Otay Mesa – Mesa de Otay
Binational Corridor
Strategic Plan

April 2011
Progress Report
INTRODUCTION

As a follow up to the Regional Comprehensive Plan (RCP) initiatives in 2005, the SANDAG Borders Committee and the Committee on Binational Regional Opportunities (COBRO) identified the Otay Mesa – Mesa de Otay binational corridor study area for a binational planning pilot project. Transportation, economic development, housing, and environmental conservation were identified as the main issue areas for the Otay Mesa – Mesa de Otay Binational Corridor Strategic Plan.

The Otay Mesa – Mesa de Otay Binational Corridor Strategic Plan created a process for collaboration and established a framework for binational collaboration and planning. This partnership continues to grow through the implementation of several initiatives identified in the Strategic Plan and serves as a guide for future binational planning efforts.

The Otay Mesa – Mesa de Otay Binational Corridor Strategic Plan was approved in 2007 by both the SANDAG Board of Directors and the City of Tijuana City Council. Since then, three annual reports were produced in 2008, 2009, and 2010 to review progress on selected actions of the strategic plan. This report provides the latest updates highlighting progress made since the 2010 progress report.

TRANSPORTATION ACTIONS

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

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

Progress

In the past year, Caltrans, the U.S. General Services Administration (GSA), the County of San Diego, SANDAG, and the Mexican government continued to make progress to advance the implementation of the proposed Otay Mesa East – Mesa de Otay II POE and connecting roads on both sides of the border (Figure 1). 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 Mesa de Otay II POE and connecting roads.
PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT (PEIS/PEIR) FOR SR 11 AND THE OTAY MESA EAST POE

Caltrans, in cooperation with GSA and the Federal Highway Administration (FHWA), initiated project-level environmental clearance studies for State Route 11 (SR 11) and the Otay Mesa East POE. A Tier II Environmental Impact Report/Environmental Impact Statement (EIR/EIS) is evaluating the design and operational alternatives for SR 11, the POE, and a potential Commercial Vehicle Enforcement Facility (CVEF). The draft EIR is a key step toward environmental clearance for the implementation of the projects. It was released in November 2010 along with the draft project report for SR 11.

In addition, the engineering studies for both SR 11 and the new POE are also expected to be completed by December 2011. The design and right-of-way acquisition are scheduled for 2012 and construction is expected to begin in late 2013, with completion in late 2015.

Caltrans, in collaboration with GSA, Customs and Border Protection (CBP), and SANDAG, has engaged an architectural firm, Siegel and Associates, to undertake the Program Development Study (PDS) for the POE, which is 75 percent complete. Work on the PDS is anticipated to be complete by spring 2011. Furthermore, the team recently selected a legal counsel for the SR 11/Otay Mesa East POE project.

SANDAG and Caltrans are working jointly to develop a financial strategy to build the SR 11/Otay Mesa East POE project. SANDAG and Caltrans have engaged Baraday’s Capital as the Senior Investment Underwriters and Public Financial Management (PFM) to assist with bond placement and other elements of the project financing. SANDAG and Caltrans are also working with Mexico to conduct a traffic and revenue study for the project.

Finally, FHWA awarded SANDAG a grant to conduct an Intelligent Transportation Systems (ITS) Technology Pre-Deployment Study for the project. This study will create a Concept of Operations or blueprint for what ITS strategies should be implemented at the new
border crossing. ITS components of the project include a system that will notify travelers of border wait times so they are able to choose which POE to use to help streamline traffic by minimizing congestion.

MEXICO

Garita Mesa de Otay II (POE)

Road access projects to connect to the Mesa de Otay II POE are being planned by the Secretariat of Communications and Transportation (SCT) with input from Tijuana’s Municipal Planning Institute (IMPlan) and the Secretariat of Infrastructure and Urban Development of Baja California (SIDUE). There is no definite construction start date as this is dependent on a bidding process in Mexico. The executive project design stage is at 90 percent completion and construction cost estimates are approximately $50 million. This would include: Boulevard Las Torres as a passenger vehicle access, a dedicated boulevard for commercial truck access, and the construction of three interchanges at the Tijuana-Mexicali toll road with Boulevard Hector Teran Teran, Calzada Las Torres and the Cañón Rinconada cargo access to Mesa de Otay II POE. (Figure 2).

Figure 2
Otay Mesa East-Mesa de Otay II POE and Connecting Roads

Source: SIDUE, 2009
ISSUE IMPLEMENT IMPROVEMENTS TO EXISTING OTAY MESA - MESA DE OTAY POE AND CONNECTING ROADS

EARLY ACTION Collaborate with the City of San Diego in the development of the Public Facilities Financing Plan of the Otay Mesa Community Plan update in relation to local funding contributions toward regional transportation facilities and services to serve the proposed land uses under consideration

Progress

State Route 905 (SR 905)

SR 905 is a six-lane freeway being constructed in phases from Interstate 805 (I-805) to the Otay Mesa POE at the U.S.-Mexico Border to serve the POE and businesses and residents in the Otay Mesa area. It connects with other major interstate routes such as I-5 and I-805 and will include grade-separated local access interchanges and a freeway-to-freeway interchange with the South Bay Expressway (SR 125 South).

Construction of Phase 1A from Siempre Viva Road Interchange to Britannia Boulevard was completed in November 2010. Phase 1B from Britannia Boulevard to just east of the I-805/SR-905 Interchange began construction in July 2010 and is expected to be completed by summer 2012. In addition, SANDAG and Caltrans received $20.2 million in federal stimulus funds for Phase 2 to complete the connection of I-805 with SR 905. The interchange for SR 905, SR 125, and SR 11 would be part of Phase 3.

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

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

Progress

The planned South Bay BRT project is a 21-mile, reliable, high-frequency transit service between the Otay Mesa POE and downtown San Diego via eastern Chula Vista. SANDAG is in the process of preparing an Environmental Impact Report (EIR) for the South Bay Bus Rapid Transit (BRT) project. Figure 3 illustrates the South Bay BRT alignment. Several technical studies are being conducted including: traffic, habitat, noise, and visual. Extensive public outreach commenced in fall 2009 and continues as part of the EIR underway in compliance with CEQA. The Draft EIR is expected to be completed in the summer of 2011. The South Bay BRT project is on schedule to be implemented in 2014.
Figure 3
South Bay Bus Rapid Transit (BRT) Service

Source: SANDAG, 2011
ISSUE   FACILITATE IMPROVEMENTS TO CROSSBORDER AND REGIONAL PUBLIC TRANSPORTATION SERVICES

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 Otay Mesa East-Mesa de Otay II POE.

Progress

The City of Tijuana has been incorporating the Federal Program of Mass Transit Support to develop studies to be delivered to Mexico’s National Infrastructure Fund (FONADIN), which require the review of SCT, SEDESOL (Secretariat of Social Development) and SHCP (Secretariat of Finance), with the purpose of securing funding for project investment.

An initial set of studies that identified specific goals was delivered in 2010. Once approved by FONADIN, the solicitation bidding process will begin for construction and concession of two transit corridors and their respective auxiliary routes. Two high volume trunk lines will be constructed. Route 1 would traverse 18.4 Km or 11.4 miles and connect downtown Tijuana with the Puerta México (San Ysidro) POE and the southeastern part of the city. Route 2 (BRT type) would connect the Mesa de Otay area (including the POEs) along a 30 Km or 18.6 mile route to Santa Fe and Ciudad Industrial on the southwest portion of the city (Figure 5).

The following are the actions identified during the preparation of the 2011-2013 Municipal Development Plan:

- Update the Cost-Benefit Study and send modifications to SCT
- Pursue final approval from SCT and SHCP required by FONADIN
- Hold a workshop with FONADIN to establish a critical path for the next three years

Figure 4
Draft/Preliminary Corridor Analysis for the Metropolitan Zone

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<thead>
<tr>
<th>Corridor 1</th>
<th>Corridor 2</th>
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<tr>
<td>18% of the metropolitan zone demand is captured on Corridor 2 (Santa Fe – Otay)</td>
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<tr>
<td>27% of the metropolitan zone demand is captured on Corridor 1 (Refugio – San Ysidro)</td>
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<td>45% of the total metropolitan zone demand is captured on the two corridors</td>
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Source: IMPlan, 2009
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 (TIJ) toward its possible implementation.

Progress

In 2008, in an effort to advance the San Diego-Tijuana Airport Crossborder Facility (CBF), a private investment group, the Otay-Tijuana Venture, LLC, purchased 52 acres of undeveloped industrial land in Otay Mesa to develop the U.S. side of the crossborder airport terminal project. Its intent is to build a full-service crossborder passenger facility. The proposed San Diego-Tijuana CBF project includes the construction and operation of the CBF and an above-grade pedestrian bridge linking border facilities in the United States with a commercial passenger airport terminal at Tijuana International Airport (TIJ).

The CBF would enable ticketed airline passengers to travel between Mexico’s TIJ and San Diego, California, via an enclosed, elevated pedestrian bridge. The CBF will consist of a main building on the U.S. side of the border housing U.S. Customs and Border Protection CBP inspection facilities along with shops and services to accommodate travelers; an approximately 525-foot pedestrian bridge from the main building on the U.S. side connecting into TIJ’s passenger terminal on the Mexican side; and parking facilities and areas for car rentals and potentially bus service on the U.S. side. The CBF is expected to serve 2 million passengers annually, a number that is forecasted to increase to 4.9 million by 2030.

The following summarizes the latest project developments:

- Approval of the Presidential Permit from the U.S. Department of State was granted on August 4, 2010.
- Additional approvals that need to be secured include the City of San Diego’s Planned Development Permit and Vesting Tentative Map as well as evaluation through the California Environmental Quality Act (CEQA) approval process, which are currently underway.
- The project developer (Otay-Tijuana Venture, LLC.) anticipates that the crossborder airport terminal could start operating in late 2012.

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

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: Establish the Crossborder Innovation and Competitiveness Center.

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 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. Merck & Co., and its subsidiary Merck, Sharp, & Dohme - México, sponsored a multiyear initiative to link regions in Mexico with strengths in the life sciences with San Diego. This initiative began in 2007 and was completed in 2010.

In 2008, stakeholders from the Mexican regions of Cuernavaca, Guadalajara, Guanajuato, and Monterrey were in the process of formally establishing the Mexican Life Sciences Alliance to collaboratively promote their capabilities internationally, including a showing at the San Diego BIO tradeshow in June 2008. They also agreed to co-develop a proposal to the Inter-American Development Bank (IDB). Under a three-year grant, IDB funding would be used to support Alliance activities to build commercialization infrastructure (e.g., training and policies) within participating research institutions, business support services for new life science startup companies, and international outreach for research and business development opportunities which include linkages with San Diego's life sciences community. Under the proposal UCSD Extension (San Diego Dialogue and Global CONNECT) and Merck & Co., would serve as partners to the Alliance.

The Mexican Life Sciences Alliance became formalized as a Mexican civil association (asociación civil) in 2009, and submitted its proposal to the IDB shortly thereafter. Due to difficulties securing matching funds required by the IDB during the economic downturn, the Alliance's proposal was put on hold. Member regions are continuing to pursue development strategies with state and local sources of support.

Beginning in fall 2009, San Diego Dialogue and Global CONNECT launched a process of providing advice and input to new Mexican life science start-up firms. Among the five companies accepted into the program, two have offices in Otay Mesa. These were referred to CONNECT for participation in its Springboard coaching and mentoring program, and as of March 2011, one company has completed the program and the other four are still in process. San Diego Dialogue and Global CONNECT also held additional workshops in Mexico and San Diego. An April 2010 workshop focused on the different kinds of capital available to life science companies. The final workshop, held in September 2010 in Mexico City in partnership with Angel Ventures Mexico, provided an overview of angel investing and how to organize angel investor networks in Mexico. The latter workshop included participation by the San Diego Chapter of the Tech Coast Angels.

San Diego Dialogue and Global CONNECT continue to have ongoing relationships with regions in Mexico. Beginning in September 2010 and running through February 2011, both organizations partnered with Mexico's Technology Business Accelerator (TechBA) office in Phoenix, Arizona, to provide coaching and mentoring services to high technology companies that wish to further develop their business networks in the San Diego region. Of the ten companies in the candidate pool, four presented to intake panels in San Diego. Following the intake panels, two companies were selected for additional mentoring to refine their market entry strategy. Having completed the program, both companies are currently focused on lining up the resources needed for execution. Global CONNECT and
the mentors remain in contact with the companies to provide referrals and introductions on an ongoing basis.

ENVIRONMENTAL ACTIONS

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

EARLY ACTION Support the San Diego APCD crossborder clean air demonstration projects

Comprehensive Road Rehabilitation Project in the City of Tijuana (Programa Integral de Repavimentación)

According to the Border Environment Cooperation Commission (BECC), Tijuana’s air pollution problems are primarily caused by vehicular emissions and suspended dust particles. As part of the Border 2012 Program, EPA and SEMARNAT performed an emissions study of the border region, which ranked the Tijuana-San Diego metropolitan area air basin as first in the U.S. - Mexico border region in terms of pollutant emissions derived from mobile and area sources, including: nitrogen oxides (NOx), sulphur dioxide (SO), carbon monoxide (CO), and fugitive dust (PM10 and PM2.5).

Based on this information the City of Tijuana recognized the need to tackle these air pollution problems through improving its infrastructure. Its primary roadway system showed deterioration from potholes, erosion, shifting asphalt, and leveling and runoff problems caused by the uneven terrain of the city. Most roadways were over 30 years of age and had exceeded the average 8-14 year life cycle for asphalt pavements. Historically, the City had allocated a significant portion of its public works budget (US $750,000 on average) for the rehabilitation and maintenance of its principal roadways, particularly for the repair of potholes. However, despite this maintenance, the roadways continued to show substandard travel conditions, due to aging, weather, and high traffic volumes.

After analyzing various options for implementing a comprehensive solution to this problem, the City determined that the most viable long-term solution was the rehabilitation of the primary roadway system with a concrete overlay known as “whitetopping.” Cement concrete has a longer useful life and lower maintenance requirement compared to asphalt. Consequently, asphalt could be several times more expensive than whitetopping over the project’s life cycle.

In 2009, the City of Tijuana applied for a North American Development Bank (NADB) loan of US $109.8 million certified by BECC to complete construction of the Comprehensive Road Rehabilitation Project in Tijuana, Baja California. This represented 85 percent of the financing and of the total project cost of US$125.46 million.

The loan financing was provided under an innovative public-private financing structure designed to finance the project with debt for a term of 20 years. Under this arrangement, the private contractor, Cementos Mexicanos (Cemex), entered a construction and financing agreement with the City of Tijuana, which was converted into a long-term debt obligation between the City and NADB.

The project consisted of the rehabilitation of 160 km (100 mi) of primary roadways and an area of 4.3 million square meters (m2) (46.3 million ft2), and also included the rehabilitation of storm drains, construction or reconstruction of curbs and sidewalks, and the restoration of landscaping adjacent to the roadways.
The rehabilitation is anticipated to improve air quality in the region by facilitating traffic flows through improved road conditions and fewer street closures for repairs, eliminating the asphalt debris, and reducing the need for constant pothole repair using hot asphalt mix. The use of whitetopping instead of asphalt will also mitigate the heat island effect, as well as increase the efficiency of street lighting.

Greenhouse Gas (GHG) Emissions

The study titled GHG Emissions due to Vehicle Delays at the San Diego – Baja California Border Crossings addresses the public health concerns related to GHGs in the context of global climate change. It includes a study of estimated GHG emissions due to northbound vehicle delays at the three San Diego County – Baja California border crossings (located in San Ysidro, Otay Mesa, and Tecate) in fiscal year (FY) 2009.

Estimations were based on emission rates derived from EPA’s latest mobile vehicle emission simulator model, MOVES2010. FY 2009 emissions were approximately 80,000 metric tons (MT) of CO2Eq for the three border crossings combined, comprising 0.5 percent of total on-road transportation emissions in San Diego County based on the latest 2006 inventory. The study showed that Otay Mesa contributed 30 percent of total emissions and heavy-duty diesel trucks at the Otay Mesa commercial crossing contributed the most on a per vehicle basis (15.3 kg CO2Eq/crossing).

The paper includes recommendations to reduce GHG emissions for the border region including increasing SENTRI participation, decreasing border delay times, and creating a border crossing process that allows drivers to turn off their engines while waiting in line.

**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

The Alamar River, also known as the Arroyo Alamar, is located in the southern portion of the study area and is a major tributary in the Tijuana River Watershed. The Tijuana River is downstream and the Tecate River is upstream. The water that flows through this river eventually makes its way into the United States via the Tijuana River. SIDUE recently allocated funds for its channelization. This would protect nearby infrastructure, homes, and businesses from possible flooding and support development of future infrastructure around the River such as the planned Alamar Expressway (Vía Rápida) that would connect Tijuana’s Rio Zone with the future Otay Mesa East POE.