1.0 PROJECT PURPOSE AND NEED

1.1 PROPOSED ACTION

The proposed action would adopt a new alignment and construct a four-lane expressway in Imperial County, California, from State Route 86 (SR-86), northwest of the city of Brawley, to State Route 111 (SR-111), southeast of the city of Brawley (Figure 1-1). The proposed SR-78/111 expressway, up to about 16 km (10 miles) in length, will supersede the existing segments of SR-78 and SR-111 in the city of Brawley, and thus is referred to as the Brawley Bypass. The project would adopt a new alignment for SR-78 from either approximately 0.8 km (0.5 miles) south of Baughman Road, or Fredricks Road on SR-86, to approximately 0.7 km (0.4 miles) east of the existing east junction of SR-111. The project would also adopt a new alignment for SR-111 from existing SR-111, north of the city of Brawley, to 0.5 km (0.3 miles) north of Mead Road on existing SR-111, south of the city of Brawley (Figure 1-2).

This document has been prepared in conformance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) requirements to address potential effects of the proposed SR-78/111 expressway project. Its purpose is to assist decision makers and citizens to make an informed evaluation of the project based on its environmental consequences and to recommend actions to avoid, reduce or minimize those consequences.

1.2 PROJECT BACKGROUND

1.2.1 Project Status

The steady increase of traffic on SR-78, SR-86, and SR-111, particularly within the city of Brawley, has resulted in increased traffic congestion, noise, and safety concerns. The city of Brawley, the County of Imperial, and the Brawley Chamber of Commerce have all expressed an urgent desire to alleviate the traffic congestion within Brawley's downtown area. Within the city limits of Brawley, SR-78, SR-86, and SR-111 are characterized by signalized and nonsignalized intersections, reduced speed zones, and developed property adjacent to the state right-of-way. The downtown area has storefront shops. The purpose of the SR-78/111 expressway project is to reduce traffic impacts in the downtown area of Brawley, and to accommodate increased regional and international traffic due to the North American Free Trade Agreement (NAFTA). This project is amongst a number of projects proposed to address transportation infrastructure needs along the California/Mexico border.

A Project Study Report (PSR) was prepared in March 1993 at the request of the California Transportation Commission (CTC) and the city of Brawley. The PSR recommended the Fredricks and Del Rio Alternatives for further studies. In September of 1996, a series of Scoping meetings were held for the Imperial County Transportation Plan in the cities of Brawley, El Centro, and Calexico. In 1997, the Highway Element of the Imperial County Transportation Plan, prepared by the Imperial Valley Association of Governments, the Southern California Association of Governments and Caltrans, was adopted. It upgraded the proposed expressway project to a Near-Term project (construction 2002 to 2010) as shown on Figure 1-3.

In 1996, detailed environmental and engineering studies were initiated. The Notice of Intent (NOI) to prepare an Environmental Impact Statement for the proposed project was published in the Federal Register on November 1, 1996. In October 1996, a public scoping meeting was held in the city of Brawley to gain community input. In May 1997, an Alternative Analysis Report (AAR) evaluated the alternatives presented in the PSR and the Public Scoping Meeting. The AAR recommended that the Fredricks, Del Rio, and Del Rio North alternatives be studied in the Project Report and Environmental Document. At the request of the U.S. Environmental Protection Agency (EPA), an additional study, the August 1998 Alternative Evaluation Report (AER), was prepared which provided greater detail on the need for the project and the alternatives under study. The AER recommended that studies on the Fredricks, Del Rio, and Del Rio North Alternatives continue in the Project Report/Environmental Document phase of the project. EPA concurred with the AER recommended alternatives in October 1998. Specific information about the alternatives is addressed in Chapter 2, Section 2.2 and Section 2.3.

The project is programmed in the 2000 State Transportation Improvement Program (STIP). The estimated construction and right of way cost for all of the alternatives are included in the Summary of Project Alternative Impacts Table.

1.2.2 Related Projects/Regional Transportation Network

Currently, SR-86 and SR-111 make up a transportation corridor of regional, national, and international importance. The routes serve local, regional, and international business as well as recreational travel. In addition, SR-86 and SR-111 connect agricultural producers and packers of the Imperial and Coachella Valleys to distribution centers and consumers throughout the United States. The SR-78/111 Brawley Bypass would provide four-lane expressway continuity between these two routes.

North of the city of Brawley, SR-86 has recently been upgraded to four-lane expressway status. It becomes a four-lane conventional highway as it traverses the city of Westmorland, then returns to expressway status north to the Riverside County line. North of the Riverside County line, a four-lane expressway bypass for SR-86 is currently under construction that will connect to Interstate 10. South of the city of Brawley, SR-111 will be upgraded to a four-lane expressway to the existing SR-111 expressway at Ross Road. Completion of these projects will provide expressway access between Interstates 8 and 10, with the exception of the small conventional highway portion within the city of Westmorland. This highway corridor services farm-to-market traffic from the winter growing regions in Imperial County and Arizona to the greater Los Angeles area as well as other interregional traffic.

The 1997 Imperial County Transportation Plan, prepared by Imperial Valley Association of Governments (IVAG), Southern California Association of Governments (SCAG), and Caltrans identifies and prioritizes transportation needs of the county for the next 20 years, and serves as a guide for the development of major transportation projects in Imperial County. The Brawley Bypass expressway project is one of three top priority projects in the Imperial County, in addition to the SR-7 and SR-111 expressway projects. The proposed SR-7 and SR-111 expressway projects are tentatively scheduled for construction completion in 2003. These three priority projects are part of a goods movement corridor, and are characterized as projects of

statewide significance. The transportation plan also includes provisions for an interchange on SR-111 at the junction of SR-78.

The 1998 Transportation Concept Report (TCR) for SR-78, the April 2000 Draft TCR for SR-111, and the February 1995 TCR for SR-86 all identify the need for completing the proposed Brawley Bypass four-lane expressway project. The Draft TCR for SR-111 also identifies the need for an interchange at the junction of SR-78. A TCR is a 20-year planning document, produced by Caltrans, that analyzes a transportation corridor service area, establishes a twenty-year transportation planning concept, and identifies modal transportation options and applications needed to achieve the twenty-year concepts. The twenty-year transportation concept is based on projected traffic volumes, and assumes completion of future regional transportation systems. This project is consistent with the current TCR's for SR-78, SR-111, and SR-86.

This project is also included in the Caltrans 1996 District System Management Plan (DSMP). The DSMP is a strategic and policy planning document that presents how the district intends to provide leadership, manage, and maintain the transportation system over the next twenty years and beyond. It is a multimodal and multijurisdictional plan developed in partnership with regional and local transportation agencies, Congestion Management Agencies (CMAs), transit districts and air quality planning agencies. In the plan, SR-86 and SR-111, along with SR-7, are identified as being necessary for transit and border related improvements due to the increasing volume of travel and trade between the U.S. and Mexico as a result of NAFTA.

This expressway project is needed to accommodate increased regional and international traffic due to NAFTA and the General Agreement on Tariffs and Trade (GATT). SR-78, SR-86, and SR-111 are all transportation corridors of regional, statewide, and national significance. They all serve international, commercial, regional, local, and recreational traffic. All three state routes, in the project area, are part of the NAFTA Network (NAFTA NET), and have been designated as International Border Trade Corridors (IBTC) and Intermodal Corridors of Economic Significance (ICES). The IBTC is a transportation network in Imperial, San Diego, and Riverside Counties that link the international border regions to the existing transportation system. The ICES system includes those corridors that are most essential to the California economy in terms of national and international trade. The proposed project is also included as part of the transportation network of IBTC (Figure 1-4).

The proposed expressway is part of the Interregional Road System (IRRS), the Freeway & Expressway System (F&E), and is expected to be designated as part of the national network for Surface Transportation Assistance Act (STAA) trucks and the National Highway System (NHS).

1.2.3 Capacity/Safety

The existing roadway network in the project study area includes various county roads and three state highways. Existing SR-78, SR-86, and SR-111 all serve as urban arterials within the city of Brawley. Various portions of the existing state routes within the city are operating at or below the desired operating level of service (LOS) C.

A comparison of the existing traffic volumes (Figure 1-5) with the projected No-Build Year 2020 traffic volumes (Figure 1-7) shows that the traffic through Brawley will roughly double, including truck traffic. Traffic conditions within Brawley are expected to worsen, with each of the existing state routes within the city operating at a LOS F by the year 2020. With the proposed expressway project, the projected year 2020 traffic volumes (Figure 1-6) through Brawley are expected to generally remain unchanged from existing. However, the percentage of truck traffic through Brawley is expected to decrease with the proposed project. It is anticipated that 60 to 70 % of the truck traffic will utilize the expressway. The level of service objective for the proposed expressway in the year 2020 is LOS B with accompanying easing of congestion in the downtown area of Brawley. The existing and projected traffic volumes for the segments of SR-78 and SR-111, within the city of Brawley, are shown in the following Table 1-1.

The two existing signalized state route intersections within the city of Brawley, SR-78/SR-86 and SR-78/SR-111 are currently operating below capacity. These state route intersections are projected to deteriorate to above capacity in the year 2020 if the expressway is not built. With the expressway, these intersections will continue to operate below capacity in the year 2020.

The projected traffic increase within the project area was based on average growth rates for Imperial County, NAFTA related traffic, and future development in the area. Without the proposed expressway, the additional traffic will cause extreme congestion in the downtown area of Brawley. This could cause through traffic, especially truck traffic, to establish alternate routes along other city or county arterials; overloading sections of the local street system and creating potential safety concerns between trucks, slow moving agricultural, local residential, and other through traffic.

1.3 NEED FOR ACTION/EXPECTED BENEFITS

1.3.1 Time Savings/Safety Needs

The purpose of the this project is to reduce accidents, traffic congestion, and time delays on SR-78, SR-86 and SR-111 within the city of Brawley. The city of Brawley is currently experiencing a higher than expected number of accidents in the downtown area of Brawley on SR-78 and SR-111. Four existing state route segments, within the city of Brawley, were evaluated using traffic accident data from the Traffic Accident Surveillance and Analysis System (TASAS). A 36-month period from January 1, 1996 through December 31, 1998 was evaluated and is summarized in Table 1-2.

TABLE 1- 1

Traffic Projections					
Existing Route Segment	Location	Facility Type	Existing 1997 ADT	No-Build 2020 ADT (Without Project)	Build 2020 ADT (With Project)
SR-78	South junction SR-86 to west junction SR-111 (Segment A*)	4C	25,500 (15% trucks) LOS = C	40,000 (15% trucks) LOS = F	22,000 (10% trucks) LOS = B
SR-78	West junction SR-111 to east junction SR-111 (Segment B*)	4C	19,762 (20% trucks) LOS = B	40,000 (15% trucks) LOS = F	22,000 (12% trucks) LOS = B
SR-111	West junction SR-78 to Adler Street (Segment C*)	2C	11,500 (20% trucks) LOS = E	20,000 (20% trucks) LOS = F	15,000 (15% trucks) LOS = E
SR-111	East junction SR-78 to Malan Street (Segment D*)	2C	6,027 (25% trucks) LOS = C	15,000 (20% trucks) LOS = F	5,000 (12% trucks) LOS = C

ADT = Average Daily Traffic
LOS = Level of Service (see Appendix K)
4C = Four-lane conventional highway
2C = Two-lane conventional highway
* = Reference to Figures 1-7,1-8, and 1-9

This summary shows that the total actual accident rate for three of the four state route segments within the city of Brawley, are substantially higher than the statewide average for similar types of facilities. The highest accident rate is on SR-78, from the south junction of SR-86 to the west junction of SR-111, in the downtown area of Brawley. This area consists of schools, parks, and other public buildings. There are two signed crosswalks in this area, one regular pedestrian crossing, and one school crossing (see Figure 1-8). It is anticipated that these accident rates, and potential safety concerns for pedestrians, will increase with the projected traffic increase. Therefore, the proposed expressway would help to reduce accidents and enhance pedestrian safety.

TABLE 1- 2

Traffic Accidents				
Existing Route Segment	Location	Total Accidents	Total Actual Rate (ACC/MVM)	Total Statewide Average Rate (ACC/MVM)
SR-78	South junction SR-86 to west junction SR-111 (Segment A*)	80	6.04	2.51
SR-78	West junction SR-111 to east junction SR-111 (Segment B*)	67	3.99	3.06
SR-111	West junction SR-78 to Adler Street (Segment C*)	15	2.79	1.90
SR-111	East junction SR-78 to Malan Street (Segment D*)	6	1.61	1.90

ACC/MVM = Accidents per million vehicle miles
* = Reference to Figures 1-7,1-8, and 1-9

Heavy congestion and time delays are experienced daily on the existing state routes within the city of Brawley. Time delays throughout the city are substantially increased during the harvest season (December through April) due to the increase in truck traffic. A detailed analysis was completed in 1998 to determine existing travel times for various segments of SR-78, SR-86, and SR-111. Based on the 1997 existing and year 2020 forecasted average daily traffic volumes (see Figure 1-5 and Figure 1-6). The Del Rio Alternative was used as an example, as it is an average length for the alternatives under study. This analysis showed that heavy congestion and long delays are experienced daily during peak periods on SR-78 and SR-111 within the city of Brawley. The average speed on these state routes, through the city, is between 40 to 64 km/h (25 to 40 mph).

This study also showed that future travel times for the state routes through the city of Brawley, would double, in the year 2020, without the proposed expressway. However, the travel time on the proposed expressway would be approximately 3.5 times faster than the future travel time (without the proposed project) on the state routes through the city of Brawley. Due to the improved level of service for the build alternative the travel time study concluded that the proposed expressway would greatly reduce the time delays and increase mobility in the area of Brawley.

The proposed expressway is needed to accommodate the steady increasing local, regional, and international traffic in the Imperial Valley and the general area of Brawley. The project is essential in providing transportation continuity between the international border with Mexico and Riverside County. Further, the project, compared to the No-build Alternative, would substantially reduce accidents, traffic congestion, and time delays on the state routes within the city of Brawley.

1.3.2 Community Needs

Downtown Brawley is characterized by a locally recognized historic civic center park square and a shopping district with continuous, large canopies which create shade in the desert environment. SR-78 traverses this section of town as both Main Street and a four-lane conventional highway with a median. Main Street in Brawley was originally constructed in its present width to allow for dust control. One half of the roadway was used while the other was watered down. This helped preserve the unique historic aspect of the central portion of town as the city modernized.

Because Brawley's Main Street is a heavily used state highway, much of the traffic does not patronize the downtown civic center and business community but simply uses the route to reach destinations beyond Brawley. The current high truck and vehicular traffic volumes are inconsistent with the character of the small town and historic area. Civic services and businesses are on either side of Main Street so there is frequent pedestrian use despite the high volume of traffic. Please refer to Figure 3-3A, Figure 3-3B, and Figure 3-3-C for photographs of this area. There is a nonsignalized pedestrian crossing in the center of the square and a school crossing at the west end of the square. Pedestrians and school children have been observed crossing at the east end of the square without a crosswalk. The high school and middle school are located several blocks north of SR-78, and a private school is located several blocks south of SR-78. It is clear that this area is a prime focal point for the community, and that the existing highway corridor negatively impacts this community resource.

Because of the way the town was originally planned and developed, and due to the presence of the northbound and southbound railroad tracks, very few streets traverse the city in an east-west direction. This forces both local traffic and regional traffic to concentrate on State Route 78 within the city limits. Construction of the proposed project would not only improve safety within the city of Brawley but it would help preserve the character of the downtown district.