohave Valley TV CID	0.0867	0.87	\$7,522
Fire Dist. Assistance Fund	0.1000	1.00	\$8,676
Mohave County Library District	0.2986	3.00	\$25,906
Flood Control District	0.5000	5.02	\$43,380
Sub Total	1.4571	14.63	\$126,417
<b>Total</b>	<b>9.9605</b>	<b>100.00</b>	<b>\$864,165</b>

Source: Mohave County Assessor, 2000 and Caithness

TABLE 3.16-15 ESTIMATED ANNUAL PROPERTY TAXES – PHASES 1 AND 2			
	Primary Rate	Percent	Amount
Mohave County	1.7500	17.57	\$607,360
Mohave Community College	0.9417	9.45	\$326,829
School Equalization	0.5123	5.14	\$177,800
Owens Elementary School	3.0500	30.82	\$1,058,542
Mohave Union High School	2.2490	22.58	\$780,683
Sub Total	8.5034	85.37	\$2,951,214
	Secondary Rate	Percent	Amount
MHUS Secondary	0.4718	4.74	\$163,744
Mohave Valley TV CID	0.0867	0.87	\$30,090
Fire Dist. Assistance Fund	0.1000	1.00	\$34,706
Mohave County Library District	0.2986	3.00	\$103,633
Flood Control District	0.5000	5.02	\$173,531
Sub Total	1.4571	14.63	\$505,706
<b>Total</b>	<b>9.9605</b>	<b>100.00</b>	<b>\$3,456,920</b>

Source: Mohave County Assessor, 2000 and Caithness

environmental regulations, requirements, practices, and activities in their communities.

Executive Order 12898 focuses Federal attention on the environmental and human health conditions of minority and low-income populations with the goal of achieving environmental protection for all communities. The Order directed Federal agencies to develop environmental justice strategies to aid Federal agencies in identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. The Order also is intended to promote nondiscrimination in Federal programs substantially affecting human health and the environment, and to provide minority and low-income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment.

To determine if the Proposed Action may cause disproportionate effects on low-income or minority communities, a comparison was made between the construction areas, Mohave County, and the state of Arizona.

Adverse effects from pipeline construction could be caused by right-of-way clearing, the creation of equipment staging areas, and during installation.

The proposed location of the gas pipeline would follow corridor segments R1, C1, T3, C3, T4 and R5 and would pass through two Census Bureau tracts (9508 and 9523). Tables 3.16-16 and 3.16-17 summarize 1990 income and ethnicity for the proposed pipeline route and power plant site and compare local conditions with similar indicators for the county and state.

These tables illustrate that there is little difference between the percentages of non-white residents in tract 9508 compared to the countywide average. Although the percent of non-white residents in tract 9523-1 (which includes the proposed power plant site) is 20 percent, (considerably higher than the Mohave County average) it is nearly identical to the statewide figure.

The 1990 per capita income average for tract 9508 is similar to the county and state average. However, the per capita income level for tract 9523 (blocks one and two) is only about half of the county or state averages.

Although the proposed power plant site is located in a census tract with relatively high numbers of non-white residents and low incomes, a disproportionate environmental justice impact would not occur. This is because the region is rural and sparsely populated with scattered residences. Wikieup, the closest community to the proposed power plant site, is almost 4 miles to the northwest and the closest residence to the site is more than 0.5 mile away. Therefore, construction of the proposed plant and ancillary facilities would not affect low-income or minority populations.

TABLE 3.16-16 SUMMARY OF 1990 DEMOGRAPHIC CONDITIONS NATURAL GAS PIPELINE ROUTE			
Census Tract	Block Group	Non-White Residents	Per Capita Income
9508 (a)	1	7 %	\$13,877
9523 (a,b)	1	20 %	\$7,341
9523 (a)	2	3 %	\$5,505
Source: Bureau of the Census, 1990			
(a) Includes the location of the natural gas pipeline			
(b) Includes the location of the proposed power plant site			

TABLE 3.16-17 COMPARISON OF 1990 DEMOGRAPHIC CONDITIONS MOHAVE COUNTY AND ARIZONA		
Area	Non-White Residents	Per Capita Income
Mohave County	5 %	\$11,933
State of Arizona	19 %	\$13,461
Source: Bureau of the Census 1990		

There are no concentrations of Native American populations in the Project vicinity. A discussion of Native American traditional cultural resources is presented in Section 3.15, and Indian Trust Assets are discussed in Section 5.3.

### **Alternative R Gas Pipeline Corridor**

As with the Proposed Action, impacts were only assessed on a regional basis, and therefore socioeconomic effects for Alternative R would be the same as the Proposed Action. Although

this alternative would involve a somewhat different gas pipeline route than the Proposed Action, the same Census Bureau tracts would be crossed and disproportionate Environmental Justice impacts would not occur.

### **Alternative T Gas Pipeline Corridor and Communication Facilities**

As with the Proposed Action, impacts were only assessed on a regional basis, and therefore socioeconomic effects for Alternative T and the proposed communication facilities that would parallel this route would be the same as the Proposed Action. Although Alternative T would involve a somewhat different gas pipeline route compared to the Proposed Action, the same Census Bureau tracts would be crossed and disproportionate Environmental Justice impacts would not occur.

### **No-Action Alternative**

**Under the No-Action Alternative, no additional facilities would be constructed for the Project and there would be no socioeconomic impacts**

### **3.16.2.6 Mitigation and Residual Impacts**

No significant impacts would result from the implementation of the Proposed Action with the actions incorporated to reduce or prevent impacts. As a result, no additional measures to mitigate significant impacts have been identified for socioeconomics and there would be no residual significant impacts.

## **3.17 PUBLIC SAFETY AND SERVICES**

### **3.17.1 Affected Environment**

#### **3.17.1.1 Region of Influence**

The region of influence for assessing impacts on public safety and services is defined as Mohave County. Although the majority of information is presented for the county, the description of the affected environment and the analysis of