IMPACTS OF BORDER DELAYS
AT CALIFORNIA – BAJA CALIFORNIA
LAND PORTS OF ENTRY

Borders Committee | February 26, 2021

OVERVIEW: CALIFORNIA – BAJA CALIFORNIA LAND PORTS OF ENTRY
**CHALLENGE:** BORDER CROSSING DELAY

- Economic impacts
- Air quality impacts
- Social impacts

**BACKGROUND:** LEGACY OF STUDIES

**Economic Impacts of Wait Times at the San Diego – Baja California Border (2006):**
SANDAG and Caltrans study was first to quantify impacts of border delays to economic output and employment. Helped build case for the Otay Mesa East POE.

**Imperial Valley – Mexicali Economic Delay Study (2007):**
Imperial Valley Association of Governments (IVAG) and Caltrans study estimated economic impacts for Imperial County border crossings.

**Goods Movement Border Crossing Study and Analysis (2012):**
Southern California Association of Governments (SCAG) study estimated economic impacts for vehicle delay at Imperial County border crossings.

**Impacts of Border Delays at California – Baja California Land Ports of Entry (2021):**
Addresses need for a technically sound new assessment of economic impacts of delays experienced at the California – Baja California land POEs, as well as effects on regional air quality and greenhouse gas emissions.

Provides partner agencies, stakeholders, and public with information on the importance of reducing border crossing wait times.
BACKGROUND: WHAT HAS CHANGED SINCE THE PREVIOUS STUDIES?

1. 2008—2009 Great Recession and ripple effects on local & regional economies

2. Lower crossing volumes compared to “peak” years immediately prior to Great Recession
   » Crossborder travel still recovering. Fewer affected crossers means less impact.

3. Possible change in profile of border travelers
   » Elasticities (i.e., relative sensitivity to change) to wait times found to be lower than in previous studies, meaning travelers are less likely to forego trips/more likely to take the trip regardless of wait time, resulting in fewer lost expenditures.

4. Increased use of Technology/Trusted Traveler Programs
   » Leads to reduction in average delays overall

5. Introduction of “baseline wait time” and “excess wait time” concept
   » Accounts for time associated with required minimal CBP inspection, resulting in reduced measure of delay and lower adverse economic impact

6. Evolving market conditions
   » For example, economic rebounding after Great Recession, increased trade flows, and integrated supply chains with Mexico under NAFTA, etc.,

7. Investments in border infrastructure have improved travel times
   » i.e., San Ysidro Reconfiguration and Expansion Project (GSA), introduction of dedicated Ready Lane, opening of Cross Border Xpress (CBX) facility, opening of San Ysidro Ped West, Calexico West Modernization, etc.

BACKGROUND: WHAT HAS CHANGED SINCE THE PREVIOUS STUDIES? (CONT.)

Calexico West-Mexicali I POE – 2018. (Source: GSA)

Northbound POV lanes at San Ysidro-Puerta México POE – 2018. (Source: GSA)
BACKGROUND: ADDITIONAL CONTEXT

The scope/intent of the study is to assess conditions and impacts experienced under a “typical” border dynamic.

Initiated in 2016 with development of methodology and major data collection efforts by 2017.

Analysis does not account for:

- Impacts related to COVID-19 travel restrictions on crossing volumes.
- Impacts of the new United States-Mexico-Canada Agreement (USMCA) on trade.
- Impacts of recent Governor’s Executive Order (EO N-79-20) for the State of California related to sales of zero-emission personal and medium/heavy-duty vehicles.

ECONOMIC APPROACH: OVERVIEW OF ECONOMIC IMPACT ANALYSIS (EIA) MODEL

- Estimates the economic impacts on both sides of the border
- Accounts for most recent research findings
- Intensive data collection effort relying primarily on first-hand data (e.g., border survey data)
- Consensus-building and transparent process (expert peer reviews conducted April 2017)
- Uses Input-Output (I-O) Models in the U.S. and Mexico
AIR QUALITY EMISSIONS APPROACH: OVERVIEW

- Emissions analyzed include carbon dioxide (CO2), reactive organic gases (ROG), oxides of nitrogen (NOx), particulate matter smaller than 10 microns (PM10) and 2.5 microns (PM2.5), and carbon monoxide (CO)
- Relies on U.S.-Mexico Joint Working Committee (JWC) template and process descriptions based on input from CBP and Aduanas
- Uses queue models for each POE to replicate workflows
- Adjustments to JWC Template – California Implementation for vehicle activity and Emission Factors (EMFAC 2017)
- Binational consensus-building process (peer-review conducted Feb 2017)

PEER-REVIEW PROCESS: BINATIONAL CONSENSUS BUILDING

- Peer-review sessions to elicit feedback from subject matter experts and project stakeholders on the methodologies for estimating economic and emissions impacts of border delays.
- Panels with binational representation of experts from government, industry and academia.
## ANALYSIS SCENARIOS:

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<th>Base Year 2016 (Economic and Emissions Analyses)</th>
<th>2025 (Economic and Emissions Analyses)</th>
<th>2035 (Emissions Analysis Only)</th>
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| Existing Conditions | Includes planned improvements completed by 2025, including:  
| | • Phase 3 improvements at San Ysidro (completed)  
| | • Modernization of the cargo and pedestrian facilities at Otay Mesa (underway)  
| | • Phase 1 improvements at Calexico West (completed)  
| | Includes “Baseline 2025” scenario assumptions and additional capacity improvements completed by 2025, including:  
| | • Otay Mesa East (as 5x5 configuration)  
| | • Expansion of All-American Canal bridge (Calexico East)  
| | • Various transit and pedestrian access improvements in the vicinity of the POEs  
| | Includes “Baseline 2025 plus Capacity Enhancements, Transit, and Active Transportation” scenario assumptions  
| | • Otay Mesa East (as 5x5 configuration)  
| | Includes “Baseline 2025 plus Capacity Enhancements, Transit, and Active Transportation” scenario assumptions  
| | • Otay Mesa East (as 10x10 configuration)  

Note: The study assumes the future Otay Mesa East POE capacity will be expanded in phases. On opening day it will be in a 5x5 configuration and expanded to a 10x10 configuration at a later date. “5x5” and “10x10” refers to the number of privately owned vehicle and commercial vehicle primary lanes assumed.

## ECONOMIC IMPACTS:

### IMPACTS DUE TO DELAYS IN PERSONAL TRIPS AND FREIGHT MOVEMENTS AT ALL CALIFORNIA – BAJA CALIFORNIA POE’S

| Economic Output ($M) |  
|----------------------|--------------------------------------------------|-----------------------------------|----------------------------------|
|                      | Base Year 2016 | Baseline 2025 | Baseline 2025 + Capacity Enhancements |
| Economic Output ($M) | -$3,399       | -$1,340       | -$3,304                              |
| Employment (jobs)    | -$88,254      | -$97,159      | -$80,864                             |

**Mexico**

**United States**
STUDY FINDINGS: ECONOMIC IMPACTS

- Economic impacts in the 2025 Baseline scenario are partially mitigated by already-planned capacity increases. However, economic losses continue to grow in the future without additional improvements.

- Construction of improvements that represent large capacity increases (i.e., Otay Mesa East POE and All-American Bridge Expansion at Calexico East) provides significant relief and may fully mitigate economic losses anticipated in the 2025 Baseline scenario.

Completing planned POE infrastructure improvements by 2025 effectively “buys back” nearly 10 years of anticipated growth in economic loss – back down to slightly below 2016 levels.
EMISSIONS IMPACTS:
FROM POV BORDER CROSSINGS (SAN DIEGO COUNTY)

Summer Design Day CO2, ROG, NOx – San Diego County POEs
(Per 1000 POV Border Crossings)

EMISSIONS IMPACTS:
FROM COMMERCIAL BORDER CROSSINGS (SAN DIEGO COUNTY)

Summer Design Day CO2, ROG, NOx – San Diego County POEs
(Per 1000 Commercial Vehicle Border Crossings)
EMISSIONS IMPACTS:
FROM POV BORDER CROSSINGS (IMPERIAL COUNTY)

Summer Design Day CO2, ROG, NOx - Imperial County POEs
(Per 1000 POV Border Crossings)

EMISSIONS IMPACTS:
FROM COMMERCIAL BORDER CROSSINGS (IMPERIAL COUNTY)

Summer Design Day CO2, ROG, NOx - Imperial County POEs
(Per 1000 Commercial Vehicle Border Crossings)
EMISSIONS IMPACTS:
AVERAGE DAILY CO2 (FROM ALL CALIFORNIA-BAJA CALIFORNIA POE’S)

STUDY FINDINGS: AIR QUALITY/EMISSIONS IMPACTS

- Overall, emissions drop rapidly from 2016 to 2035 due to reduced delay resulting from investments in border infrastructure capacity and the multimodal transportation system, and lower polluting/more efficient vehicles

- The biggest contributor to emission reductions per vehicle crossing is ongoing turnover of the vehicle fleet – replacing older technology/higher polluting vehicles with newer technology/less polluting vehicles
STUDY RECOMMENDATIONS:
STRATEGIES FOR REDUCING BORDER CROSSING DELAY

- **Investment in POE Infrastructure/ Physical Capacity**
  - Expand existing infrastructure (Otay Mesa Modernization, Calexico East bridge expansion, etc.)
  - New facilities (Otay Mesa East-Mesa de Otay II POE)

- **Improve Operations**
  - Efficiencies for customs (SAT-Aduanas PITA program, Unified Cargo Processing, dynamic lane management, appointment systems, extended hours of operations, etc.)

- **Improve Access to POEs**
  - Active transportation connections, enhanced transit services (i.e., increased frequencies, Calexico West Intermodal Transit Center), zero/near-zero emission truck prioritization, etc.

- **Corridor-Wide Improvements**
  - Regional Border Management System

- **Support for Binational Coordination on Long-Term Strategies**
  - Leverage partnerships to develop crossborder mobility solutions

Recommendations also align with State of California planning goals and objectives in:
- 2016 California Sustainable Freight Action Plan (CSFAP)
- 2020 California Freight Mobility Plan (CFMP)
- 2021 California – Baja California Border Master Plan (BMP)

PROJECT LINKS AND CONTACT INFORMATION

**PROJECT WEBPAGE:**
http://sandag.org/borderdelays

**KEY STAFF CONTACTS:**
Rachel Kennedy
(619) 699-1929
rachel.kennedy@sandag.org

Zach Hernandez
(619) 699-6912
zachary.hernandez@sandag.org
California-Baja California Regional Context

- **7**: Existing land ports of entry (POEs) in the California-Baja California region
- **154M**: Crossed through California-Baja California POEs in both directions (2019 estimate)
- **21.2%**: Growth in individual border crossings (2009-2019)
- **#1**: The region’s POEs are the busiest border crossings in the Western Hemisphere
- **1.4M**: Northbound truck crossings at Otay Mesa, Tecate, and Calexico East POEs (2019)
Regional Context

4 Existing land ports of entry in the San Diego-Baja California region
112M Crossed through San Diego County ports of entry in both directions (2019 estimate)
30.7% Growth in individual border crossings (2009-2019)
#1 The region’s ports of entry are the busiest border crossings in the Western Hemisphere
1M Northbound truck crossings at Otay Mesa and Tecate ports of entry (2019)

Challenge
Opportunity

SR 11 / Otay Mesa East Port Entry

Solution

A new port of entry that will...

- Reduce Wait Times
- Reduce Greenhouse Gas Emissions
- Fuel Economic Growth
- Enhance Regional Mobility
- Strengthen Border Security and Resiliency
- Bolster Binational Trade
Overview

State Route 11/Otay Mesa East Port of Entry Project Features

Construction Update

Building a Binational Roadway
Construction Update

Otay Mesa East
Binational Coordination

- One Single Toll Collection Location on the U.S. side
- Toll Sharing
- Mirror ITS Functionality
- Mexican side will fund Port of Entry and Right-of-Way with Public Funds and Finance Roadway
- Joint Goal to Open Facility Late 2024

TCEP Cycle 2: Otay Mesa East Critical Path Forward Project

- TCEP Award $42.5 Million
- Utility Connections & Relocation
- Design
Next Steps

- Agreements
- Financing Strategy
- Utility & Site Preparation
- Design
- Funding the construction phase
Thank you