Otay Mesa – Mesa de Otay
Binational Corridor
Strategic Plan

Progress Report

May 2008
INTRODUCTION

The Otay Mesa - Mesa de Otay Binational Corridor Strategic Plan approved by the SANDAG Board of Directors and the City of Tijuana's City Council in fall 2007, identified several strategies in the areas of transportation, economic development, housing, and the environment. This report is an update of the progress made through May 2008 towards the implementation of these strategies.

TRANSPORTATION ACTIONS

ISSUE IMPLEMENT THE EAST OTAY MESA-OTAY II PORT OF ENTRY (POE) AND CONNECTING ROADS

EARLY ACTION Establish the East Otay Mesa-Otay II POE Technical Commission to advance planning and implementation of the future East Otay Mesa-Otay II POE and connecting roads as a binational project, in collaboration with Caltrans, SIDUE, and IMPlan, and based upon discussions with the U.S. interagency coordination group.

Progress

The Otay Mesa East-Otay II POE Technical Commission, under the umbrella of the U.S.-Mexico Border Liaison Mechanism, was established in 2007. This Technical Commission continues to meet quarterly to coordinate planning activities and to share information among federal, state, and local agencies responsible for POE planning and implementation. The last meeting took place on April 15, 2008.

In the past year, Caltrans, the U.S. General Services Administration (GSA), the County of San Diego, SANDAG, and the Mexican government have made significant progress to advance the implementation of the new Otay Mesa East-Otay II POE and connecting roads on both sides of the border (Figure 1). As the project sponsor for the Otay Mesa East POE and State Route (SR) 11, Caltrans District 11 has taken the lead on several planning tasks to advance this project. In Mexico, the Secretariat of Communications and Transportation (SCT) also has undertaken required studies for the Otay II POE and connecting roads. Key planning activities are described in this section.

PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT FOR SR 11 AND THE OTAY MESA EAST POE

Caltrans District 11, in cooperation with the U.S. Federal Highway Administration (FHWA), is evaluating alternative locations to identify a corridor for the future SR 11 and a site for future development of the Otay Mesa East POE. The identification of a preferred corridor and site constitute Phase 1 of the program under analysis in the Program Environmental Impact Report/Environmental Impact Statement (PEIR/PEIS).

The purpose of the Phase 1 document is to identify preferred facility locations and allow for the following decisions/actions: (1) route adoption by the California Transportation Commission (CTC); (2) support Presidential permit acquisition for the POE from the
U.S. Department of State (DOS); (3) designation of right-of-way for the highway and the POE; and (4) support the 1998 Letter of Intent entitled “Binational Corridor Preservation for State Route 11 – Tijuana/Rosarito 2000 and Site Designation for the East Otay Mesa-Mesa de Otay II Port of Entry” signed by SANDAG, City of San Diego, County of San Diego, City of Tijuana, City of Playas de Rosarito, State of Baja California, and Caltrans.

The future Phase 2 NEPA/CEQA environmental document for the project will incorporate the analysis from the Phase 1 program and evaluate specific design and operational characteristics for the proposed facilities. The projects would ultimately be built by different agencies, with Caltrans/FHWA being responsible for SR 11 and GSA being responsible for the POE.

The Draft PEIR/PEIS was released for public review and comment on January 18, 2008. The comment period closed on March 3, 2008. The Final PEIR/PEIS will include responses to comments received and will identify the preferred corridor and POE site alternative. Once the PEIR/PEIS is given environmental approval, Caltrans would begin project-level studies for SR 11 and the POE. Work on the Phase 2 environmental document is scheduled to begin in spring 2008.
PRESIDENTIAL PERMIT APPLICATION

The U.S. federal approval process for a new border crossing begins with the application for a Presidential permit. The law authorizes the President, or the Secretary of State acting on his behalf, to issue permits for the construction of international bridges and land border crossings, and to issue a Presidential permit for the same, if construction is deemed to be in the national interest.

Caltrans District 11 prepared a draft Presidential permit application for the Otay Mesa East POE. This application includes a description of the facility and its relationship to existing border crossings, traffic information and projected demand for the new POE, projected financing and construction plans, status of the counterpart project in Mexico, status on U.S. approvals necessary for construction, historic preservation information, and a description of how the POE would serve the national interest.

On January 14, 2008, Caltrans submitted the draft Presidential permit application to the DOS. DOS consults with other agencies, such as the Department of Homeland Security, the Department of Transportation, GSA, the Environmental Protection Agency, and associated state governments to comment on the permit application and on the environmental and other documentation submitted by the project sponsor. DOS has the responsibility to determine whether the proposed border crossing is in the U.S. national interest, taking into account input from these agencies and other stakeholders. Comments on this application were due to DOS by April 23, 2008, and are currently being reviewed and addressed by Caltrans. Next steps are to formally address the comments with DOS and provide the Final PEIR/PEIS to DOS for its review.

Once the United States and Mexican governments concur on the construction of a border crossing, agreements on how to move forward with project scheduling, construction, and other matters would be reached through an exchange of diplomatic notes.

U.S. GSA FEASIBILITY/FUNCTIONALITY STUDY

GSA initiated a feasibility study in May 2007 to evaluate alternatives to satisfy the projected traffic demand and space requirements at the proposed Otay Mesa East POE as well as to reconfigure the existing Otay Mesa POE. Eight alternatives are being analyzed and they include variations that range from operating the Otay Mesa East POE exclusively as a commercial inspection facility, exclusively as a non-commercial POE, or alternatively having both functions: commercial and non-commercial inspection facility. Alternatives also consider renovation or modernization at the existing Otay Mesa POE cargo inspection and non-commercial facilities.

The draft report prepared in February 2008 identified the preferred alternative for the feasibility study (Alternative H). This alternative calls for the Otay Mesa East POE to function as a commercial and non-commercial facility, includes modernization of the commercial and non-commercial installations at the existing Otay Mesa POE, and takes into account tolls or user fees for the SR 11-Otay Mesa East POE project. Completion of GSA’s feasibility study is anticipated in spring 2008.

TOLL ROAD LEGISLATIVE PROPOSAL – SENATE BILL 1486 (DUCHÉNY)

Senate Bill 1486, the Otay Mesa East Toll Facility Authority Act, was introduced on February 21, 2008, by Senator Denise Ducheny (D-San Diego) and last amended on April 23, 2008. The bill would allow SANDAG to
develop a public toll project to move people and goods along the SR 11 corridor and the Otay Mesa East POE. This bill would enable travelers to pay a fee to use the facility and would allow the Otay Mesa East Toll Facility Authority to bond against the user fee revenues to develop, construct, and operate the new SR 11-Otay Mesa East POE. SB 1486 passed off of the Senate Floor on May 29, 2008 by a vote of 33-2. The bill now moves to the Assembly with its first stop at the Assembly Transportation Committee for a hearing in June 2008.

**PROPOSITION 1B: TRADE CORRIDORS IMPROVEMENT FUND (TCIF) PROGRAM**

Proposition 1B (Prop. 1B), approved by the voters at the November 2006 general election, enacts the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, which authorizes the issuance of more than $19.9 billion of general obligation bonds for various transportation programs. One of Prop.1B’s goods movement programs is the Trade Corridors Improvement Fund (TCIF), which will focus infrastructure improvements along trade corridors that accommodate a high volume of freight movements.

On January 17, 2008, SANDAG submitted a nomination to the CTC for the SR 11 and Otay Mesa East POE project. Funding to complete SR 905 as a six-lane facility between the existing Otay Mesa POE and Interstate 805 (I-805) also was requested.

On April 10, 2008, the CTC adopted the TCIF program of projects, which includes $75 million for the SR 11-Otay Mesa East POE and $91.6 million for SR 905.

**MEXICO**

In March 2008, Mexico’s Secretariat of Communications and Transportation (SCT) released an economic, financial feasibility and functionality study. The objectives of this study are to develop a conceptual master plan of the new POE, and to conduct socio-economic and financial viability studies. Key tasks are outlined below.

- Estimate the Otay II POE potential market demand
- Define the POE conceptual layout
- Develop a Master Plan integrating the urban zone of Mesa de Otay
- Analyze the connectivity of the transportation corridor at the current Mesa de Otay POE
- Estimate the financial and economic feasibility of the project

According to the study, the preferred alternative calls for a POE that would handle both passenger and commercial vehicles with separate access roads connecting to the Mesa de Otay II-Otay Mesa East POE and SR 11. The study contemplates user fees of approximately $1.80 (U.S. dollars) for passenger vehicles and $8.25 for 5-axle commercial vehicles (user fees would be based on the number of axles).

Additionally, the City of Tijuana is in the process of identifying possible locations for access roads in the vicinity of the Otay II POE. Funds have been allocated to do a risk analysis of nearby canyons to determine whether they should be declared as High Risk Zones for housing settlements and could be considered as right-of-way for access roads. Also, the City of Tijuana will start the bid process to initiate construction of the first phase for canalizing the Alamar River and a new expressway, which also will provide access to the new Otay II POE once completed.
ISSUE IMPLEMENT IMPROVEMENTS TO EXISTING OTAY MESA-MESA DE OTAY POE AND CONNECTING ROADS

EARLY ACTION Coordinate with Customs Border Protection (CBP) and Mexican Customs on the process to fund and implement identified short-term capital and operational improvements at the Otay Mesa-Mesa de Otay Commercial POE.

Progress

Caltrans recently completed a project that added approaches for two regular inspection booths and a second FAST\(^1\) lane north of the existing one (item 6b of Figure 2). Other proposed Capital and Operational Improvements at the Otay Mesa-Mesa de Otay Commercial POE also are shown in Figure 2.

Next Steps

The KEEP CLEAR zones and directional signs will be implemented as medium term projects (Item 6a). Caltrans will conduct additional preliminary engineering and environmental tasks in 2008 for widening the truck entrance at the border and adding a lane south of the existing lanes on the United States side (Items 5a and 5b). The project study report, which was scheduled to be completed in December 2007, is now anticipated to be finalized in spring 2008 due to a request to evaluate two new alternatives.

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\(^1\)Free and Secure Trade (FAST) offers expedited clearance to carriers and importers who are enrolled in Customs Trade Partnership Against Terrorism (C-TPAT). It is designed to expedite the clearance of transborder shipments of compliant partners by reducing Customs information requirements, dedicating lanes at major crossings to FAST participants, using transponder technology, and physically examining cargo transported by these low-risk clients with minimal frequency.
EARLY ACTION Explore the feasibility of short-term operational and capital improvements at the Otay Mesa-Mesa de Otay Passenger POE (operations and facilities).

Progress

GSA’s current feasibility study for the proposed Otay Mesa East POE also is evaluating reconfiguration of the existing Otay Mesa POE. The preferred alternative identified in the draft report prepared in February 2008 includes modernization of the non-commercial installations at the Otay Mesa POE, in addition to modernization of the commercial inspection facilities.

Next Steps

Completion of GSA’s feasibility study is anticipated in spring 2008. A Program Development Study is the next milestone in GSA’s project timeline.

EARLY ACTION Collaborate with the City of San Diego on the Otay Mesa Community Plan update in relation to transportation implications of future land uses changes under consideration.

Progress

The City of San Diego currently is evaluating four draft land use scenarios, which include new Scenarios 4a and 4b that were presented to the City of San Diego Planning Commission at its March 13, 2008, meeting. The presentation included discussion of transportation and truck routes for the community plan. La Media and Britannia Roads are proposed as truck routes and Airway Road as a transit route.

The four land use scenarios are based on input from the Planning Commission and the community, and include variations in land uses and number of housing units. SANDAG staff commented on these draft scenarios, based on policies included in the Regional Comprehensive Plan (RCP) and the Regional Transportation Plan (RTP). The comments emphasize the need for land use and transportation coordination. Comments on draft Scenarios 1, 2, and 3 include the following:

- Encourage the City to increase density ranges in the Village Center category to support transit service and transit-oriented land use patterns.
- Consider Urban Village designations along the proposed east-west Bus Rapid Transit (BRT) corridor and discourage land uses that generate truck traffic along this corridor.
- Provide transit-friendly design.
- Encourage the City to ensure the provision of affordable housing.

SANDAG staff comments on the newly proposed Scenarios 4a and 4b include the following:

- Ensure adequate buffering along the northern boundaries of the proposed Neighborhood Villages abutting SR 905 to protect against noise and air quality impacts from SR 905 traffic.
- Encourage the City to work collaboratively with SANDAG and Caltrans staff to coordinate the development of regional transit, truck, and pedestrian/bicycle routes within the planning area.
- Include the Otay Mesa POE southbound truck route as a goods movement corridor.

Next Steps

Staff will continue to collaborate with the City of San Diego in the Otay Mesa Community Plan update process. The
Planning Commission requested that the City of San Diego Planning staff either develop a fifth scenario or a modified Scenario 3 that focuses residential development in the western area of Otay Mesa.

**NEW ACTION** Support the implementation of technologies to measure cross-border wait times of northbound commercial vehicles at the Otay Mesa-Mesa de Otay Commercial POE.

**Progress**

In March 2007, Caltrans and SANDAG completed a study funded by the U.S. Federal Highway Administration (FHWA) to determine what Intelligent Transportation Systems (ITS) or other commercial technologies are available to monitor, measure, and report on commercial vehicle wait times at the Otay Mesa POE. The study was divided into two stages. The first stage identified high level requirements for the systems, reviewed ten potential technologies, and described the essential features of the selected solutions.

Of the ten technologies reviewed during Stage 1, the following three technologies met the criteria for further exploration in Stage 2:

- **Automated License Plate Recognition (ALPR):** This license plate recognition technology has the capability of reading the license plates of incoming vehicles at select locations to identify, catalog, and track freight movement through the Otay Mesa border crossing system. The information is stored in a central database and would provide aggregated data on border wait times. ALPR can also track information such as registered driver when additional system-to-system links (i.e. state registered vehicle database) are incorporated. ALPR technology is flexible in the sense that individual cameras and supporting infrastructure can be changed, moved, operated, updated and integrated from one lane to another. However, installation costs will be incurred for any removal and reinstallation of equipment.

- **Radio Frequency Identification (RFID):** RFID is already utilized for toll collection on the I-15 express lanes and the South Bay Expressway in San Diego County. RFID can be an inexpensive means of tracking and cataloging freight movement through the Otay Mesa border crossing system. The data transmitted by RFID can track and identify vehicles and provide specific information on items being transported as well as border crossing history. RFID devices can be moved from one lane to another at nominal costs.

- **Global Positioning Systems (GPS):** When combined with cellular networks, GPS could efficiently track the exact vehicle location and catalog truck movement through the Otay Mesa border crossing system. Essentially, the GPS receiver sends data into the cell phone network which forwards the information to e-mail, computer browser or cell phone. GPS technology could potentially minimize the need for additional equipment other than the GPS receiver and Internet browser.

The Stage 2 Report, completed in June 2007, evaluated the viability, cost and high-level requirements of these three technologies for the Otay Mesa Commercial POE. Findings from this report indicated that each of these technologies is customizable and environmentally protected from the elements. The only universal requirement among the technologies is an active high-
speed broadband connection for real time monitoring.

The report concluded with recommendations to field test each of these technologies to further assess the capability of the technology, the quality and consistency of data provided, and the potential impacts on daily operations. However, if field testing were not viable due to budgetary and scheduling restraints, the report recommended deploying the ALPR technology.

In December 2007, FHWA began working on the field test program to measure the time required to cross the international border at the Otay Mesa-Mesa de Otay crossing. Stakeholders from the U.S. and Mexico were invited to participate in the study, including cross-border motor carriers, freight forwarders, logistics companies, Caltrans, SANDAG, State of Baja California, the Instituto Municipal de Investigación y Planeación de Ensenada (IMIP), Mexican Customs, U.S. Customs and Border Protection (CBP), and Mexico’s Secretaría de Comunicaciones y Transportes (SCT).

Stakeholders in the San Diego/Otay Mesa attended sessions to discuss user needs for the cross-border travel time deployment as well as any related impediments to successfully collecting cross-border travel time data. Stakeholders were instrumental in defining the total cross border trip area where travel times will be collected, and identifying the intersection of Calle 12 and Bellas Artes in Tijuana as the beginning of the queue for trucks in peak season.

Both GPS and ALPR were considered for deployment at Otay Mesa and were evaluated against the following user requirements:

- Total cross-border travel times (historic data);
- Total cross-border travel time with FAST, empty, and laden movements differentiated;
- Real-time information on delay; and
- Measures of travel times between multiple points within the U.S. and Mexico Customs compounds.

GPS and ALPR both provide potential value in applying the technologies at Otay Mesa; however, the consultant team recommended that the FHWA choose GPS as the primary means of collecting travel time information. FHWA’s limited budget makes it possible to deploy only one technology and consultant team has concluded that GPS data will yield the most robust data set.

Next Steps

The consultant team proposed to contract with a third-party provider to pursue negotiations with motor carriers in the study’s target population and gain access to GPS data. The team is currently in negotiations with a third-party provider to collect and archive GPS data from motor carriers. Data collection is scheduled to begin in the summer of 2008.

NEW ACTION Collaborate with the County of San Diego on the East Otay Mesa Specific Plan Amendment in relation to regional transportation implications of local circulation element changes under consideration.

Progress

On August 1, 2007, the San Diego County Board of Supervisors approved several amendments to the County’s East Otay Mesa Specific Plan, General Plan Circulation Element, and Bicycle Transportation Plan. Specifically, modifications to existing and planned roads were pursued to accommodate SR 905, SR 125, and proposed SR 11 alignments. Some important changes that
would accommodate the latest Caltrans design for SR 11 and the Otay Mesa East POE are outlined below.

- Delete Michael Faraday Drive from Lone Star Road to Airway Road to avoid potential conflict with SR 11/Enrico Fermi Road ramp.
- Change road classification for Enrico Fermi Road, between Otay Mesa Road and SR 11, from four-lane Major to Enhanced four-lane Major. This modification will add turn lanes to accommodate traffic at the Enrico Fermi Road/SR 11 interchange due to the deletion of Faraday Drive.
- Extend Lone Star Road easterly to intersect with Siempre Viva Road east of SR 11.
- Extend Siempre Viva Road easterly to intersect with the new extension of Lone Star Road.
- Extend Airway Road easterly to intersect with the new extension of Siempre Viva Road.

**ISSUE FACILITATE IMPROVEMENTS TO CROSS-BORDER AND REGIONAL PUBLIC TRANSPORTATION SERVICES**

**EARLY ACTION** Initiate advanced planning work to extend the South Bay BRT service between Eastern Chula Vista and the Otay Mesa POE.

**Progress**

Advanced planning work for the South Bay BRT alignment between the Eastern Urban Center in Chula Vista and the Otay Mesa POE was completed in December 2007 (Figure 3). SANDAG evaluated station locations, access to SR 125, land use considerations, and environmental constraints. The outcome of the analysis was to confirm an alignment alternative that would use SR 125 from Hunte Parkway (in the near-term) directly to SR 905 and Siempre Viva Road. The route will exit Siempre Viva Road to a station at Nicola Tesla Court, which is adjacent to the Otay Mesa POE. SANDAG is currently in negotiations with the land owner at Nicola Tesla Court on a long-term lease for that site. Figure 3 illustrates the South Bay BRT alignment.

In the short-term there are no stations planned between Eastern Chula Vista and the Otay Mesa Border Crossing. A future station was identified at the interchange of Otay Mesa Road and SR 125. It was determined that this station would come on line in 2020 as land uses were developed that warranted it. This station is planned as a future park-and-ride.

**Next Steps**

SANDAG is in the process of launching the environmental document for the full BRT alignment. The South Bay BRT project is on schedule to be implemented in late 2012.

**EARLY ACTION** Evaluate the City of Tijuana’s draft Public Transportation Plan, focusing on routes that would serve the Otay Mesa-Mesa de Otay POE and the proposed East Otay Mesa-Otay II POE

**Progress**

To advance this strategy, SANDAG retained a transit consultant. This study gathered information on ridership and current and planned transit routes serving the Mesa de Otay POE in Tijuana. In addition, current and future gaps in transit services to accommodate cross-border travel via the Otay Mesa-Mesa de Otay POE were identified.
The study developed several recommendations which are based on the assumption that pedestrian crossings will increase at the Mesa de Otay POE in response to the forecasted growth in eastern Tijuana and implementation of the South Bay BRT service in the San Diego region. The findings and recommendations focus on improvements to pedestrian and public transportation infrastructure to facilitate access to both sides of the border.

The following are the recommended next steps, which are shown in Figure 4.

1. Implement a public transportation station in Tijuana, similar to the proposed South Bay BRT at-grade station, at one of two sites on the east side of the Otay Mesa - Mesa de Otay POE (MX) (Alternative 1), or on the west side, with transit only lanes from Avenida de las Bellas Artes (Alternative 2).

2. If public transit facilities in Tijuana are developed on the east side of the access road, build a pedestrian bridge from the west side of the access road, where pedestrians enter Mexico after passing through the POE.

3. Improve pedestrian infrastructure leading to and from the Otay Mesa - Mesa de Otay POE (MX) along Mexico’s auto access route to Avenida de las Bellas Artes. This can be limited...
to the east side of the access road if a pedestrian bridge is constructed.

4. Provide shuttle services between IMPlan’s proposed transit network trunk routes on Boulevard Industrial (Highway 2D) and the Otay Mesa – Mesa de Otay POE (MX). The shuttle could also take advantage of its proximity to the Tijuana Airport and provide direct service from the Otay Mesa – Mesa de Otay POE to the airport. This route could serve the tourism market from San Diego by providing an option to use the Tijuana Airport.

5. Provide direct service between the Otay Mesa – Mesa de Otay POE and the Central de Autobuses (Central Camionera) in Tijuana—a large bus station which provides interregional bus services to Baja California and the interior of Mexico. This service could serve the tourism markets between Baja California and United States as well as interregional markets. Such a link would also greatly expand mobility options for residents of San Diego/Tijuana by providing a direct connection to the many destinations in the interior of Mexico accessible from the Central de Autobuses. Because the bus terminal is located in the eastern area of Tijuana, a connection via Otay Mesa is potentially more convenient for travelers from the U.S. than using the San Ysidro crossing to the west.

SANDAG staff shared the study’s findings and recommendations with IMPlan for its review and evaluation. Comments received from IMPlan were incorporated in the final Technical Memorandum.

**Next Steps**

Findings from this evaluation will inform transit planning activities at the Otay Mesa – Mesa de Otay and the future Otay Mesa East – Otay II POEs. In the interim, IMPlan will work towards defining the location of the pick-up and drop-off points for public transportation near the Mesa de Otay POE.

**EARLY ACTION** Evaluate the potential for extension of the South Bay BRT service to the proposed Otay Mesa East border crossing along the future SR 11

**Progress**

A technical memorandum to evaluate the potential extension of BRT (or other alternative transit service) to the Otay Mesa East POE was developed by a transit consultant for this strategy. Two alternatives were evaluated as to how transit from the Otay Mesa East POE would connect to the proposed South Bay BRT serving the Otay Mesa POE and to the San Diego regional transit network. One alternative would connect the Otay Mesa East POE via Siempre Viva Road to the South Bay BRT, and the other would connect to the South Bay BRT via SR 11.

In addition, six types of potential transit service were evaluated to see which would provide the best service. They were as follows:

1. Extension of South Bay BRT
2. Branch of South Bay BRT
3. Extension of MTS Bus Route 905
4. Shuttle Service from Otay Mesa POE Station
5. Shuttle Service from Otay Mesa Road Park and Ride Station
6. Extension of Airway Road Transit Service
Figure 4

South Bay BRT

Legend

- Transit Lanes Alternative #1
- Transit Lanes Alternative #2
- Station Location - Parcel
- Airport Feeder Service
- Central Camionera Feeder Service

Scale: 1"=600'

Source: SANDAG, 2008
Pedestrian and vehicle access to transit at the proposed Otay Mesa East POE also was evaluated. Since this POE is in the planning stages, it provides a unique opportunity to influence how transit vehicles (and private vehicles picking up pedestrian crossers) will access the POE. Several recommendations were made on providing better access for transit, private vehicles, and pedestrian crossers. The following are key elements that will be recommended for incorporating into the POE site plan:

1. The Siempre Viva Road/SR 11 interchange should be at least three-quarters of a mile away from the POE. As such, an access road adjacent to SR 11 from the Siempre Viva Rd. to a designated drop-off area would provide direct, unimpeded access for transit into the interior of the POE. Placing the access road adjacent to SR 11 would allow for minimal impact to potential commercial/industrial development adjacent the POE.

2. Access into the POE should limit the amount of interaction between transit vehicles and commercial traffic. It is assumed that commercial traffic will have an exclusive access road into the Commercial Vehicle Enforcement Facility (CVEF) from the new POE. It will be critically important to ensure that the configuration of the Otay Mesa East POE does not require transit vehicles to wait in or cross queues of vehicles waiting to cross the border. To facilitate this goal, a transit guideway is recommended.

3. The access road with transit-only lanes in the center/median into the POE pedestrian drop-off is recommended; the locations for drop-offs/platforms should be placed in separate areas with the transit station nearest the POE pedestrian processing facilities to ensure transit priority to the POE.

Private vehicles (non-transit vehicles) should not be allowed to enter the transit station.

The following recommendations were made in regards to the intermodal station requirements for the Otay Mesa East POE:

1. The station platforms should be located within an eighth of a mile from the pedestrian crossing for the POE, or less if possible. This will reduce the total crossing time by allowing the pedestrians to reach the transit station—and its amenities—in the fastest manner possible.

2. The station should be located centrally along the pedestrian path to the Otay Mesa East POE pedestrian crossing facilities. If possible, the Otay Mesa East POE should be designed to consolidate pedestrian processing facilities on one side of SR 11 (either east or west), which would allow direct access to transit facilities without building pedestrian bridges across the highway. This should also include an area for private vehicles dropping-off pedestrian crossers. Ideally, both northbound and southbound pedestrian crossing facilities should be located on the same side of the highway, so that transit facilities in both the U.S. and Mexico can be consolidated for maximum user convenience. By comparison, the design of the San Ysidro and Otay Mesa POEs assumes that pedestrians need to be processed in the same direction of travel as vehicular traffic (i.e., to the right of the roadway), so that the facilities in the U.S. and Mexico are consistently on opposite sides of the road, and transit passengers must cross the highway for at least one direction of travel.
3. The station design should remain flexible and have sufficient area/curb to accommodate boarding areas for a shuttle, a conventional 40’ bus, a 60’ BRT vehicle, or all three.

4. If the Otay Mesa East POE station is a terminal station for South Bay BRT or another route (i.e., MTS Route 905), it will need to accommodate additional layover vehicles to maintain operations reliability.

5. The station should accommodate the purchase of fares with either dollars or pesos.

6. The station should accommodate a bus turnaround.

Next Steps

Findings from this evaluation will guide transit planning activities at the Otay Mesa – Mesa de Otay and the future Otay Mesa East – Otay II POEs.

NEW ACTION Collaborate with the San Diego County Regional Airport Authority in the upcoming market demand study of a cross-border terminal connection between Otay Mesa and Tijuana International Airport toward its possible implementation.

Progress

In January 2007, the San Diego County Regional Airport Authority evaluated feasibility issues related to a cross-border terminal between the United States and Tijuana International Airport. In addition, the Airport Authority completed a market demand study of the cross-border terminal in May 2008 to evaluate existing demand and capacity at Tijuana International Airport, review data on existing U.S. passengers that travel from the Tijuana Airport, conduct a survey of San Diego residents that may use the Tijuana Airport if a convenient cross-border connection existed, and develop projections of expected passenger growth at the Tijuana Airport.

The following are the primary study results:

- The number of passengers using Tijuana International Airport (TIJ) from the U.S. will continue to grow significantly over the next 20 years regardless of whether a cross border terminal is developed.

- With an easy cross border terminal, a total of 3.2 million annual passengers (MAP) would use TIJ to/from the United States in 2020; in 2030 that number could rise to 6.4 MAP. This includes both passengers that would be induced to use TIJ by the cross border connection and passengers that would use TIJ even without a connection.

- The passenger demand that would be induced to use TIJ to/from the United States solely because an easy cross border connection exists is estimated at 1.1 MAP in 2020 and 2.7 MAP in 2030.

- If an easy cross border connection does not exist, it is still estimated that 2.1 MAP will use TIJ to/from the United States in 2020 and 3.7 MAP in 2030.

The Airport Authority’s Board will be asked to accept the market demand study report in June 2008.
ECONOMIC DEVELOPMENT ACTIONS

ISSUE PROMOTE CREATION OR EXPANSION OF COMMON EMPLOYMENT CLUSTERS ON BOTH SIDES OF THE BORDER AND ADDRESS FUTURE INDUSTRIAL LAND USE SUPPLY AND DEMAND


Progress

The 2007 San Diego Regional Economic Evaluation and Prosperity Strategy (REPS) identifies demographic and economic challenges facing the San Diego region and promotes a region-wide strategy to meet these challenges and improve the competitiveness of our local economy. The strategic goals identified in the 2007 REPS include: housing affordability; labor force preparation; investment in goods movement, energy, and water infrastructure; economic monitoring; and financial competitiveness. In addition to the reservation of prime employment land for industrial purposes, these regional issues mirror the issues identified in the Otay Mesa-Mesa de Otay Binational Corridor Strategic Plan, including housing supply and affordability; transportation infrastructure, such as State Route 905 and the proposed Otay Mesa East POE and connecting roads; availability of land for non-retail employment; and protection of existing industrial sites.

On March 28, 2008, the SANDAG Board of Directors accepted the REPS as an element of the Regional Comprehensive Plan.

EARLY ACTION Within the framework of San Diego Dialogue’s Crossborder Innovation and Competitiveness Initiative, begin the implementation of selected recommendations from the Borderless Innovation study outlined below:

Initiate a crossborder program to foster scientific and technology relationships, awareness of research, and commercialization of discoveries in the life sciences between the San Diego-Baja California region and other regions in Mexico.

Progress

In December 2006, San Diego Dialogue launched an 18-month binational project, the Life Sciences Gateway Initiative, which seeks to forge binational relationships among researchers, scientists and investors for the purpose of establishing crossborder programs in the life sciences. Partners include Mexican academic institutes with advanced life science facilities from the regions of Guanajuato, Jalisco, Morelos, Nuevo León and Baja California. The initiative involves a series of roundtables and seminars among leaders from Mexico and California focused on establishing strategic partnerships in clinical research, manufacturing and venture investing in biomedicine and biotechnology.

In June 2007, the San Diego Dialogue produced the first briefing paper titled Borderless Biotech & Mexico’s Emerging Life Sciences Industry, which outlines progress on this collaborative effort. The report describes the San Diego border region as a portal for borderless biotech due to its strategic location along the U.S.-Mexico border and the unique opportunity to work with Mexico’s emerging life science industry. Based upon the progress made during the first year of the Initiative in fostering collaborative relationships among the participating
regions, Merck has extended the effort through June 2009.

San Diego Dialogue and Global CONNECT are also assessing the development of a Cleantech Industry Cluster in the San Diego Region. Cleantech industries produce a wide range of products and services that optimize the use of natural resources, offering a cleaner or less wasteful alternative to traditional products and services.

In June 2007, Global CONNECT completed a study titled Cleantech Industry in San Diego – An Assessment of Assets and Capabilities for the City of San Diego and the San Diego Regional Economic Development Corporation. With several leading cleantech companies having a presence on both sides of the border, the study acknowledges that the San Diego – Baja California border region offers an ideal location that no other emerging cleantech hub can offer: close proximity of high technology R & D and competitively priced advanced manufacturing capabilities. Baja California also offers an option for firms that may find the amount of land available for large scale manufacturing limited in San Diego or prohibitively priced.

The study recommends that the San Diego region be benchmarked against several other leading cleantech hubs in terms of industry characteristics and policies relevant to cleantech cluster development. Global CONNECT is currently in discussions with potential funders and have proposed the benchmark study be completed by mid-summer 2008.

**NEW ACTION**  Explore the consolidation of employment clusters through the establishment of business service centers such as science and technology parks.

**Progress**

IMPlan is exploring consolidating employment sectors through the establishment of commercial services such as research and development parks.

**HOUSING ACTIONS**

**ISSUE**  ADDRESS FUTURE HOUSING SUPPLY AND DEMAND, HOUSING AFFORDABILITY ISSUES AND OPPORTUNITIES, AND INFRASTRUCTURE NEEDS OF EXISTING AND FUTURE RESIDENTIAL LAND USE

**NEW ACTION**  Promote comprehensive housing developments within Tijuana portion of the study area, which would include providing space for recreational activities, sports, green areas, and public facilities and services to improve the quality of life.

**Progress**

The City of Tijuana via IMPlan formally requested Mexico’s National Water Commission (CONAGUA) to dedicate surrounding federally zoned lands along portions of the Alamar River, located within the Strategic Plan study area, for the exclusive development of recreation infrastructure and rehabilitation of green spaces. In addition, IMPlan is proposing sustainable development strategies in the 2008-2030 Municipal Urban Development Plan.
IMPlan also has requested funds from Secretariat of Social Development (SEDESOL) to evaluate the social and environmental conditions of the Nido de las Aguilas canyon.

**NEW ACTION** Collaborate with IMPlan and the Urban Land Institute (ULI) on sharing resources, planning techniques, and strategies as they relate to Smart Growth planning.

**Progress**

The 2008 SANDAG Annual Event will begin to address this strategy. SANDAG, IMPlan and ULI are cosponsoring this event. The theme of the event proposes to discuss Smart Growth and sustainable development in the border region and opportunities for regional collaboration. This binational seminar is scheduled on June 3, 2008, in the San Diego region.

**ENVIRONMENTAL ACTIONS**

**ISSUE** ADDRESS CONSERVATION OF SENSITIVE HABITAT AND URBAN RIVER CORRIDORS (E.G., ALAMAR RIVER AND OTAY RIVER WATERSHED) AND WATER QUALITY

**EARLY ACTION** Support plans for habitat restoration and rehabilitation along the Alamar River riparian corridor.

**Progress**

In March 2008, the City of Tijuana allocated funds to IMPlan for the Phase I planning and construction of the Alamar River Expressway. A portion of these funds will be used to canalize a section of the Alamar River with cement. Previous plans called for canalizing the Alamar River with impervious materials that would allow filtration and recharging of the aquifer, as well as increasing the supply of potable water. However, this modification is proposed to safely channel water to the Tijuana River, which also would protect homes, infrastructure, and property.

The canalizing of the Alamar River would be approximately three kilometers which is the same length as the first phase of construction of the Alamar River Expressway. The new canal would begin at the area known as the “Bocina,” where the existing cement channel linking the Alamar River to the Tijuana River channel ends, and extend toward the intersection of Manuel Clouthier Boulevard. The Alamar River Expressway will eventually extend east, linking to roads connecting to the future Mesa de Otay II POE. Future channeling work extending east along the Alamar River would be more consistent with the original plans to use impervious materials.

Also in support of habitat restoration goals for this area IMPlan is currently seeking funds to implement a Species Recovery Plan.

**Next Steps**

In order to fully complete the construction of planned infrastructure for the Alamar River, it will first be necessary for the City of Tijuana to secure jurisdictional authority over the project footprint area and have all prior concessions on this land removed. As an initial step, IMPlan recently sent a letter to Mexico’s National Water Commission (CONAGUA) making this request. If this request is approved, it would expedite the City’s efforts to construct this road and related projects. In addition, IMPlan has drafted a Moratorium affecting the entire Alamar River project zone. The Moratorium calls for suspending issuances of any building and land use permits in order to ensure appropriate development of projects and infrastructure for this area. The City of Tijuana’s City Council approved a one year Moratorium in May 2008.
Also, as part of the first phase of this project approximately 300 families will be relocated to clear the way to construct the Alamar River Expressway, the cement channel, and complete habitat restoration plans. Construction of the channel is scheduled to begin in June 2008 and be completed in December 2008, while construction of the Alamar River Expressway will begin in late 2008 and is anticipated to be completed in late 2009.

Also as an ancillary approach, IMPlan will be monitoring the State of Baja California’s Commission for Public Services in Tijuana (CESPT) progress on delivering treated sewage water to the study area in order to foresee opportunities for irrigation and use by industry. In addition, the City of Tijuana’s Urban Administration Department (DAU), CESPT, and IMPlan are coordinating detailed plans to reuse treated sewage water for maintaining green spaces and landscaping located in public right-of-way. In support of this, the City’s urban development regulations will address the reuse of water.

**ISSUE** COLLABORATE WITH THE U.S. EPA IN THE BORDER 2012 PROGRAM, THE BINATIONAL AIR QUALITY TASK FORCE, AND THE SAN DIEGO COUNTY APCD IN BINATIONAL CLEAN AIR EFFORTS

**EARLY ACTION** Support the San Diego APCD cross-border clean air demonstration projects.

**Progress**

In 2005, the Air Pollution Control District (APCD) received a grant from the U.S. Environmental Protection Agency (EPA) to fund the San Diego/Tijuana Clean Diesel Demonstration Project, with the objective of mitigating the air quality impact of increased cross-border, heavy-duty diesel truck traffic. This project was completed in early 2008 and retrofitted 50 cross-border trucks with Diesel Oxidation Catalysts (DOCs) plus a Spiracle crankcase filtration system.

**EARLY ACTION** Link the creation of conservation areas to the objectives and goals established in “A Binational Vision for the Tijuana River Watershed” and the Border 2012 programs.

**Progress**

The California Biodiversity Council (CBC) is a statewide council established to design a strategy to preserve biological diversity and coordinate implementation of this strategy through regional and local institutions. The Council holds tri-annual meetings around the state to improve coordination among state and federal land management agencies and local interests.

In 2006, the CBC’s “Biodiversity along the Border” Committee created two working groups: the Tijuana Estuary Issues Working Group and the Las Californias Working Group. The Tijuana Estuary Issues Working Group focused on conservation easements and issues related to the Tijuana River Valley management, while the Las Californias Working Group focus was on exploring the implementation of actions outlined in the Las Californias Binational Conservation Initiative report.

At the CBC’s October 2007 meeting, the Las Californias Working Group presented the following recommendations: (1) create a Las Californias Binational Working Group to continue to collaborate on binational conservation between Mexico and the U.S. through the leadership of Mexico’s SEMARNAT (Secretariat for the Environment and Natural Resources) and the California Resources Agency; (2) seek funding sources for a community sewer system, sedimentation basins, and trash management to enhance the water quality of the Tijuana Estuary and
its watershed; and (3) explore developing a tire recycling plant in the San Diego region. The CBC accepted the report, and directed the Group to follow up on these recommendations and continue meeting through the Las Californias Binational Working Group, as the Tijuana River Estuary Issues Working Group’s activities were scheduled to sunset after the October 2007 CBC meeting.

In November 2007, the Las Californias Binational Working Group met in Tijuana to discuss next steps. The following summarizes key meeting highlights:

1. Mexican federal, state, and local agencies are exploring the possibility of entering into a formal Memorandum of Understanding (MOU) to establish a sister-like California Biodiversity Council entity to formally work with the CBC and partners from Non-Governmental Organizations (NGOs). If this entity were established, a future MOU between the CBC and Baja California’s biodiversity council would be explored. As a first step in this effort, representatives from the newly elected local and state governments in Mexico will be invited to the next Las Californias Working Group meeting, where they will be updated on the ongoing efforts and proposals.

2. The Las Californias Working Group agreed to meet three times annually, while the Mexican delegation has committed to meet monthly.

3. The Las Californias Working Group agreed to incorporate activities managed by the Tijuana River Estuary Issues Working Group to promote water quality and habitat conservation in the portion of the Tijuana River Watershed surrounding the Tijuana Estuary. This area also would include the Alamar River located within the study area of the Otay Mesa-Mesa de Otay Binational Corridor Strategic Plan. This proposal was accepted by the group and will be evaluated along with other proposals to determine priorities.

4. The Nature Conservancy (TNC) reported on efforts to conserve cross-border biological habitat linkages on the Mexican side of the border between Tecate and Tijuana and areas east of Tecate on both sides of the border adjacent to the southern portion of Borrego Springs State Park extending south to Parque Nacional Constitución de 1857 in Baja California (see Figure 5). This is part of the Park to Parque initiative, which would link parks from north and south of the border. In 2008, as an initial effort to connect these linkages, TNC purchased 1,100 acres of land between Anza-Borrego State Park and the U.S.-Mexico border. This land is critical habitat for the Quino Checkerspot Butterfly and links to lands south of the border. TNC also reported that the San Diego Natural History Museum is planning a binational Las Californias expedition within the Park to Parque linkage in 2009.

Next Steps

The Las Californias Working Group met in San Diego on May 9, 2008 and identified the following next steps for follow up:

- The Baja California delegation will continue to explore the possibility of entering into a formal Memorandum of Understanding (MOU) to establish a sister-like California Biodiversity Council entity to formally work with the CBC and partners from Non-Governmental Organizations (NGOs). In the interim, they are seeking a letter of support from the CBC that
would be submitted to key Mexican decision makers to secure their support. They also committed to work on consolidating work efforts and sharing resources by developing a work plan that would serve to define their roles and activities that they could jointly pursue.

- The City of Tijuana’s Environmental Protection Department (DMPA) is exploring a public-private partnership with Casas Geo Foundation, a Mexican homebuilder, who has offered to donate and rehabilitate approximately 19 acres of land as permanent open space. This collaborative effort is set to initiate in summer of 2008.

- IMPlan has identified the following three priority locations in the City of Tijuana for environmental conservation and/or rehabilitation: Vaso de la Presa; Cerro San Ysidro; and Canyon Laureles. As an initial step, IMPlan will be meeting with Cerro San Ysidro landowners that own properties designated for conservation. Discussions at these meetings are expected to focus on the negotiation of the exchange of development rights for setting aside conservation lands. These discussions are expected to begin in late spring 2008.

- TNC and Pronatura recently received approximately $30,000 (U.S. dollars) from a private donor, that will be use to advance planning efforts in Baja California to support the Park to Parque initiative.

- Work will continue in the Los Laureles Canyon to collect pavers for erosion protection. So far 68 percent of the pavers have been collected out of a total of the original 75,000 pavers necessary to pave one of the roads.

- With the new paving project, the goal is to collect two hundred and fifty thousand pavers by next year.

**NEW ACTION** Support APCD efforts to implement the SmartWay Transport project in the San Diego region.

**Progress**

To advance SmartWay Transport goals, EPA is conducting a Truck Stop Electrification (TSE) study. The study is evaluating TSE services to the international POEs. TSE focuses on services to reduce idling by freight trucks waiting to cross the border. It will be shared with stakeholders, including SANDAG, to refine the concept and understand opportunities and barriers to implementation.

The focus of the study is primarily for the Mexico side of the existing Otay Mesa border crossing. At this POE, trucks face significant waits to pass through Mexican control export facilities, U.S. Customs and Border Protection security inspections, and California safety inspections before being released into the United States. Many of the concept ideas are likely to be applicable to other border crossings for facilities on both sides of the border.

The initial effort will help address these and other considerations through research and discussions with stakeholders and to develop a more fully detailed concept for border crossing TSE. The study is analyzing the following key considerations and challenges to providing TSE services at POEs:

- The need to link border crossing TSE to a notification/appointment system and the willingness of customs, security, and other stakeholders to consider such a system;
The availability of land for a staging area that will accommodate the anticipated levels of use near the Otay Mesa POE and its cost;

The availability of grants and other funds for land and infrastructure on the Mexico side of the border;

The conditions under which a border crossing TSE would make commercial sense to TSE service companies;

A financial and pricing structure that is feasible for trucking companies, particularly smaller drayage operations;

Ownership (governmental or private) of the staging area; and

Buy in from the trucking community and potential incentives for cross-border truckers to use the staging area rather than staying in the queue.
To build upon EPA’s TSE study and advance SmartWay Transport goals, SANDAG recently applied for a 2008-2009 Partnership Planning Grant from Caltrans to study the feasibility of implementing truck stop electrification at San Diego - Tijuana Ports of Entry. If this grant is awarded, a feasibility study would be conducted to assess the viability of implementing TSE facilities serving the existing Otay Mesa POE and the future Otay Mesa East POE.

**Next Steps**

Caltrans’ awards of Partnership Planning grants is expected in the summer 2008.

In addition, the U.S. EPA and APCD also will be evaluating an alternate strategy to retrofit additional trucks. These trucks would be retrofitted with Diesel Particulate Filters (DPF) approved by ARB and EPA as Level 3 technology. The DPFs would reduce PM emissions by at least 85 percent (DOCs are Level 1 with 25 percent in PM emission reductions). Due to significant cost differences compared with retrofitting with DOCs, there would probably be only 15 to 25 trucks retrofitted in this program.