4.11 ENVIRONMENTAL JUSTICE

4.11.1 Introduction

On February 11, 1994, President Clinton issued an "Executive Order on Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" designed to focus attention on environmental and human health conditions among minority populations and low-income populations, and promote nondiscrimination in programs and projects substantially affecting human health and the environment (White House 1994). The order directs specific attention to issues that derive in general from the equal protection clause of the U.S. Constitution and Title VI of the 1964 Civil Rights Act (nondiscrimination in programs and activities funded with Federal money). The order requires the EPA and all other Federal agencies (as well as state agencies receiving Federal funds) to develop strategies to address this issue. The agencies are required to identify and address any disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and/or low-income populations.

Federal Guidance

In 1997, the EPA's Office of Environmental Justice released the *Environmental Justice Implementation Plan*, supplementing the EPA environmental justice strategy and providing a framework for developing specific plans and guidance for implementing Executive Order 12898. Federal agencies received a framework for the assessment of environmental justice in the EPA's *Guidance for Incorporating Environmental Justice Concerns* in the EPA's *NEPA Compliance Analysis* in 1998. This approach emphasizes the importance of selecting an analytical process appropriate to the unique circumstances of the potentially affected populations and stresses the use of U.S. Census data for analysis. While Executive Order 12898 is not a part of the NEPA itself, environmental justice analysis has become a part of the federally guided process of analyzing impacts of undertakings subject to the NEPA.

State Guidance

While many state agencies have utilized the EPA's *Environmental Justice Implementation Plan* as a basis for the development of their own environmental justice strategies and policies, at this time the majority of California state agencies do not have specific guidance for incorporation of environmental justice assessment into their routine impact assessment processes. Environmental justice analysis by State agencies tends to follow the Federal lead but specifically derives its legal and regulatory framework from the California Constitution (equal protection); Government Code

Section 65040.12 (defines environmental justice and designates the Office of Planning and Research [OPR] as the coordinator for the State environmental justice program); Government Code Section 65040.2 (requires the OPR to develop environmental justice guidelines for local General Plans); and Public Resources Code 71110 et seq. (establishes the environmental justice program in the California Environmental Protection Agency with specific requirements for developing environmental justice policy, strategy, and guidelines). At its most general level, California law defines environmental justice as "… the fair treatment of people of all races, cultures, and income with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Gov Code Section 65040.12 and Public Resources Code Section 72000). While not a part of the CEQA itself, environmental justice analysis has become a part of the State-guided process of analyzing impacts of undertakings subject to the CEQA.

California State Lands Commission Policy

The CSLC has developed and adopted a specific Environmental Justice Policy to ensure equity and fairness in its own processes and procedures. The CSLC adopted an amended Environmental Justice Policy on October 1, 2002, to ensure that "Environmental Justice is an essential consideration in the Commission's processes, decisions and programs and that all people who live in California have a meaningful way to participate in these activities." The policy stresses equitable treatment of all members of the public and commits to considering environmental justice in its processes, decision making, and regulatory affairs. This is implemented, in part, through identification of, and communication with, relevant populations that could be adversely and disproportionately impacted by CSLC projects or programs, and by ensuring that a range of reasonable alternatives is identified that would minimize or eliminate environmental impacts affecting such populations. This discussion is provided in this document consistent with and in furtherance of the Commission's Environmental Justice Policy. The staff of the CSLC is required to report back to the Commission on how environmental justice is integrated into its programs, processes, and activities (CSLC 2002).

Methodology

The CSLC environmental justice policy does not provide a specific methodology for conducting project-specific environmental justice analysis. In the absence of specific CSLC guidance, this section of the EIR utilizes relevant portions of the California Energy Commission (CEC) staff's environmental justice methodology (CEC

methodology has been chosen as the Proposed Project is specifically linked to an energy generating station).

The relevant portions of the CEC guidance applied to this analysis include demographic screening and impact assessment. For demographic screening, census block data are used to develop a demographic screening map covering a 6-mile (10-km) radius around the Proposed Project. During impact assessment, environmental, public health, and safety disciplines define areas of potential impact within the 6-mile (10-km) radius. The demographic screening map is then used to identify populations, or pockets, of greater than 50 percent minority populations (as defined by "race" [all categories other than "white"] or "ethnicity" [only the combined "Hispanic or Latino" category] under U.S. Census terminology) or low-income populations (as defined by "poverty" under U.S. Census terminology) within each impact area. Impact areas within such populations or pockets are considered to have potential environmental justice issues.

For the impact assessment itself, existing settings are described and any relevant "unique circumstances" of the affected populations or areas are analyzed. In addition to standard impact analysis, environmental justice analysis determines whether the project would create an unavoidable significant adverse impact on the affected population(s) and, if so, considers whether the impact would be disproportionate.

Following the described guidance, this section of the EIR analyzes the distributional patterns of minority and low-income populations on a regional basis and characterizes the distribution of such populations adjacent to the project area. This analysis mainly focuses on whether the Proposed Project's impacts would have the potential to result in disproportionately high and adverse impacts to minority population(s) and/or low-income populations, thus creating an environmental justice impact.

4.11.2 Description of Resource/Environmental Setting

The project area includes the communities and populations in the immediate vicinity of the Proposed Project, which is located offshore of MCB Camp Pendleton and SONGS Unit 1, just south of the Orange County/San Diego County line. Along the coast to the north (approximately 2 miles [3 km] from the Proposed Project area at its nearest point) is the city of San Clemente within Orange County; MCB Camp Pendleton in San Diego County extends inland (east) and south of the project area. The nearest civilian community to the south along the coast is the city of Oceanside in San Diego County, approximately 14 miles (23 km) from the site of the Proposed Project. The nearest nonmilitary lands to the east of the Proposed Project are within an unincorporated portion of San Diego County, about 10 miles (16 km) from the Proposed Project area.

MCB Camp Pendleton

MCB Camp Pendleton is located in an unincorporated portion of northern San Diego County between the city of San Clemente in Orange County to the north and the city of Oceanside in San Diego County to the south. (A small, unoccupied portion of the Base is located within the boundaries of Orange County, but, for the purposes of this analysis, MCB Camp Pendleton will be addressed as part of San Diego County.) The Base encompasses 250,000 acres (101,173 ha) and includes over 17 miles (27.3 km) of coastline. It is the largest amphibious assault training facility in the country and provides training for Marine Corps, Army, and Navy personnel as well as national, State, and local agencies.

In 2000, MCB Camp Pendleton housed a total population of 36,146, including families living in base housing and active duty personnel living in barracks. While the vast majority of employment on base is in the form of uniformed military personnel, there is a substantial amount of civilian employment on base. A significant number of Base residents, including dependents of active duty military personnel, are employed in the region. It is estimated that "over 60,000 military and civilian personnel work aboard the base every day" (USMC 2004). Of the 3,412 occupied housing units on the base in 2000, 99 percent were classified by the Census as "renter occupied," consistent with the fact that housing on the base is governmentally owned.

While for most purposes the U.S. Census treats MCB Camp Pendleton as a single block group, in 2000 there were two "Census Designated Places" (utilized for population concentrations outside of incorporated communities) on the base for which detailed demographic data are available: Camp Pendleton North Census Designated Place (CDP) and Camp Pendleton South CDP. The detailed data from these two CDPs may be taken as a proxy for demographics of the larger base as a whole. In 2000, MCB Camp Pendleton North CDP had a total population of 8,197. In terms of its minority population component, 32.9 percent was non-white and 22.6 percent was Hispanic or Latino. The population of the Camp Pendleton South CDP in 2000 was 8,854, of which 37.6 percent was non-white and 19.1 percent was Hispanic or Latino individuals. These figures indicate that the overall minority population of MCB Camp Pendleton is roughly similar to San Diego County as a whole, although the county had a higher Hispanic or Latino population component. For San Diego County as a whole, 33.5 percent of the total 2000 population (of 2.8 million persons) was non-white and 26.7 percent was Hispanic or Latino. By comparison, 40.5 percent of California's 2000 population [of 33.9 million] was non-white and 32.4 percent was Hispanic or Latino.

There are, of course, other more marked differences between the populations of MCB Camp Pendleton and San Diego County as a whole, due to the fact that the population on the base is largely transient due to the military nature of the installation. Furthermore, the resident population is drawn from across the United States. For example, the Camp Pendleton North CDP population is almost 70 percent male, compared to about 50 percent for the County, and about 90 percent of the population over 16 years of age is in the labor force, compared to about 65 percent for the County.

Median household incomes for the two Camp Pendleton CDPs were $28,558 and $31,998 in 2000; whereas, the median household income for San Diego county was $47,067, reflecting differences between military and civilian employment. By comparison, median household income for California in 2000 was $47,493. Statistics for families below poverty level for both Camp Pendleton CDPs were comparable to those for San Diego County as a whole (the CDPs and the county were all between 8 and 9 percent in 1999, the year utilized in the 2000 census). Fewer individuals, however, were living below the poverty level on MCB Camp Pendleton (between 8 and 10 percent of the total population in 1999, depending on the area) than was the case for the county as a whole (over 12 percent in 1999). For California as a whole, 10.6 percent of families and 14.2 percent of individuals were living below poverty in 1999.

These data would suggest that MCB Camp Pendleton as a “community” does not encompass a disproportionately large minority population nor a disproportionately large low-income population in comparison to either County or State averages. Data at the census block group level, to allow a consideration of population “pockets” within a 6-mile (10-km) radius of the Proposed Project area, are presented in Figures 4.11-1 and 4.11-2. Population data from MCB Camp Pendleton within a 6-mile (10-km) radius falls within a single block group. In terms of percentage of total minority population (all groups other than white non-Hispanic or Latino), this block group was 43.1 percent minority in 2000 (Figure 4.11-1). This is below the 50 percent threshold for consideration as a high minority area and is less than the figure of 45.0 percent minority population for San Diego County as a whole. In terms of low-income population, 8.4 percent of individuals in this block group live below the poverty level (Figure 4.11-2), which is substantially less than the 12.4 percent figure for San Diego County as a whole. These data suggest that there is little or no potential for localized environmental justice issues for residential populations or population pockets within the 6-mile (10-km) radius geographic threshold for environmental justice issue screening.

Figure 4.11-1 Minority Population

Figure 4.11-2 Individuals Below Poverty

City of San Clemente

San Clemente is a coastal community in southern Orange County with a U.S. Census population of 49,936 in 2000. A large percentage of the City's development is residential, with the larger portion of local employment supporting commercial and retail businesses, and a majority of the local resident labor force working outside of the community. In 2000, 26,016 residents of San Clemente were in the labor force. Of the 19,395 occupied housing units in the community in 2000, 62.4 percent were owner occupied and 37.4 percent were renter occupied.

Development along the shore of San Clemente includes several beaches and a fishing pier managed by the City. San Clemente State Beach is also within the City boundaries but is managed by the CDPR. This is a popular recreation area that supports related retail businesses in the community. In addition, there are a number of exclusive, gated housing developments along the coastal bluffs adjacent to the Proposed Project lease area.

In terms of its minority population, San Clemente is only 12.1 percent non-white (compared to 35.2 percent for Orange County and 40.5 percent for California) and only 15.9 percent Hispanic or Latino (compared to 30.8 percent for Orange County and 32.4 percent for California). No single non-white population represents 3 percent or more of the total community population. While Hispanic or Latino individuals represent a larger proportion of the population, only one census tract in the community has a Hispanic or Latino population that comprises over one-half (51.4 percent) of the total population of that tract.

Median household income for San Clemente was $63,507 in 2000, in comparison to a median household income for Orange County of $58,820, and $47,493 for California. About 4.6 percent of San Clemente families were living below the poverty level in 1999, compared to 7.0 percent of families in Orange County overall (and 10.6 percent of families in the state). About 7.6 percent of individuals in San Clemente were living below the poverty level in 1999, compared to 10.3 percent of individuals in the county (and 14.2 percent of individuals in the state). Of all the census tracts within the city of San Clemente, only one has a greater proportion of families living below the poverty level than the county or state averages. This same tract also has a greater proportion of individuals living below the poverty level than either the County or State averages. It is also the same tract that has a minority population greater than 50 percent of the total population of the tract.

These data would suggest that San Clemente does not encompass a disproportionately large minority population nor a disproportionately large low-income population in comparison to either County or State averages. Indeed, San Clemente has relatively few minority or low-income residents compared to either the County or the State. Data at the census block group level, to allow a consideration of population "pockets" within a 6-mile (10 km) radius of the Proposed Project area, are presented in Figures 4.11-1 and 4.11-2. As shown in these figures, population data from San Clemente within a 6-mile (10-km) radius fall within 25 block groups. In terms of percentage of total minority population, these block groups ranged from 9.2 percent and 58.9 percent minority in 2000 (Figure 4.11-1). Only three block groups ranged between 51 percent and 60 percent minority, above the 50 percent threshold for consideration as a high minority area. No block groups had over 60 percent total minority population. Only these three census block groups had minority population components higher than 48.7 percent, the equivalent figure for Orange County as a whole. All three of these relatively high minority census block groups are geographically separated from the project area by census block groups that do not have high minority populations.

The San Clemente block groups within a 6-mile (10-km) radius of the project ranged from zero to 24.1 percent of individuals living below poverty level in any given block group (Figure 4.11-2). A total of nine census block groups had more than 10.3 percent of individuals living below the poverty level, which is the average for Orange County as a whole. As shown in Figure 4.11-2, three of these block groups were in the range of 10.1 to 12.5 percent of individuals living in poverty, five had between 15.1 and 17.5 percent, and only one had over 17.6 percent. All the relatively low-income block groups are geographically separated from the project area by census block groups with lower percentages of persons living below the poverty level. Together, these data for San Clemente suggest that there is little potential for localized environmental justice issues for residential populations or population pockets within the 6-mile (10-km) radius geographic threshold for environmental justice issue screening.

Unique Socioeconomic Circumstances/Population: Commercial Fishing

As noted in the project description, the Proposed Project would have few socioeconomic impacts in the traditional sense. The project would generate no significant local employment, as specialized crews already employed by existing contracting firms will perform the offshore work. Similarly, support service work, such as performed offshore by tugboat companies, would rely on existing entities and employees from outside the immediate area. There is some variation by alternative in the degree of shore support, however, as described in Section 4.11.6.

Due to the offshore location of the Proposed Project, it may have direct impacts on a narrow sector of the offshore linked economy – those who pursue commercial fishing in the immediate vicinity of the project area. Commercial fishing may be disrupted by temporary exclusion of fishing effort from the project area during active work periods, including a safety buffer zone around working equipment. Direct impacts to the environment, such as a turbidity plume extending out of the immediate project area, or sediment deposition on commercially productive habitat, may affect fishing success.

While no precise data are kept, based on known patterns of charter sport fishing boats in the region, very little recreational fishing is assumed to occur in the immediate vicinity of the Proposed Project, as these vessels tend to fish further offshore and in kelp beds. Commercial fisheries data suggest, however, that the area has been used successfully by commercial fishermen.

CDFG keeps data on the volume and value by species caught by commercial fishermen by location using a "fish block" system, comprised of a series of 10-minute latitude by 10-minute longitude numbered grids. The data reported by CDFG are provided by the dockside fish buyers who record the fish block number provided to them by the individual fishermen at the time of landing. The accuracy of the location data is dependent upon a number of factors; however, due to the long-term use of the fish block system, the data provide a general characterization of the catch within a given area.

As shown in Figure 4.11-3, the Proposed Project area falls within Fish Block 756. Table 4.11-1 presents summary catch data by species by year for this block for the years 1998-2003 (preliminary). As shown, the major commercially valuable species taken from this block include lobster, crabs, mackerel, prawns, sardines, and urchins. A number of these species are highly variable by year in terms of overall economic contribution. Several other species are reported harvested in one or more years during this period, but none were valued over $4,000 in any given year, and most were valued at far less for all years, with the exception of a one-time squid catch of almost $14,000 in 2002. Lobster dominates a number of years in value, but the mackerel and sardine purse seine fisheries farther offshore produced relatively high values in specific years. In addition to the commercial fish species noted in the table, occasional kelp harvesting occurs in the existing kelp beds around San Onofre. There are, however, no kelp beds in the immediate vicinity of the Proposed Project.

Figure 4.11-3 Fish Block 756

Table 4.11-1. Value of Commercial Fishing Catch by Species, Fish Block No. 756, 1998-2002 and 2003 (preliminary)

Year	All Species	Lobster	Crab	Mackerel	Prawns	Sardines	Urchins	Other*
2003 (prelim)	$212,024	$188,208	$7,657	$139	$3,740	$3,680	$6,783	$1,817
2002	$161,936	$122,402	$4,918	$0	$4,840	$7,107	$7,688	$14,981
2001	$264,174	$125,844	$9,252	$6,455	$8,947	$102,527	$3,603	$7,546
2000	$473,467	$106,561	$5,096	$98,611	$1,343	$213,354	$36,996	$11,507
1999	$340,301	$71,347	$5,562	$145,854	$14,620	$84,772	$6,055	$11,953
1998	$167,011	$79,849	$4,641	$34,470	$18,346	$15,831	$8,818	$5,056

* Several other species are reported harvested in one or more years during this period, but none were valued over $4,000 in any given year, and most were valued at far less for all years, with the exception of a one-time squid catch of almost $14,000 in 2002.

Estimates by knowledgeable individuals regarding the local fishery (K. Nielsen, personal communication 10/22/04; J. Guth, personal communication 10/27/04) suggest that the only major commercial fishery taking place in the relatively shallow (approximately 30 feet [9.1 m] deep or less at MLLW), nearshore (within 3,200 feet [975 m] of the beach) waters in the immediate vicinity of the Proposed Project is the lobster fishery. Other important fisheries in Fish Block 756, including the crab fishery, take place in water deeper than those in the immediate Proposed Project area. Examples of the fisheries that take place in deeper water are the crab (rock and spider) trap fishery, the mackerel and sardine purse seine fisheries, the prawn trap fishery, and a number of hook and line and longline fisheries that are pursued intermittently in this area. A small-scale live fish trap fishery exists in approximately the same area as the lobster fishery, but this fishery is very small and thus may be more flexible than the lobster fishery due to less competitive fishing pressure. An urchin dive fishery also occurs in the area, but reportedly not in the immediate project area, or on a regular basis.

Lobster traps in this area are reportedly typically fished in the 30-foot (9-m) to 50-foot (15-m) depth range, but this is highly variable with habitat type, and traps in the vicinity of the project may be set shallower than 10 feet (3 m) just outside the surf zone or out to about the 70-foot (21-m) depth range, depending on ocean conditions and patterns of catch success (K. Nielsen, personal communication 10/22/04). While lobster trapping elsewhere in southern California may take place in waters as deep as 200 to 300 feet (60 to 90 m), the significant lack of areas of hard bottom and structure beyond the 60- to 65-foot (18- to 20-m) depth range in the area offshore of the Proposed Project acts an effective local depth restriction for successful lobster trapping (J. Guth, personal communication 10/27/04). The conduits are buried beneath the seafloor, with water

depths that range from about 10 feet (3 m) to 30 feet (9.1 m) below the ocean surface. The terminal structures, protective riprap, and naturally occurring rocky features around the conduits are considered good lobster habitat, and those areas are reportedly specifically targeted for lobster trapping.

No commercial harvest statistics are kept for areas smaller than the fish block, so it is not possible to use existing data to quantify fishing effort in the immediate project vicinity. It is estimated, however, that relatively few fishermen target lobster specifically in the project area, but these reportedly include at least some of the region's highest producing individuals. It is estimated that approximately 6 to 10 individuals trap lobster in the immediate vicinity of the Proposed Project on a regular basis, some working from Oceanside Harbor (most of the rest of the Oceanside fleet fish further south), others working out of the Dana Point harbor area to the north (most of the rest of the Dana Point fleet fish further north), and at least one working out of both harbors (K. Nielsen, personal communication 10/22/04; J. Guth, personal communication 10/27/04). Fishing grounds are not formally assigned to individuals, but individual use patterns informally established over time may come to be respected by other fishermen and serve to distribute fishing effort. The Proposed Project area, however, is an area of intense, if localized, activity with a good deal of gear concentrated in a relatively small area that has come to be known as particularly productive on a sustained basis (J. Guth, personal communication 10/27/04). No demographic data are available for the commercial fishermen working the Proposed Project area, but informal knowledge of the industry does not suggest that participants are disproportionately drawn from either minority or low-income populations.

The proportion of Fish Block 756 within the project area is quite small. The total area of the block is 24,032.7 acres (9,725.8 ha), and the total area of a 350-foot (106.6-m) buffer around the existing conduits and terminal structures is approximately 58.7 acres (23.8 ha). This is only about two-tenths of 1 percent of the total area of the fish block. A 750-foot (228.4-m) buffer around the conduits and terminal structures would encompass about 137.0 acres (55.5 ha), which is about sixth-tenths of 1 percent of the total area of the fish block. The project area represents a greater proportion of the productive lobster fishing area than is obvious by a simple area calculation. As shown in Figure 4.11-3, about half of Fish Block 756 contains water deeper than 65 feet (20 m), beyond the typical local lobster trapping depth. Fish Block 756 contains about 12,052.5 acres (4,877.5 ha) shallower than 65 feet (20 m), or just over 50 percent of the total block, which would represent total typical lobster fishing area, based on depth alone. The 350-foot (106.6-m) buffer area around the conduits would then represent only about one-half of 1 percent of the block area shallower than 65 feet (20 m) of

depth, while a 750-foot (228.4-m) buffer would represent about 1.1 percent of the total block area shallower than 65 feet (20 m). Within the overall potential fishing area based on depth, lobster fishing is concentrated around a particular bottom structure, which is not evenly distributed along this or other areas of the coast. The project area has a bottom structure considered conducive to lobster trapping success and so is a locus of trapping effort above what would be predicted from spatial and depth relationships alone.

Figure 4.11-4 displays the type and distribution of seabed features in the immediate project area within 350-foot (106.6-m), 550-foot (167.5-m), and 750-foot (228.4-m) buffers. Survey data do not exist inside the surf zone for any of the buffers, which is an area normally unsuitable for lobster trapping. Lobster trapping is concentrated around hard bottom structure with some relief that acts as habitat and shelter, and therefore an aggregation attraction, for lobsters. Of the 53.67 acres (21.72 ha) surveyed within the 350-foot (106.6-m) buffer, about 5.96 acres (2.41 ha) or 11.1 percent of the buffer area is classified as being predominantly sediment (finer or coarser grained) and scattered rocks, and about another 15.00 acres (6.07 ha) or 27.9 percent of the area is classified as being predominantly rock or rock outcrop (with or without localized sediment ponds). Together, these classifications, which would encompass the preferred lobster trapping area (along with marginal areas, assuming that structure larger than some minimum size and higher than some minimum relief is needed to hold lobsters) comprise about 20.96 acres (8.48 ha) or about 39 percent of the area within the 350-foot (106.6-m) buffer. Of the 88.30 acres (35.73 ha) surveyed within the 550-foot (167.5-m) buffer, about 8.23 acres (3.33 ha) or 9.32 percent of the buffer area is classified as being predominantly sediment (finer or coarser grained) and scattered rocks, and about another 27.87 acres (11.28 ha) or 31.6 percent of the area is classified as being predominantly rock or rock outcrop (with or without localized sediment ponds). Together, these classifications, which would encompass preferred (and marginal) lobster trapping areas comprise about 36.1 acres (14.61 ha) or 39 percent of the area within the 550-foot (167.5-m) buffer. For the 750-foot (228.4-m) buffer, no survey data are available for about half of the area not already encompassed by the 550-foot (167.5-m) buffer, so no meaningful additional quantitative analysis of potentially preferred lobster trapping area is possible.

Unlike some other commercial fisheries that are only regulated by a size limit, lobster fishing is regulated by both a size limit and seasonal restrictions. Lobster traps may be set only during a limited season that runs from the first Wednesday in October through

Figure 4.11-4 Bottom Composition

the first Wednesday after March 15 each year. Table 4.11-2 displays information on the harvest from Fish Block 756 on a monthly basis for the 1999-2000 fishing season through to the 2003-2004 season. With the exception of February and November 2000, the consistent pattern of catch for each year indicates that October, the opening month of the season, yields the largest harvest, with the total declining each subsequent month that the season is open. While there is variability from year to year, the 5 years shown indicate that the month of October alone accounted for over 40 percent of the total seasonal catch, November accounted for about half of the October take (or 20 percent of the total catch), and the remaining 4 months of the season combined accounted for somewhat less than 40 percent. Given the seasonal nature of the fishery, the area fishermen have expressed specific concerns regarding the timing of the Proposed Project. Project activities during, or immediately preceding, the lobster season could disrupt commercial fishing efforts by displacing fishermen from established fishing grounds; by adversely impacting lobster behavior through the creation of turbid water conditions; or by disturbing lobster habitat through sediment deposition on or around bottom structure or relief features that serve to aggregate and shelter lobsters when they are not foraging.

Table 4.11-2. Value of Lobster Harvest by Month, Fish Block 756, 1999-2000 Season through 2003-2004 Season

Month	Lobster Fishing Season					Five-Season Total	Percent of Five-Season Total
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004		
October	$31,056	$24,606	$57,953	$50,913	$105,750	$270,278	42.4%
November	$16,153	$25,208	$24,219	$28,274	$30,745	$124,599	19.6%
December	$16,726	$14,520	$21,169	$26,913	$18,570	$97,898	15.4%
January	$12,703	$9,741	$10,392	$15,633	$13,282	$61,751	9.7%
February	$24,741	$8,476	$4,348	$11,638	$10,233	$59,436	9.3%
March	$4,783	$4,284	$1,561	$5,872	$6,559	$23,059	3.6%
Grand Total	$106,161	$86,834	$119,641	$139,242	$185,138	$637,021	100%

Beyond harvest statistics by fish block, the CDFG also tracks where catch is landed by port, so it is possible to determine where fish caught in Fish Block 756 are landed and thus determine where at least some secondary economic benefits from the localized fishery accrue. Dana Point and Newport Beach, in Orange County, and Oceanside, in San Diego County, are the closest ports to the project area, and the only ports that have taken lobster landings on a regular basis from the fish block encompassing the project area (Fish Block 756) since 1998. Table 4.11-3 displays the pattern of lobster landings

for these ports from Fish Block 756 for the years 1998-2003 in terms of total value. Table 4.11-4 displays analogous information in terms of volume of harvest. As shown, Dana Point strongly dominated other ports in terms of annual value and volume of lobster landed from Fish Block 756 between 1998 and 2003, nearly quadrupling the landings of the next closest port in the year with the least variation (1999) and exceeding the second place port by more than ninefold in 2002, the year with the greatest variation.

Table 4.11-3. Value of All Species Landings, Value of Lobster Landings, and Value of Lobster Landings from Fish Block 756 by Year and by Port, 1998-2002 and 2003 (preliminary)

Year	Value of Harvest, All Species	Value of Lobster Harvest	Value of Lobster Landings by Port			
			Dana Point	Newport	Oceanside	Other*
2003 (prelim)	$212,024	$188,208	$146,315	$32,150	$7,001	$2,742
2002	$161,936	$122,402	$105,556	$9,516	$7,331	$0
2001	$264,174	$125,844	$111,302	$14,542	$0	$0
2000	$473,467	$106,561	$86,108	$18,051	$2,402	$0
1999	$340,301	$71,347	$50,125	$13,547	$547	$7,128
1998	$167,011	$79,849	$62,603	$13,438	$2,698	$1,111

* In 2003, "other" landings of lobster from Fish Block 756 were made in Hermosa. In 1999, "other" landings occurred in Point Loma, San Diego, and Huntington. In 1998, "other" landings occurred in Catalina, Hermosa, and San Diego.

Table 4.11-4. Volume of All Species Landings, Volume of Lobster Landings, and Volume of Lobster Landings from Fish Block 756 (in pounds) by Year and by Port, 1998-2002 and 2003 (preliminary)

Year	Volume of Lobster Harvest	Volume of Lobster Landings by Port			
		Dana Point	Newport	Oceanside	Other*
2003 (prelim)	25,363	19,378	4,589	989	406
2002	16,925	14,348	1,572	1,005	0
2001	17,447	15,294	2,153	0	0
2000	13,794	10,998	2,467	329	0
1999	9,365	6,582	1,721	76	985
1998	12,902	9,956	2,232	418	188

* In 2003, "other" landings of lobster from Fish Block 756 were made in Hermosa. In 1999, "other" landings occurred in Point Loma, San Diego, and Huntington. In 1998, "other" landings occurred in Catalina, Hermosa, and San Diego.

Beyond the individual fishermen directly engaged in the lobster harvest, port of landing communities are the locus of economic activity associated with the fishery. These communities vary in the amount of economic activity they capture or "leak" based on the location of subsequent distribution, processing, and marketing, as well as the location of fishery supply and support businesses. Nevertheless, characterizing the landings from the project area fish block relative to overall landings of the relevant ports is one straightforward if simplistic way to gauge the relative economic contribution of the harvest taken from any specific area.

Tables 4.11-5, 4.11-6, and 4.11-7 present data on the total value of port landings and the value of lobster landings for each of these ports, along with the total value of the Fish Block 756 lobster harvest for comparative purposes, for 1998-2002, and preliminary data from 2003. This allows an assessment of the relative dependency of the port on lobster from the project area in terms of both overall commercial fishery landings as well as specific lobster landings. For Dana Point, as shown in Table 4.11-5, lobster from Fish Block 756 accounted for about 13 percent of lobster landings annually from 1998-2000, but this figure climbed above 20 percent in 2001 and 2002 and reached 36 percent in 2003 (according to preliminary figures). This is a substantial portion of the lobster harvest, which, in turn, is a substantial portion of total port landings. Lobster landings from Fish Block 756 alone accounted for 8 to 13 percent of the annual value of landings of all species combined for Dana Point for the period 1998-2003.

For Newport Beach, as shown in Table 4.11-6, landings from Fish Block 756 accounted for between 6 and 10 percent of all lobster landings annually for the years 1998-2002 (and between 2 and 3 percent of the value of all catch for all species landed at the port during these years). Preliminary data from 2003, however, show an increased relative importance of landings from Fish Block 756 as they accounted for 18 percent of total port lobster landings (and about 6 percent of the total value of all fish of all species landed at the port that year). For the port of Oceanside, as shown in Table 4.11-7, lobster landed from Fish Block 756 accounted for 3 percent or less of total port lobster landings annually for the years 1998-2003 (and far less than 1 percent of total value of combined landings of all species at the port for these same years).

The relative economic contribution of these ports near the project area to the regional fishing economy may be gauged by examining more aggregated data. The ports that have taken lobster from Fish Block 756 fall into two CDFG regional landings areas: the San Diego area (Oceanside) and the Los Angeles area (Dana Point and Newport Beach). For 2002, the most recent year for which final data are available, landings of lobster in all San Diego area ports were valued at $1,395,649, and total landings of all

Table 4.11-5. Value of Annual Port Landings for All Species, All Lobster, and Lobster from Fish Block 756, 1998-2002 and 2003 (preliminary) for the Port of Dana Point

Year	Value of Port Landings All Species (from any area)	Value of Port Landings Lobster Only (from any area)	Value of Port Landings of Lobster from Fish Block 756	Percent of Total Lobster Harvest
2003 (prelim)	$1,151,256	$402,022	$146,315	36%
2002	$1,092,734	$511,046	$105,556	21%
2001	$1,027,303	$472,440	$111,302	24%
2000	$1,074,862	$639,704	$86,108	13%
1999	$664,539	$372,952	$50,125	13%
1998	$705,256	$492,023	$62,603	13%

Table 4.11-6. Value of Annual Port Landings for All Species, All Lobster, and Lobster from Fish Block 756, 1998-2002 and 2003 (preliminary) for the Port of Newport Beach

Year	Value of Port Landings All Species (from any area)	Value of Port Landings Lobster Only (from any area)	Value of Port Landings of Lobster from Fish Block 756	Percent of Total Lobster Harvest
2003 (prelim)	$546,907	$176,997	$32,150	18%
2002	$563,243	$169,784	$9,516	6%
2001	$521,765	$142,137	$14,542	10%
2000	$557,245	$188,762	$18,051	10%
1999	$674,208	$191,355	$13,547	7%
1998	$593,776	$149,924	$13,438	9%

Table 4.11-7. Value of Annual Port Landings for All Species, All Lobster, and Lobster from Fish Block 756, 1998-2002 and 2003 (preliminary) for the Port of Oceanside

Year	Value of Port Landings All Species (from any area)	Value of Port Landings Lobster Only (from any area)	Value of Port Landings of Lobster from Fish Block 756	Percent of Total Lobster Harvest
2003 (prelim)	$1,485,649	$352,060	$7,001	2%
2002	$1,311,069	$256,782	$7,331	3%
2001	$1,294,728	$359,186	$0	0%
2000	$959,132	$326,340	$2,402	1%
1999	$1,799,439	$69,869	$547	1%
1998	$511,798	$185,275	$2,698	1%

species were valued at $5,556,209. For Los Angeles area ports, lobster landings in 2002 were valued at $1,338,585, while total landings for all species were valued at $23,286,481.

4.11.3 Regulatory Setting

The regulatory setting has been described in Section 4.11.1.

4.11.4 Significance Criteria

An environmental justice impact would be considered significant if the Proposed Project would:

- disproportionately result in significant adverse environmental, public health, or safety impacts to minority and/or low-income populations at levels exceeding either the 50 percent threshold or meaningfully greater than the corresponding medians for the county(s) where the project is located; or

- result in a disproportionate decrease in the employment and economic base of minority and/or low-income populations (including the commercial fishing industry) within the county(s) and/or immediately surrounding cities where the project is located.

4.11.5 Impact Analysis and Mitigation

This section evaluates the Proposed Project to determine whether the disposition would create disproportionate environmental, public health, and/or safety impacts on minority populations or low-income populations. This includes impacts to employment and commercial activities in the project and study areas. The evaluation is largely qualitative.

Impact EJ-1. Environmental, Public Health, and Safety Effects on Minority Populations and Low-Income Populations

The Proposed Project would not have any disproportional or significant environmental, public health, or safety effects on minority populations or low-income populations (Class III).

The Proposed Project would involve removal of the terminal structures and manhole risers attached to buried cooling water conduits, offshore of MCB Camp Pendleton. The project site is not located within or in proximity to residential minority populations and/or low-income populations. No public health or safety issues that extend beyond the

immediate project area were identified, e.g., vessel safety and navigation concerns are limited to the immediate vicinity of the project at sea; therefore, no public health or safety issues are likely to accrue to local residential populations (Class III). No mitigation is required.

Minority populations and/or low-income populations may make recreational use of nearby areas that have views of the project site, including use of recreational sport fishing charters and use of designated onshore recreational areas, including San Onofre State Beach. These would be transient as opposed to residential uses, and they would be equally open to persons of all demographic groups and economic strata. Therefore, no disproportionate impact to minority populations and/or low-income would result (Class III). No mitigation is required.

Impact EJ-2. Employment and Economic Effects on Minority Populations and Low-Income Populations

The Proposed Project would not have any disproportional or significant employment or economic effects on minority populations or low-income populations (Class III).

The Proposed Project would generate minimal new employment over a short time period. It would take approximately 4 months and would involve fewer than 20 construction workers and divers, virtually all of whom would be existing, specialized employees of firms from outside the immediate area; therefore local employment would not be significantly impacted (Class III). Project personnel would be employed from the regional workforce and would utilize local accommodations such as hotels/motels, as necessary, on a temporary basis. No relocation of persons would be required; therefore, housing supply within the region would not be impacted (Class III). No mitigation is required.

While some goods and services may be purchased locally as a result of support activities, these expenditures are likely to be minor; therefore economic impacts will not be significant (Class III). Given the small number of employees involved and the short construction timeframe for disposition, the Proposed Project in general would have a minor beneficial but not significant effect on employment, income, and economic activity in the study area. This minor level of beneficial impact is unlikely to induce demographic or economic growth. A number of existing companies in southern California are capable of meeting the requirements of this project. Los Angeles and San Diego counties are major economic regions with large labor forces providing adequate labor pools to meet the project employment without the need to recruit new employees to the region. As a result, no new growth would be generated by this

project, and there would be no growth-related impacts (Class III). No mitigation is required.

Impact EJ-3. Environmental Justice Effects on Commercial Fishermen

The Proposed Project would not have any disproportional or significant effects on minority populations or low-income populations engaged in commercial fishing (Class III).

Fishermen represent a special population with respect to potential impacts resulting from the Proposed Project. The offshore portion of the project area is used by lobster fishermen; some set traps in the immediate project vicinity. Deeper waters offshore of the project area are used for a variety of other commercial fishing activities, but it is very unlikely that there would be project-related disruptions of these fisheries. There could be temporary disruptions to commercial lobster fishing during terminal structure and manhole demolition and removal activities. To the extent that lobsters use the terminal structures and associated riprap scheduled for removal as habitat, there would be a minor long-term net loss of lobster habitat under the Proposed Project.

Only a small portion of Fish Block 756 would be impacted by the Proposed Project, and adverse impacts are likely to be less than significant for the lobster fishery at either the fish block or the landing port level. However, adverse impacts may accrue to individual fishermen, as they may be proportionately more reliant on the project area than others. Furthermore, as noted in the Significance Criteria in Section 4.2, Commercial Fishing, substantial interference with commercial fisheries in the disposition area for a period of 1 month or longer during active fishing seasons would be considered a significant impact.

The exclusion of commercial fishermen from a proven fishing ground during disposition could impact their livelihood if they did not have an equally productive alternate site to fish during that period, and/or if they could not do so as efficiently as at their existing grounds. Beyond physical exclusion from fishing grounds due to project barge and vessel activity, lobster fishermen could also experience adverse impacts if the project either removed habitat or temporarily impaired habitat through project-related turbidity and sediment deposition on otherwise productive lobster habitat.

For the purposes of this analysis, three different buffer zones were created to display what may be considered the maximum reasonably foreseeable spatial extent of these types of fishery interference. Assuming a maximum project bottom disturbance footprint of 150 feet (45.7 m) around the conduits, the water quality analysis suggests that

sedimentation could take place up to about 65 feet (19.8 m) beyond the disturbance area itself, and the turbidity plume could extend about three times that distance, or about 195 feet (59.4 m). A conservative buffer encompassing the maximum direct disturbance, sedimentation, and turbidity impacts would then extend approximately 350 feet (106.6 m) outward from the conduits and terminal structures. A buffer of this size, as shown in Figure 4.11-4, conservatively extending from the seawall to 350 feet (106.6 m) offshore of the farthest terminal structure, would encompass a total of 58.7 acres (23.7 ha). The actual area of direct impact within this maximum extent buffer would depend on the specific area(s) disturbed and the volume, grain size, and deposition/placement of the excavated materials as well as sea conditions at the time, including surge and current. A conservative safety exclusion zone buffer was created by utilizing the 1,100-foot (355.0-m) anchor spread zone (550 feet [167.5 m] on either side of the conduits) to characterize the footprint of direct activities. This area, also shown in Figure 4.11-4, would add another 37.7 acres (15.3 ha) to the project buffers, so that together with the enclosed disturbance, sedimentation, and turbidity buffer area, the combined buffer would encompass a total of 96.37 acres (39.0 ha); adding a 200-foot (60.9-m) vessel exclusion safety zone around the direct activities/anchor spread zone would extend the buffer to a total of 750 feet (228.4 m) and enlarge the overall buffer by 40.7 acres (16.5 ha), for a total combined area of 137.0 acres (55.5 ha). This estimated impact area compares to an actual impact area resulting from the exclusion zone component that would be determined by the actual placement, and duration of placement, of the anchor spread and the extent of observation of a vessel safety exclusion zone.

The potential for these impacts could be avoided altogether by timing relevant project activities to avoid lobster season and several weeks immediately preceding the lobster season. If the season cannot be avoided in its entirety, the potential for adverse impacts could be minimized at least in part by avoiding the most productive months at the beginning of lobster fishing season. The specific demographic composition of the group of fishermen in question is unknown, but given anecdotal knowledge of the fishery, it is unlikely that lobster fishery impacts would result in environmental justice impacts.

The Proposed Project would involve only short-term disposition activities; there would be no long-term project actions or adverse effects from project implementation.

Based upon the factors presented above, the Proposed Project would not result in a significant environmental justice impact (Class III). No mitigation is required. (See Section 4.2, Commercial Fishing, for discussion of other potential commercial fishing impacts and mitigation.)

Table 4.11-8 summarizes the environmental justice impacts and mitigation measures.

Table 4.11-8. Summary of Environmental Justice Impacts and Mitigation Measures

Impact	Mitigation Measures
EJ-1: Environmental, public health, and safety effects on minority populations and low-income populations.	No mitigation required
EJ-2: Employment and economic effects on minority populations and low-income populations.	No mitigation required
EJ-3: Environmental Justice effects on commercial fishermen	No mitigation required

4.11.6 Impacts of Alternatives

4.11.6.1 Complete Removal of Conduits Alternative

Impact EJ-ALT-1. Environmental, Public Health, and Safety Effects on Minority Populations and Low-Income Populations

This alternative would not have any disproportional or significant environmental, public health, or safety effects on minority populations or low-income populations (Class III).

No public health or safety issues that extend beyond the immediate project area were identified, e.g., vessel safety and navigation concerns are limited to the immediate vicinity of the project at sea; therefore, no public health or safety impacts are likely to accrue to local residential populations (Class III). No environmental issues that may involve minority populations or low-income populations beyond employment, economic, and commercial fishing effects (discussed separately below) were identified (Class III). No mitigation is required.

Impact EJ-ALT-2. Employment and Economic Effects on Minority Populations and Low-Income Populations

This alternative would not have any disproportional or significant employment or economic effects on minority populations or low-income populations (Class III).

The duration of the project activities would increase to 12 months. Additional trestle fabrication, movement of materials ashore after offshore removal, and related activities would increase total onsite employment. Given that a number of these positions would be less specialized than the offshore positions that would be required under the Proposed Project, this alternative would likely result in more and longer duration employment opportunities for local individuals and entities. While this would benefit the

local economy, this would not be significant due to the small number of jobs involved (Class III). No mitigation is required.

This alternative would also create more shoreside impacts through beach disruption and increased truck activities due to over-the-beach materials removal. There is no indication, however, that these activities would disproportionately impact minority populations or low-income populations; therefore, no environmental justice impacts would occur (Class III). No mitigation is required.

Impact EJ-ALT-3. Environmental Justice Effects on Commercial Fishermen

This alternative would not have any disproportional or significant effects on minority populations or low-income populations engaged in commercial fishing (Class III).

In terms of potential impacts related to commercial fishing, the longer project duration would increase the chances of interfering with local fishing efforts, depending on the timing of project activities. Beyond exclusion of fishing effort in a safety zone around offshore project activities, this alternative would create more turbidity and sedimentation through more intense bottom disturbance over a greater area that could interfere with lobster fishing by disrupting lobster behavior and habitat. Given that substantial interference with commercial fishing for more than 1 month in the disposition area would be considered a significant impact (Section 4.2), avoiding significant impacts to commercial fishermen would not be feasible given the 12-month duration of this alternative. It may be possible to minimize the impacts, if not avoid them altogether, by starting the project immediately after the close of lobster season in March (see Impact FSH-ALT-2). As this alternative requires that work commence at the terminals and progress shoreward, this may result in having the work out of the more productive commercial lobster trapping area and into shallower waters before the lobster season reopens in October. It is not expected, however, that disproportional impacts would accrue to minority populations or low-income populations; therefore, no significant environmental justice impacts would result (Class III). No mitigation is required.

4.11.6.2 Removal of Nearshore Components Alternative

Impact EJ-ALT-4. Environmental, Public Health, and Safety Effects on Minority Populations and Low-Income Populations

This alternative would not have any disproportional or significant environmental, public health, or safety effects on minority populations or low-income populations (Class III).

No public health or safety issues that extend beyond the immediate project area were identified, e.g., vessel safety and navigation concerns are limited to the immediate vicinity of the project at sea; therefore, no public health or safety impacts are likely to accrue to local residential populations (Class III). No environmental issues that may involve minority populations or low-income populations beyond employment, economic, and commercial fishing effects (discussed separately below) were identified (Class III). No mitigation is required.

Impact EJ-ALT-5. Employment and Economic Effects on Minority Populations and Low-Income Populations

This alternative would not have any disproportional or significant employment or economic effects on minority populations or low-income populations (Class III).

There would be a limited increase in project employment associated specifically with the removal of nearshore components across the beach, but this is not expected to result in significant socioeconomic or environmental justice impacts. Impacts associated with the over-the-beach movement of removed materials would be similar in nature to those seen under the Complete Removal of Conduits Alternative, but they would be shorter in duration and of less intensity due to the much smaller volume of material involved. No significant socioeconomic or environmental justice impacts would result from this alternative (Class III). No mitigation is required.

Impact EJ-ALT-6. Environmental Justice Effects on Commercial Fishermen

This alternative would not have any disproportional or significant effects on minority populations or low-income populations engaged in commercial fishing (Class III).

Under this alternative, environmental impacts would be limited to the nearshore area. This alternative would have minimal impacts on local commercial fishing if the project were confined to only removing the nearshore components (those within 300 feet [91 m]

of the shore), as relatively little or no fishing takes place in very shallow water within or just outside the surf zone. Lobster habitat utilized by commercial fishermen would not be altered from existing conditions as the offshore terminal structures and associated riprap would be left in place. If the subalternative that removes all vertical structures consistent with the Proposed Project were adopted, this alternative would be similar to the Proposed Project in terms of socioeconomic and environmental justice impacts, and commercial fishing impacts in particular (Class III). No mitigation is required.

4.11.6.3 Crush Conduits and Remove Terminal Structures Alternative

Impact EJ-ALT-7. Environmental, Public Health, Safety, Employment, Economic and/or Commercial Fishing Effects on Minority Populations and Low-Income Populations

This alternative would not have any disproportional or significant environmental, public health, safety, employment, economic and/or commercial fishing effects on minority populations or low-income populations (Class III).

In terms of socioeconomic, environmental justice, and commercial fishing impacts, this alternative would be similar to the Complete Removal of Conduits Alternative, with the exception that material would be left in place rather than removed and transported over the beach. This difference would not change any significance findings for socioeconomic, environmental justice, or commercial fishing impacts (Class III). No mitigation is required.

4.11.6.4 Artificial Reef Alternative

Impact EJ-ALT-8. Environmental, Public Health, Safety, Employment, and/or Economic Effects on Minority Populations and Low-Income Populations

This alternative would not have any disproportional or significant environmental, public health, safety, employment and/or effects on minority populations or low-income populations (Class III).

No public health or safety issues that extend beyond the immediate project area were identified, e.g., vessel safety and navigation concerns are limited to the immediate vicinity of the project at sea; therefore, no public health or safety impacts are likely to accrue to local residential populations (Class III). No environmental issues that may involve minority populations or low-income populations beyond employment, economic, and commercial fishing effects (discussed separately below) were identified (Class III). Employment and economic impacts would not be significant (Class III).

This alternative would be very similar to the Proposed Project. The creation of an artificial reef under this alternative would have no adverse environmental justice impacts (Class III). No mitigation is required.

Impact EJ-ALT-9. Environmental Justice Effects on Commercial Fishermen

This alternative would not have any disproportional or significant effects on minority populations or low-income populations engaged in commercial fishing (Class III).

The creation of additional reef under this alternative would enhance fishing in the area, creating socioeconomic benefits over the long term. The artificial reef would provide expanded habitat for species of fish and invertebrates, enhancing local commercial fishing over the long term. There would be positive, beneficial effects on commercial fishermen associated with the creation of the artificial reef under this alternative, but these benefits are unlikely to accrue specifically to minority populations or low-income populations (Class IV).

4.11.6.5 No Project Alternative

Impact EJ-ALT-10. Environmental, Public Health, Safety, Employment, Economic and/or Commercial Fishing Effects on Minority Populations and Low-Income Populations

This alternative would not have any disproportional or significant environmental, public health, safety, employment, economic and/or commercial fishing effects on minority populations or low-income populations (Class III).

Under the No Project Alternative, socioeconomic and commercial fishing activities would continue as under existing conditions. This alternative would not result in any socioeconomic, environmental justice, or commercial fishing impacts.

4.11.7 Cumulative Project Impact Analysis

Ongoing decommissioning of SONGS Unit 1 is a long-term, multi-year effort that requires specialized workforce personnel trained in nuclear power plant safety issues. Many of these workers are not local; instead they travel to SONGS and are employed because of their specialized skills and training. This is a different workforce than the small local workforce needed for the Proposed Project. The proposed new steam generators at SONGS Units 2 and 3 would likewise require a specialized workforce, separate from that required for the Proposed Project. The potential toll road extension

would be a major, long-term freeway construction project. If a coastal alignment were selected, that project would be initiated after completion of the much smaller disposition project, which will be finished by 2006. None of the MCB Camp Pendleton projects would require construction personnel experienced in work in the offshore environment. Finally, none of the potential cumulative projects identified would have an offshore impact that would adversely affect commercial fishermen or their fishing grounds.

Overall, no cumulative socioeconomic or environmental justice effects on minority populations, low-income populations, or commercial fishermen would result from the implementation of the Proposed Project in conjunction with other known projects.

4.11.8 References

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