

3.19 HYDROELECTRIC POWER

3.19.1 Affected Environment

The affected hydroelectric power environment for the Coachella Canal Lining Project consists of those hydroelectric generating facilities located on the Colorado River between Lake Havasu (where river water is diverted to the Colorado River Aqueduct) and Imperial Dam (where river water is diverted to the AAC). There are four dams along this stretch of the Colorado River—from upstream to downstream they are Parker, Headgate Rock, Palo Verde, and Imperial dams. Of these, only Parker Dam and Headgate Rock Dam have hydroelectric powerplants. No other hydroelectric generating facilities would be affected by a change in the point of water delivery from Imperial Dam to Lake Havasu.

The powerplant at Parker Dam is owned and operated by Reclamation. MWD receives 50 percent of the capacity and energy produced at the Parker Dam power plant and has financial responsibility for that 50 percent. As authorized by Congress, water delivery has a higher priority than power production in the operation of the dam. Power generated by Reclamation's Colorado River powerplants is marketed by the Western Area Power Administration (WAPA) to utilities in Arizona, California, and Nevada. Headgate Rock Dam is operated by the Bureau of Indian Affairs on behalf of the Colorado River Indian Tribes.

The amount of power generated at Parker and Headgate Rock dams varies annually according to fluctuations in downstream water delivery requirements. The rated capacity of Parker Dam's powerplant is 120,000 kilowatts (kW), and the rated capacity of the powerplant at Headgate Rock Dam is 19,500 kW. In comparison, the total rated capacity of all Reclamation hydroelectric facilities in the 17 western states is 14,692,930 kW. (This total does not include Headgate Rock Dam, which is not a Reclamation facility.)

3.19.2 Significance Criteria

An alternative would have a significant impact on hydroelectric power resources if it would substantially reduce a hydroelectric facility's ability to produce power (by reducing the amount of flow through the respective dam's powerplant).

3.19.3 Environmental Consequences

Conventional Lining Alternative

This project would affect hydroelectric power generation along the lower Colorado River by reducing releases at Parker and Headgate Rock dams by approximately 26,000 acre-feet per year at each facility.

Reclamation provided the analysis that was used to estimate the effect of this alternative on federal power generation facilities along the Colorado River. Analysis of future operation under the Conventional Lining Alternative indicated that the reduction in releases at Parker Dam would reduce future average annual power generation by approximately 0.36 percent. The 0.36 percent of reduced power applies to both the 50 percent of power generation received by MWD and the 50 percent of power generation received by Reclamation. The reduction in annual power generation at Headgate Rock Dam would be approximately 0.10 percent. These reductions in power generation are minor in consideration of the total amount of power generated by these facilities, and they would not represent a significant impact.

In comparison to regional power production, the reduction in power generation would be even less noticeable. The reduction would be combined with regional power demand projections, increases of which are routinely met by expansion of power generation facilities by public and private utilities in the southwest. It is acknowledged that California has recently experienced power shortages; however, these are not considered representative of the region's long-term power production capabilities, and it is also noted that several new or expanded power plant projects are currently in development. Such expansion theoretically would result in additional consumption of fossil fuels and/or additional construction of hydroelectric facilities in the western United States. However, the effect of such expansion on the natural environment would be diffused, and the effect attributable to the canal lining would be unmeasurable and, therefore, not significant.

Underwater Lining Alternative

This alternative would reduce hydroelectric power generation along the Colorado River in generally the same way as the Conventional Lining Alternative, although this alternative would conserve approximately 1,000 fewer acre-feet per year than the Conventional Lining Alternative (due to increased seepage through the concrete lining). With less water conservation in the Coachella Canal, there would be less of a reduction in lower Colorado River flows associated with the project, and the Underwater Lining Alternative would have a correspondingly smaller impact on hydroelectric power

generation than the Conventional Lining Alternative. Based on these factors, impacts to hydroelectric power resources would not be significant.

Parallel Canal Alternative

This alternative would reduce hydroelectric power generation along the Colorado River in the same way as the Conventional Lining Alternative, and impacts to hydroelectric power resources would not be significant.

No Action Alternative

This alternative would not change hydroelectric power generation along the Colorado River.

3.20 PUBLIC SAFETY

3.20.1 Affected Environment

Public contact with the canal occurs through (illegal) fishing, incidental visitation, and nearby residential development along the Coachella Canal.

A concrete-lined canal typically poses a hazard to humans. Even though swimming is prohibited in the Coachella Canal, human drownings are a hazard. The present earthen reaches of the canal have steep-to-vertical side slopes of slippery soil along most of its length, which presently make it difficult to climb out after falling into the water. In some places, emerging vegetation at the waterline provides some assistance, but it is subject to removal during periodic canal cleaning.

3.20.2 Significance Criteria

An alternative would have a significant public safety impact if it would:

- create a significant hazard to the public or environment through the routine transport, storage, use, or disposal of hazardous materials,
- create a significant hazard to the public through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment,
- create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions associated with facility operations and/or maintenance,
- be located on a site that is known to contain hazardous materials or is listed on a site compiled pursuant to Government Code Section 65962.5, and as a result could create a significant hazard to the public or the environment,
- fail to comply with applicable codes and regulations, thereby causing substantial risk to person or property, or
- cause an environmental health safety risk that disproportionately affects children (as addressed in Executive Order 13045, see EIS/EIR Section 3.20.3).

3.20.3 Environmental Consequences

Conventional Lining Alternative

This alternative would improve safety by reducing potential drowning hazards between siphons 7 and 32 of the Coachella Canal.

Along the sections of canal proposed for lining, the flow velocity would be increased by the reduction in canal cross section. The increase would vary seasonally, depending on canal flow rates and the degree to which water is ponded behind the existing check gates. At typical flow, the maximum velocity would increase from its current maximum of 2.0 ft/s to a new maximum of 2.9 ft/s, which could tend to increase difficulty of human escape from the canal.

Over time, the side slope of a concrete-lined canal becomes slippery at the water line and below because of silt and aquatic vegetation. This slipperiness, combined with a lack of handholds above the water line, tends to make escape from the canal extremely difficult. For a swimmer, this could lead to exhaustion and drowning.

Reclamation standards for canal safety provide for the installation of safety ladders every 750 feet on each side of the canal. The ladders, typically made of welded aluminum, are bolted to the canal side slope. Additionally, cables with floats are required in front of canal structures.

A newer safety provision is to slipform ridges with rough finishes on the side slope of the canal during concrete placement. The ridges are typically placed at 18-inch intervals on both sides of the canal, beginning 9 inches from the top edge of the lining and ending below the low operating water level. The ridges would protrude 1.5 inches (or more if necessary) from the canal side slope. Tests of such ridges on the Coachella Canal In-Place Lining Prototype Project have proven reliable handholds and footholds on a 2.5:1 side slope. The ridges are also desirable for wildlife, as discussed under “Large Mammal Escape.”

These ridges, which would be installed in addition to escape ladders, are proposed to minimize the escape hazard to humans. With the incorporation of escape ridges and safety ladders into the project design, the project is expected to have a permanent beneficial effect on public safety. The escape ramps added at areas of high wildlife visitation, such as at siphon 20, would also provide improved public safety at those locations.

Public safety during construction would be accomplished through such standard measures as restricting public access to the construction site and implementing a traffic control plan. Because these measures are part of project design, they are not considered mitigation.

Consistent with Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks (62 Fed. Reg. 19885 (1997)), this alternative would not cause environmental health and safety risks that disproportionately affect children. No hazardous products or substances that would pose a health risk to children are anticipated to be generated by the Conventional Lining Alternative. The incorporation of the escape ridges, safety ladders, and (at some locations) escape ramps into the project design would benefit adults as well as children that could potentially fall into the canal. In addition, standard construction safety measures would address public safety during construction, which includes the safety of children near the project site. For these reasons, no significant or disproportionate health risks and/or safety risks to children are anticipated to result from this alternative.

Underwater Lining Alternative

This alternative would not cause significant safety impacts, and it would ultimately improve safety along the canal.

Slipformed ridges and safety ladders, as well as escape ramps, would reduce the escape hazard to less than the existing levels, as described for the Conventional Lining Alternative. The effectiveness of slip ridges has been demonstrated on a 2.5:1 side slope in the Coachella Canal In-Place Lining Prototype Project, and this is the same side slope that would result from the Underwater Lining Alternative. As with the Conventional Lining Alternative, standard construction safety practices such as restricting public access to the construction site and implementing a traffic control plan would avoid significant public safety impacts during construction.

Parallel Canal Alternative

As with the Conventional Lining Alternative, construction safety impacts would be less than significant, and the installation of escape ridges, safety ladders, and escape ramps would reduce potential drowning hazards.

No Action Alternative

This alternative would not affect safety conditions near the canal, although it would not provide the safety benefits associated with the installation of escape ridges, safety ladders, and escape ramps.

3.21 SOCIOECONOMIC ASPECTS

3.21.1 Affected Environment

The project area is located in Imperial and Riverside counties, California, and lies along the eastern side of the Salton Sea. The portion of Riverside County containing the project and Imperial County are very similar in that their economies are based on agriculture and tourism. The western part of Riverside County contains a more diversified economic base with increasing industrial, commercial, and tourist development.

Local Community Structure

Local Communities

The communities most likely to be affected by the Coachella Canal Lining Project are North Shore, Thermal, Mecca, and Coachella in Riverside County, and Brawley, Calipatria, Niland, and Bombay Beach in Imperial County, all within 15 miles of the project.

The communities of Brawley and Coachella are relatively large, and their economies are based on agriculture and tourism. These communities in the area provide the most amenities, facilities, schools, housing, and other services. The smaller communities also provide many services and amenities. Housing in all communities is available for rent or sale, including trailer or mobile home parks. Small communities close to the project area could receive construction workers with need for trailer spaces.

Riverside County

Riverside County is a large, diverse, and rapidly developing jurisdiction. High growth rates have resulted in a diversification of the economic base of the county due to the increasing industrial, commercial, and tourist development; however, agriculture is still a major industry in many parts of the county.

Riverside is the largest city in Riverside County, and there are 20 other incorporated cities in the county, including Coachella and Indio. Many smaller unincorporated communities are scattered throughout Riverside County, including Mecca, North Shore and Thermal. Closer to the canal are scattered clusters of desert landowners served by a network of paved and unpaved roads.

The population in Riverside County in 1990 was 1,170,413, mostly concentrated in the western part of the county. By 1997, the population of the County had increased by 23.7 percent to an estimated 1,447,791. The population growth rate in the State of California between 1990 and 1997 was approximately 10 percent.

Imperial County

The population of Imperial County in 1990 was 109,303. Between 1990 and 1997, the county's population increased by 29.0 percent to approximately 141,000.

The economy of Imperial County is based on irrigated agriculture. The mild winters have made the area a major supplier of winter and spring produce. Economic activity is sensitive to conditions that affect annual crop production, such as market conditions, weather, and insect predation. In 1998, Imperial Valley had 585,727 harvested acres, including double cropped acreages, worth over \$1 billion, including vegetables (\$486 million), agronomic crops¹⁰ (\$285 million), livestock (\$205 million), fruit and nuts (\$29 million), seed and nursery (\$75 million), and apiary products (\$3 million) (Imperial County University of California Cooperative Extension 2000).

Imperial County is a popular recreational area for both water and desert-based activities. Opportunities for recreation occur along the Coachella Canal and in the surrounding desert, primarily under BLM auspices. The area along the Coachella Canal is a seasonal long-term camping and desert recreation area.

The peak visitor season is generally in January and February; however, November, December, and March are also heavy visitation months for many commercial recreational vehicle parks. Vehicle types using RV parks include motor homes, trailers, pickups and vans, and tents and tent trailers.

Employment and Income

The annual average civilian labor force in 1999 in Imperial County was almost 55,800 compared to 1,442,600 in Riverside County. Unemployment has been extremely high in Imperial County, averaging 23.2 percent in 1999, compared to a much lower rate in Riverside County of 5.1 percent. Unemployment for the State was similar to Riverside County at 5.2 percent in 1999 (California Employment Development Department 2000).

¹⁰ Agronomic crops include corn, cotton, forages, peanuts, rice, sorghum, soybeans and turf.

Agricultural is the major industry in Imperial County. Portions of manufacturing, wholesale trade, and service also have significant ties to agriculture. Other significant employment sectors and contributors to the economy include government, retail trade, and winter tourism.

Within Riverside County, high growth rates have resulted in a diversification of the employment and economic sectors due to increasing industrial, commercial, and tourist development. The largest sectors are services, retail trade, government, and manufacturing. Recreation and tourism within the county is large and continues to be a dominant activity. Agriculture is also a dominant activity in many parts of the county.

According to California Employment Development Department (CEDD) data, total personal income for Imperial and Riverside counties in 1994 was \$2.0 billion and \$25.1 billion, respectively. The average per capita income in 1994 for Riverside County was \$18,543 and \$14,302 for Imperial County, compared to \$22,953 for California.

Minority and Low-Income Populations

On February 11, 1994, Executive Order 12898, "Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations" was published in the *Federal Register* (59 F.R. 7629). The Executive Order requires federal agencies to identify and address disproportionately high human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

Minorities comprise a significant proportion of the population in Riverside and Imperial counties. In 1996, the racial composition of Riverside County was 88.6 percent Anglo, 5.8 percent Black, 4.5 percent Asian or Pacific Islander, and 1.2 percent American Indian, Eskimo, or Aleut. Approximately 31.7 percent of this population were of Hispanic origin. (Hispanic can include any race; accordingly, these totals exceed 100 percent.) In Imperial County, the 1996 population was comprised of 93.0 percent Anglo, 2.9 percent Black, 2.5 percent Asian or Pacific Islander, and 1.7 percent American Indian, Eskimo, or Aleut. Of this total, approximately 72.1 percent were of Hispanic origin.

As of 1993, approximately 11.5 percent of the population in Riverside County was living below the poverty level, compared to 28.6 percent in Imperial County.

Farming

Irrigated Agriculture

CVWD irrigated lands begin about three miles northwest of siphon 32, the end of the unlined section of canal. These lands receive their water from the canal and from local groundwater withdrawals.

This project would have no permanent effect on water delivery to irrigated lands in the CVWD. Also, no effect on water deliveries during construction is anticipated.

About 10,000 acres of IID irrigated land are situated downslope from the unlined portion of the Coachella Canal, between the canal and the Salton Sea. Some parcels are as close as one-half mile to the Coachella Canal. This land receives most of its irrigation water from the East Highline Canal, which runs roughly parallel to the Coachella Canal, between one and two miles to the southwest.

In the past, it has been alleged that the seepage from the Coachella Canal has aggravated wet soil problems in certain portions of this acreage. CVWD operates the Coachella Canal at as low a depth as practical to minimize seepage.

Aquaculture

A number of “fish farmers” operate pond installations to produce fish and shrimp for commercial sale. Typically, the installations consist of a group of ponds through which well water or other water flows. Geographically, the ponds extend from the vicinity of Niland on the south to the vicinity of Dos Palmas Spring on the north. In some cases, the aquaculture makes use of geothermal heated water to keep the ponds warm in the winter. Some of these fish farms have benefitted from canal seepage because it increases their water supply.

Immigration From Mexico

Illegal immigrants who cross the international boundary with Mexico are occasionally transported by vehicle along the Coachella Canal. The Immigration and Naturalization Service’s Border Patrol, whose mission is to prevent illegal entry, maintains visual and electronic surveillance of the roads along the Coachella Canal to detect vehicles transporting illegal aliens and illegal aliens on foot.

3.21.2 Significance Criteria

An alternative would cause a significant socioeconomic impact if it would:

- induce substantial population growth in an area, either directly (for example, by producing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure),
- displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere,
- displace substantial numbers of people, necessitating the construction of replacement housing elsewhere, or
- result in disproportionately high and adverse environmental and human health impacts to minority or low-income groups, as described in Executive Order 12898, “Environmental Justice.”

3.21.3 Environmental Consequences

Conventional Lining Alternative

This alternative would result in short-term benefits to the local economy, and it would not cause any significant adverse socioeconomic impacts.

Local Community Structure

The Conventional Lining Alternative would result in beneficial impacts to the local economy by providing new, albeit short-term, employment opportunities. The project would require two types of employment: construction contractor employment and construction management employment (provided either by Reclamation or an engineering consultant). Although most contractor labor would come from the local area where housing and other services already exist, some nonlocal workers would relocate to the project area. Total contractor and management peak nonlocal employment is estimated at 62 full-time employees.

Total population influx for all nonlocal workers and their families is estimated at 133, including 30 spouses and 41 children, which is insignificant to the area. Housing requirements are estimated at 19 single family homes, 12 apartments, 16 mobile homes, 11 travel trailers, and 4 sleeping rooms. Current availability of rental, both apartments and homes, would supply the need. Due to the climate

of the area, many workers would possibly bring their own trailers and park at the jobsite in areas approved by BLM or at existing trailer or RV parks within close commuting distance to the project site.

Employment and Income

Construction contractor employment would be required over a two-year period. Project employment under this alternative would be steady throughout the year.

It is expected that 75 percent of the contractor labor would be obtained locally. Contractor employment is estimated to be 252 person years over the two-year construction period, with salaries estimated at \$12.4 million.

Total anticipated management employment required is 70 person years. Management employment is anticipated to be 85 percent nonlocal and 15 percent local. Management salaries are estimated to be \$3.6 million over the two-year construction period. Table 3-26 shows construction employment and salaries for this alternative.

**Table 3-26. Construction Employment and Salaries –
Conventional Lining Alternative**

	Labor (in labor years)		Salaries	
	Contractor	Management	Contractor ¹	Management ²
Year 1	126	35	\$6.2 million	\$1.8 million
Year 2	126	35	6.2 million	1.8 million
Total	252	70	\$12.4 million	\$3.6 million

¹ Projected contractor wages are based on California Director of Industrial Relations prevailing wage (basic hourly rate) determinations for southern California counties (June 2000)

² Based on a projected average salary of \$25/hour

Of the \$16.0 million in total salaries, it is estimated that approximately 62 percent, or \$9.8 million, would be spent in the local area. The total economic beneficial impact to the local area is estimated to be \$24.5 million, assuming a multiplier of 2.5.

Minority and Low-Income Populations

The effects of project construction (e.g., noise, air quality, traffic) would not be disproportionately focused on minority or low-income populations. Construction of the lined channel would occur in areas primarily surrounded by open space, and no residential structures would be displaced by the project. In the few areas where construction would occur near residences, construction activities would not disproportionately affect any one ethnic or income group more so than other groups that reside along the channel. The creation of \$12.4 million in contractor labor over the two-year construction period would provide a potential source of jobs for nearby minority and low-income populations.

Based on these factors, this alternative would not affect the ability of the Secretary or the CVWD to achieve environmental justice as described in Executive Order 12898. Accordingly, significant environmental justice impacts would not occur.

Farming

This alternative would preclude seepage aggravating wet soil conditions downslope from the canal.

This alternative would have no effect on the water supply for lands in the IID.

Lining the Coachella Canal may reduce the water supply of some aquaculture operations whose water supply comes partly from canal seepage, although without legal right to its use. The geohydrologic aspects of the aquaculture operations are further discussed under “Groundwater” at the beginning of this chapter, and the water rights aspects area are further discussed under “Surface Water.”

The project is not expected to have a significant effect on farming in the Coachella Valley because no farmland would be directly affected by the project.

Immigration From Mexico

The lined canal would not change the Border Patrol’s access and visibility of terrain in the area.

During construction, the activities of the contractor and his materials suppliers would make it more difficult for the Border Patrol to conduct surveillance and to detect the presence of illegal immigrants. As discussed in Section 3.17, Transportation, a traffic control plan would be

implemented to ensure safe and adequate access to all public streets during construction. The Border Patrol would not need to patrol the canal near the construction sites more intensely than at present because the presence of construction personnel would tend to discourage the presence of illegal immigrants. In consideration of these factors, impacts on Border Patrol activities would not constitute a significant impact.

Salton Sea SRA

The Conventional Lining Alternative would have negligible socioeconomic impacts on the Salton Sea SRA because it would not affect park resources or restrict access to the SRA.

Underwater Lining Alternative

This alternative would result in short-term benefits to the local economy, and it would not cause any significant adverse socioeconomic impacts.

Local Community Structure

Impacts to local communities would be minor. Most contractor labor would come from the local area where housing and other services already exist. Contractor nonlocal employment is estimated at 18 full-time employees; another 35 workers would be required during the high, short-term, labor-intensive periods. Full-time nonlocal management employment is estimated at 10; another 20 workers would be required during the peak labor-intensive period. Total peak population influx for all workers during the peak season is estimated at 135 persons, which is insignificant to the area.

Peak housing requirements are estimated at 14 single family homes, 11 apartments, 13 mobile homes, 24 travel trailers, and 21 sleeping rooms. This amount of housing would be required only for a short duration during this labor-intensive period. Experience with other projects indicates many workers would bring their own travel trailers and park at either the jobsite or at existing trailer or RV parks within close commuting distance to the project site. As housing requirements are considered to be low for these workers, there would be no significant impact.

Employment and Income

Construction contractor employment would vary throughout a three-year period. During the placement of concrete, the project is estimated to run continuously with three shifts a day and most likely for six months at a time. Under these conditions, numerous seasonal workers would be needed

during this very labor-intensive period. Estimated contractor employment would peak at 210 workers during each of the intensive six-year construction periods, as shown in Table 3-27.

Table 3-27. Construction Employment and Salaries – Underwater Lining Alternative

<u>Contractor Employment</u>				
Year	Fulltime	Additional peak employment	Peak employment	Peak Period
1	70	140	6 months	210
2	70	140	6 months	210
3	70	140	6 months	210
Total full-time work years	¹ 210	¹ 210		¹ 420

<u>Management Employment</u>				
Year	Fulltime	Additional peak employment	Peak employment	Peak Period
1	12	24	6 months	36
2	12	24	6 months	36
3	12	24	6 months	36
Total full-time work years	36	¹ 36		¹ 72

<u>Estimated Contractor and Management Salaries</u>			
Year	Contractor salaries ²	Management salaries ³	Total
1	\$6,850,000	\$1,250,000	\$8,100,000
2	6,850,000	1,250,000	8,100,000
3	6,850,000	1,250,000	8,100,000
Total	\$20,550,000	\$3,750,000	\$24,300,000

¹ This number is not additive. It represents full-time work years.

² Projected contractor wages are based on California Director of Industrial Relations prevailing wage (basic hourly rate) determinations for southern California counties (June 2000)

³ Based on a projected average salary of \$25/hour

It is expected that 75 percent of contractor labor would be obtained locally. The 25 percent nonlocal labor would learn about potential employment by reading or hearing about the project. Total anticipated management employment required would be 72 person years, averaging 36 persons during the peak periods. Management employment is estimated at 85 percent nonlocal and 15

percent local. As with construction employment, management employment would correspond to the triple shift schedule.

Of the \$24.3 million in total salaries, approximately 75 percent, or \$18.3 million, would be spent in the local area. Approximately 77 percent of contractor salaries would stay in the local area, compared to 68 percent for management workers. The remaining salaries are estimated to return to areas of nonlocal worker origin. The total economic beneficial impact to the local area is estimated to be \$45.8 million, assuming a multiplier of 2.5.

Minority and Low-Income Populations

The effects of this alternative would be the same as for the Conventional Lining Alternative. The project would not affect the ability of the Secretary or the CVWD to achieve environmental justice as described in Executive Order 12898.

Farming

The effects of this alternative would be the same as for the Conventional Lining Alternative.

Immigration From Mexico

The effects of this alternative would be the same as for the Conventional Lining Alternative.

Salton Sea SRA

As discussed for the Conventional Lining Alternative, socioeconomic impacts to the Salton Sea SRA would be negligible.

Parallel Canal Alternative

This alternative would result in short-term benefits to the local economy, and it would not cause any significant adverse socioeconomic impacts.

Local Community Structure

Impacts to local communities would be minor. Most contractor labor would come from the local area where housing and other services already exist. Peak, full-time, nonlocal, contractor

employment is estimated at 47. Peak, full-time nonlocal management employment is estimated at 44. Total peak population influx during the peak season for all workers is estimated at 195 persons, which is insignificant to the area.

Peak housing requirements are estimated at 28 single family homes, 18 apartments, 24 mobile homes, 16 travel trailers, and 5 sleeping rooms. This amount of housing would be required for only a short duration during this labor-intensive period. Experience with other projects indicates many workers would bring their own travel trailers and park at either the jobsite or at existing trailer or RV parks within close commuting distance to the project site. As housing requirements are considered to be low for these workers, there would be no significant impact.

Employment and Income

Construction contractor employment would be required over a two-year period. Project employment under this alternative would be steady throughout the year.

It is expected that 75 percent of contractor labor would be obtained locally, and contractor salaries are estimated at \$15.8 million (CY 2000 dollars). Total expected management employment required is 90 person years. Management employment is anticipated to be 85 percent nonlocal and 15 percent local; salaries are estimated to be \$4.8 million over the two-year period. Construction employment and salaries are shown in Table 3-28.

Table 3-28. Construction Employment and Salaries – Parallel Canal Alternative

	Labor - (in labor years)		Salaries	
	Contractor	Management	Contractor ¹	Management ²
Year 1	135	38	\$6.6 million	\$2.0 million
Year 2	188	52	9.2 million	2.8 million
Total	323	90	\$15.8 million	\$4.8 million

¹ Projected contractor wages are based on California Director of Industrial Relations prevailing wage (basic hourly rate) determinations for southern California counties (June 2000)

² Based on a projected average salary of \$25/hour

Of the \$20.6 million in total salaries, it is estimated that approximately 61 percent, or \$12.6 million, would be spent in the local area. The total economic beneficial impact to the local area is estimated at \$31.5 million assuming a multiplier of 2.5.

Minority and Low-Income Populations

The effects of this alternative would be the same as for the Conventional Lining Alternative. The project would not affect the ability of the Secretary or the CVWD to achieve environmental justice as described in Executive Order 12898.

Farming

The effects of this alternative would be the same as for the Conventional Lining Alternative.

Immigration From Mexico

After completion of construction, the addition of one or two additional rows of discarded earth from canal excavation, plus the discontinuance of use of the existing canal, would provide additional opportunity for illegal aliens to escape detection and may require more intense patrol activity. Because the potential required increase in patrol activity would be minor, this does not represent a significant impact. Impacts during construction would be the same as for the Conventional Lining Alternative.

Salton Sea SRA

This alternative would have negligible impacts on the Salton Sea SRA for the same reasons discussed for the Conventional Lining Alternative.

No Action Alternative

Local Community Structure

This alternative would not have an effect on community structure, and it would not provide the economic benefits to the local community that would occur with the other alternatives.

Employment and Income

This alternative would not affect employment and income; accordingly, this alternative would not provide the employment opportunities to the local workforce that would be realized by the other alternatives.

Farming

This alternative would not have an effect on farming.

Immigration From Mexico

This alternative would have no effect on illegal immigrant traffic or Border Patrol activities.

Salton Sea SRA

The No Action Alternative would not affect the Salton Sea SRA.

3.22 GROWTH INDUCEMENT

Two areas are relevant in the setting of the proposed project (1) the portions of Riverside and Imperial counties in which the project is located and (2) the southern California coastal area which is a potential user of the conserved water.

3.22.1 Affected Environment

The population of Riverside and Imperial counties is described in Section 3.19 under “Local Community Structure.” The population of southern California is discussed in Chapter 1.5 under “Water Need.”

3.22.2 Environmental Consequences

Conventional Lining Alternative

The conservation of water by this project would help California to meet its goals of reducing Colorado River use to the amount of its basic annual apportionment within the framework of the Colorado River Water Use Plan (Colorado River Board 2000b). This project is one of several proposed measures to provide replacement supplies of water for the surplus and unused Arizona/Nevada apportionment water that will become less available in the future.

There are several potential users for the conserved water, as described in Section 1.4. Under the current Law of the River, an amount of water equal to (1) 83 percent of the amount conserved would be made available to meet a portion of the needs of the California agencies with contracts for Colorado River water in accordance with their priorities under the Seven-Party Agreement (see Table 1-1 in Section 1.6.2) (P.L. 100-675, Section 204 (b)) and (2) 17 percent of the amount conserved would be furnished by the Secretary for the benefit of the La Jolla, Pala, Pauma, Rincon, and San Pasqual Bands of Mission Indians, the City of Escondido, and Vista Irrigation District in accordance with a to-be-executed settlement agreement (P.L. 106-377, Appendix B, Section 211(a)). The California normal year (basic) apportionment is only sufficient to cover the first four priorities under the Seven-Party Agreement. MWD, which holds the fifth priority, has the next right to receive water above the basic annual apportionment in an amount of 662,000 acre feet.

As discussed in Section 1.8.6, CVWD and MWD are parties to the proposed Quantification Settlement Agreement that will specify the amount of water available to CVWD and IID under the third priority of the Seven-Party Agreement. If the Quantification Settlement Agreement becomes

effective, an amount of water equal to 21,500 acre-feet of the conserved water from the Coachella Canal Lining Project would be directed to MWD. Therefore, whether the use of an amount of water equal to the amount conserved is determined under the existing Law of the River, or under the proposed Quantification Settlement Agreement, the most likely use of at least 21,500 acre-feet of the water will be delivery to MWD for use in its service area covering the majority of the southern California coastal area.

An amount of water equal to 17 percent of the amount conserved is to be furnished by the Secretary to facilitate implementation of the San Luis Rey Indian water rights settlement. The reservations of the Indian Bands that are parties to the proposed settlement are located in San Diego County, California, in the coastal southern California area, and a portion of Pala and San Pasqual Indian reservations are within the MWD service area. The City of Escondido and the Vista Irrigation District are within MWD's service area.

The availability of the conserved water from the Conventional Lining Alternative would not have a growth inducing effect on the southern California coastal area within MWD's service area. The only facility that provides for delivery of Colorado River water to this area is the Colorado River Aqueduct. The capacity of the Aqueduct is a limiting factor that is not changed by the proposed project. The Colorado River Aqueduct is capable of delivering about 1.25 million acre-feet per year after considering conveyance losses and shutdowns for maintenance purposes, and it has been operating at or near full capacity over the past 15 years. The proposed project provides one source for replacement of MWD's past use of surplus and unused Arizona/Nevada apportionment water. As the supply of surplus and unused apportionment water becomes less reliable, MWD would utilize the conserved water from this project, as well as other conservation, transfer, and exchange programs described in the Quantification Settlement Agreement, to maintain existing rates of delivery through the Aqueduct.

MWD's service area has historically experienced significant population growth and is expected to continue to grow in population. This growth has continued even as the deliveries of water by MWD have been reduced (MWD 2000). The local water agencies in southern California have accomplished this through significant improvements in conservation measures and development of local water supplies. Other water management improvements, including recycling and groundwater recovery, and improved storage, are proposed to continue to provide reliable water supplies for the growing population.

The availability of the water conserved by the proposed project as a replacement for other sources of Colorado River water does not require the construction of new community service facilities by

MWD or any other agency within MWD's service area. This conserved water provides MWD with a source to maintain the existing flow in the Colorado River Aqueduct, and no new facilities are required to continue these existing deliveries.

For each of these reasons, the Conventional Lining Alternative would not have growth inducing effects.

Underwater Lining Alternative

The effects of this alternative would be the same as for the Conventional Lining Alternative.

Parallel Canal Alternative

The effects of this alternative would be the same as for the Conventional Lining Alternative.

No Action Alternative

This alternative would not affect growth in the project area or the coastal area, nor would it help to implement California's Colorado River Water Use Plan. Additionally, this alternative would not facilitate implementation of the San Luis Rey Indian Water Rights Settlement Act.

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