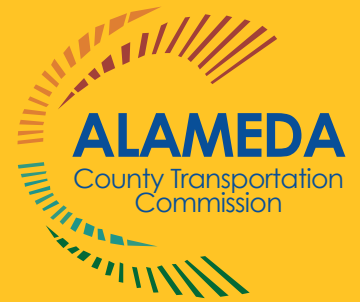


The I-680 Southbound Express Lane



FY2014-15 Annual Report

SUNOL SMART CARPOOL LANE JOINT POWERS AUTHORITY





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Message from the Chair

September 20, 2015 marked the five-year anniversary of the first express lane opening in Northern California. Since opening, more than 2.7 million solo drivers have chosen to use the I-680 Express Lane, reaching their destinations at speeds generally 10-15 mph faster than speeds motorists experience in the general purpose lanes during peak commute hours; at times this differential can reach up to 35 mph.

Each year since inception, the lane has attracted more users while maintaining excellent service and reliability. This year, more than 750,000 vehicles that would have used the general purpose lanes paid a toll to use the express lane, reducing congestion within the corridor while maintaining reliability within the high-occupancy vehicle (HOV) lane. With the aid of a dynamic pricing program, the express lane maintained excellent service and was never so

congested that restriction to “HOV-only” status was necessary.

The Sunol Smart Carpool Lane Joint Powers Authority, with our members the Alameda County Transportation Commission and the Santa Clara Valley Transportation Authority, have set the stage for the regionwide Bay Area Express Lanes, a planned 550-mile network of managed lanes that includes the recently-opened express lanes on I-580 in the Tri-Valley in eastern Alameda County and future express lanes including I-680 northbound (parallel to the existing express lane along the Sunol Grade) and along I-680 in Contra Costa County. Together, we are providing the region with improved travel choices.



— **Jerry Thorne**, *Chair*
Sunol Smart Carpool Lane
Joint Powers Authority
(Sunol JPA)

“Express Lanes maximize the efficiency of the entire roadway and make travel times more reliable. They encourage carpools, vanpools, and clean-air vehicles and they support transit. Ultimately, everyone on the corridor spends less time in stop-and-go traffic.”

— **Mayor Bill Harrison**,
Sunol JPA Vice Chair



“Express lanes offer the option to better utilize the existing HOV lane capacity, giving solo drivers the option to pay a toll to use the express lane. They provide more reliable travel times and improve overall corridor performance.”

— **Arthur L. Dao,**
Alameda CTC
Executive Director

The I-680 Southbound Express Lane

Since opening in September 2010 as Northern California’s first express lane facility, more than 2.7 million solo drivers have chosen to get to their destination faster by using the I-680 Southbound Express Lane. Located on a 14-mile stretch of southbound Interstate 680 from Highway 84 south of Pleasanton to Highway 237 in Milpitas, the express lane was designed to manage growing traffic congestion on I-680 and to provide people with a new commute choice between the East Bay and Silicon Valley. It is governed by the Sunol Smart Carpool Lane Joint Powers Authority.

The I-680 Express Lane project launched a new era of technology-based lane management for drivers in Northern California, giving solo drivers the choice to pay a toll for access into the HOV lane when there is excess

capacity. This year, the express lane experienced an average maximum capacity of 67 percent during peak commute hours and an overall maximum capacity of 92 percent; therefore, the express lane was never restricted to HOV-only use due to excessive congestion. Carpool lane users continue to enjoy the benefits of sharing rides at no cost — and enjoy the benefits of the express lane, since access to the lane is regulated to ensure reliable travel times.

Usage of the toll lane has increased steadily since opening. During fiscal year 2014-2015 (FY2014-15), more than 750,000 toll payers used the express lane and paid an average toll of \$2.58 per trip. An estimated 37 percent of all express lane users this year were toll-paying users.

History

In 1998, the I-680 corridor between Pleasanton and Milpitas in eastern Alameda County known as the Sunol Grade, was one of the top three most-congested corridors in the Bay Area, leading to the creation of the Solutions on Sunol Coalition to address and find solutions to this congestion. A transportation systems management report identified the need for operational improvements in both directions of Interstate 680 along the Sunol Grade. By the end of 2002, a 14-mile southbound HOV lane opened between Route 84 and Route 237 as a first step to manage congestion.

After the successful implementation of express lanes in Southern California, the state legislature passed Assembly Bill 2032 in 2004 that authorized the Alameda County Transportation Commission (Alameda CTC) to conduct, operate and administer a value-pricing program (express lane)

within two corridors in Alameda County including the Sunol Grade Corridor. Conversion of the I-680 southbound HOV lane began in 2008 and included roadway widening and installation of electronic toll-collection equipment. Operation of the express lane began in September 2010.



The I-680 express lane is part of the major commute route connecting the Tri-Valley Area (Dublin, Livermore and Pleasanton) in Alameda County with South Bay cities in Santa Clara County and Silicon Valley businesses.



How Does the Express Lane Work?



The I-680 Southbound Express Lane operates Mondays through Friday from 5 a.m. to 8 p.m. Solo drivers who want to use the lane need a FasTrak® toll tag (a standard tag or the new Flex tag that became available in mid-2015). Each time drivers use the express lane, the toll amount is deducted from their FasTrak account balance. The operation is fully electronic, with no tollbooths or tollgates, so customers do not need to slow down or stop to pay.

Carpools with two or more people, vanpools, motorcycles and transit buses always use the lane for free, as do permitted zero- and low-emission vehicles. To avoid being charged a toll, carpool drivers need to place their FasTrak toll tag in a mylar bag provided by FasTrak or use the new FasTrak Flex toll tag set to 2 or 3+ occupancy.

Dynamic pricing: The I-680 Southbound Express Lane was one of the first managed lanes in the nation

to deploy a full dynamic pricing system intended to provide a consistent and reliable travel time in the express lane. Dynamic pricing means that tolls vary based on real-time traffic conditions in the corridor. Posted toll rates increase when congestion is heavier and decrease when traffic is lighter. The goal is to keep the express lane operating at a reliable level of service, which generally means a minimum speed of 45 mph.

Electronic tolling: Tolls on the I-680 Express Lane can range from \$0.30 during off-peak hours to a maximum of \$7.50 (to travel the entire corridor) during the most congested commute days. During FY2014-15, the average morning commute toll (7-10 a.m.) to travel the entire corridor was \$4.27; toll rates for shorter segments were lower. Toll rates are evaluated and modified as needed every three minutes based on congestion levels.

Three entry and two exit points:

The express lane has three entry points and two exit points. One half-mile before each entry point, an overhead electronic sign displays the current toll rate. Solo drivers have a choice: pay the current toll to use the express lane or use the general purpose lanes for free. The amount drivers pay is the price displayed at their entry point, even if toll rates change, while they are in the express lane.



Enforcement zone readers are used as an aid to the CHP enforcement and determine if a vehicle has a valid FasTrak toll tag.



Express Lane Operation

- Carpools, motorcycles, transit vehicles and eligible zero- and low-emission vehicles use the express lane toll free without a toll tag, with a standard FasTrak stored in its mylar bag or with a FasTrak Flex toll tag set to 2 or 3+.



Toll Enforcement

- Express lane tolls are collected via FasTrak® toll tags, which are required for any solo driver to use the lane. The California Highway Patrol (CHP) provides toll enforcement on the I-680 Express Lane, employing both the normal patrols provided on other Bay Area freeways as well as extra officers contracted for additional enforcement to prevent access and toll violations.
- The facility has a two-foot buffer stripe separating the general purpose and express lanes. Crossing the double lanes to enter the I-680 Express Lanes is a driving violation. Additional violations include avoiding the toll readers, straddling double white lines and traveling in the toll lane without a working FasTrak toll tag. In FY2014-15, CHP reported stopping more than 1,000 drivers for HOV violations.





Corridor Usage and Toll Rates

The express lane corridor has seen increased traffic in all lanes over the past several years. While there has been a greater increase in the express lane than in the general purpose lanes, the express lane continues to function with excellent service levels. This is due, in part, to the dynamic

pricing that helps keep congestion in the express lane at a manageable level. Data below from FY2014-15 helps to answer key questions:

- Where are corridor users going?
- Where do they come from?
- How much does it cost to use the express lane?

Use of the express lane is increasing faster than use of the general purpose lanes.

Figure 1. Percent Change in Average Daily Traffic Volumes

Use of the express lane is increasing faster than use of the general purpose lane. In FY2014-15, the average daily volume increases for the general purpose and express lanes were 4 percent and 12 percent, respectively, compared to FY2013-14. The number of toll trips totaled over 750,000, an increase of 13 percent from the previous year.

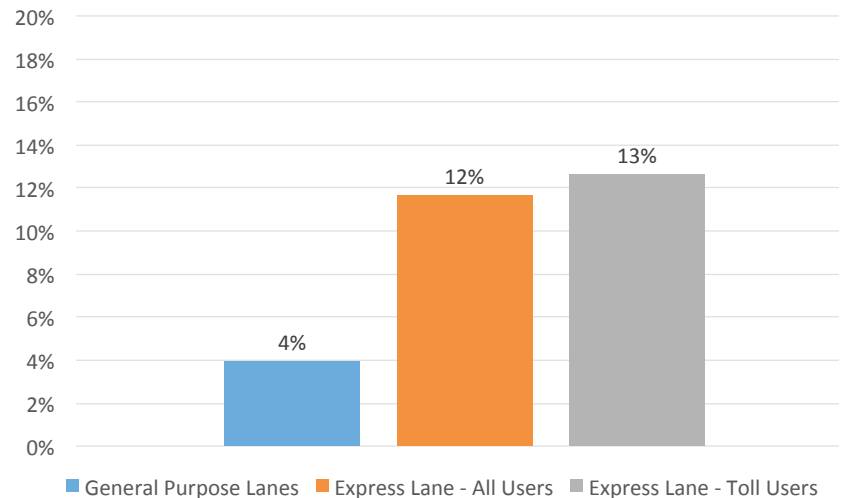


Figure 2. Average Daily Lane Speeds

The central segment from Washington Boulevard to Mission Boulevard is the most-congested segment in the corridor. During the morning peak hour of 8:15-9:15 a.m., the express lane speeds averaged 10-20 mph greater than the general purpose lane speeds.

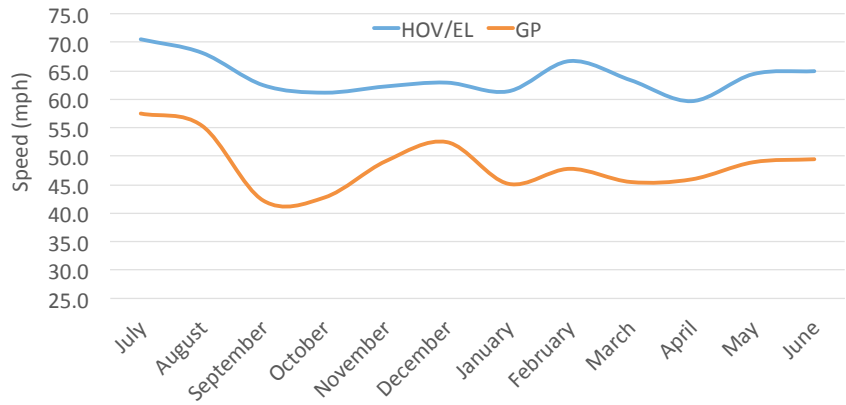


Figure 4. Toll User Corridor Usage - Where are they going?

Nearly 40 percent of toll users within the corridor travel the entire length from Andrade Road to Calaveras Boulevard. Nearly 90 percent travel the segment between Washington Boulevard and Mission Boulevard, making it the most-congested segment within the corridor.

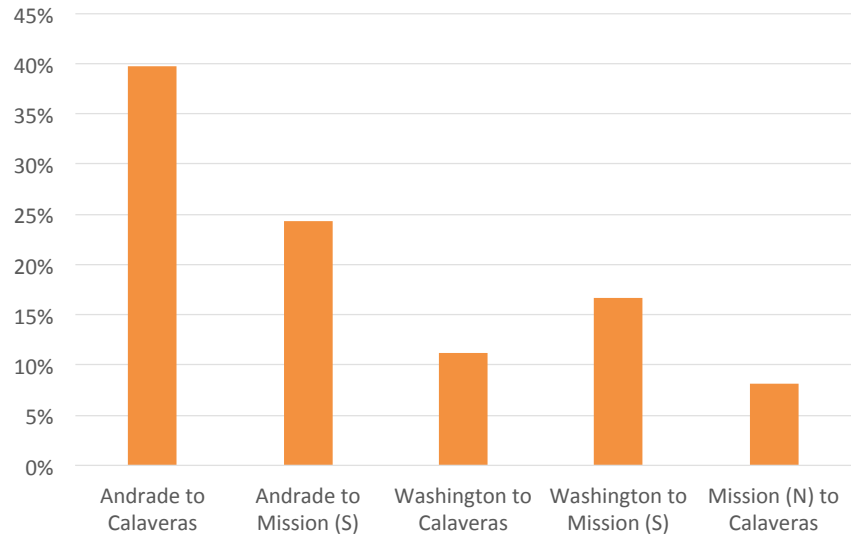


Figure 3. Express Lane Users by County

I-680 Express Lane users come predominantly from Alameda County, Contra Cost County and Santa Clara County.

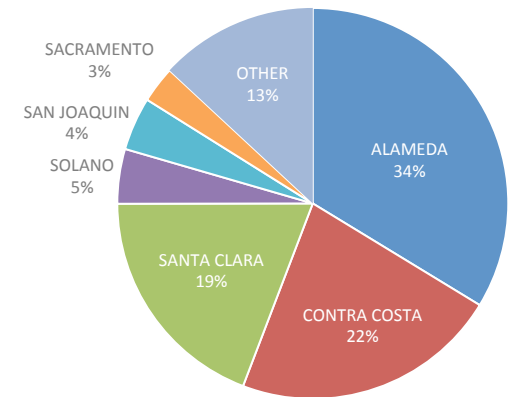


Figure 5. Average Daily Toll Rates – Am I paying more this year?

In FY2014-15, the average peak-period posted toll rate to travel the entire corridor was \$4.27, and to travel just the central segment was \$2.19. The maximum potential toll rate of \$7.50 was reached 106 of the 261 days of revenue operations. Although the posted toll rates increased by 15-45 cents from FY2013-14 to FY2014-15, the average toll paid by all users increased only 20 cents from FY2013-14 to FY2014-15.

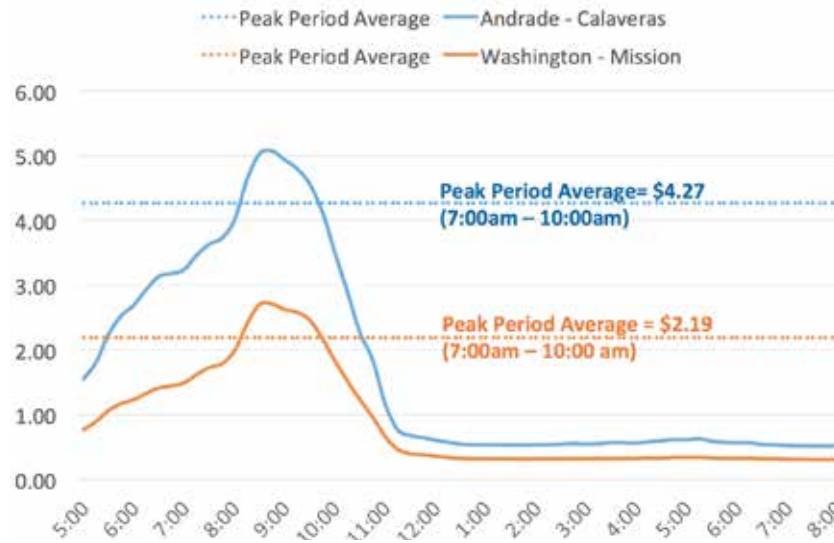
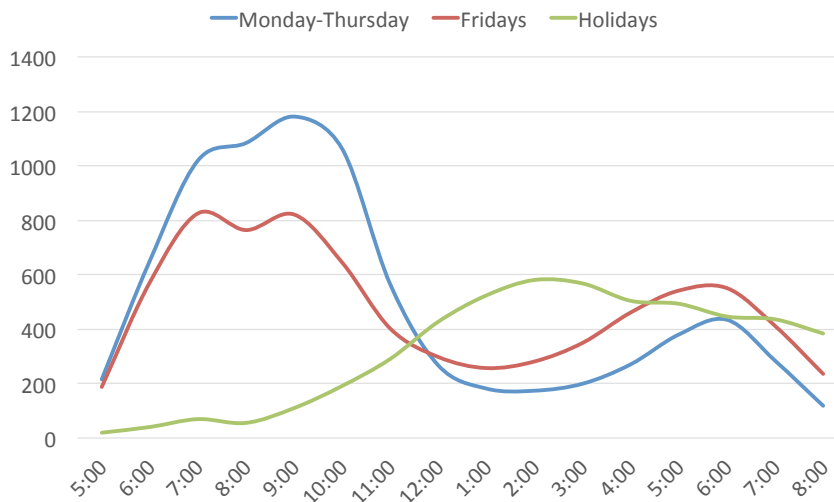


Figure 6. Average Daily Express Lane Volumes – Why do holidays matter?

Drivers use the I-680 Express Lane most frequently Monday through Thursday, between 7 a.m. and 10:00 a.m. The lane operates Mondays through Friday from 5 a.m. to 8 p.m. In the I-680 corridor, the afternoon peak is greater on Fridays than on other weekdays due to travelers heading out of town for the weekend. On holidays, there is also a higher, and longer, afternoon peak period. Maintaining tolling on holidays helps keep the express lane moving during these periods of higher congestion.



Corridor Revenues

When the Sunol JPA was formed in 2010, it agreed to reinvest the net revenues derived from the express lanes directly back into the project corridor. Toll revenues are used to first pay for operating and maintaining the I-680 Express Lane, and then to fund additional transportation projects such as a future HOV/express lane project on northbound I-680 or transit operations along the corridor,

including express bus and other transit service.

Increased usage by toll users means increased net revenues. In FY2014-15, the I-680 Express Lane revenues totaled over \$1.9 million, exceeding the cost of maintaining and operating the lane for the first time. During the coming year, the Sunol JPA will seek to adopt an expenditure plan for future net revenues.



Sunol JPA Members

Chair: Jerry Thorne, City of Pleasanton Mayor, Alameda CTC Commissioner

Vice Chair: Bill Harrison, City of Fremont Mayor, Alameda CTC Commissioner

Members: Jason Baker, City of Campbell Mayor, VTA Board Member

Scott Haggerty, Alameda County Supervisor, District 1, Alameda CTC Commissioner

David Haubert, City of Dublin Mayor, Alameda CTC Commissioner

Staff Liaisons

Arthur L. Dao, Alameda CTC Executive Director

Kanda Raj, Express Lanes Program Manager

Elizabeth Rutman, Express Lanes Operations Manager

I-680 Express Lanes Website

www.alamedactc.org/680Express

Sunol Smart Carpool Lane Joint Powers Authority

The Sunol Smart Carpool Lane Joint Powers Authority (Sunol JPA) is an independent joint powers authority created to operate the I-680 Express Lane. Its board of directors consists of five elected officials, four voting members from Alameda County and one voting member from Santa Clara County. Voting rights were determined based on each county's share of road miles within the corridor (approximately one-fifth of corridor miles are within Santa Clara County).

The Sunol JPA meets monthly, and meetings are open to the public. Meeting agendas and minutes are posted on the Alameda CTC website at www.alamedactc.org

Partnerships

The Alameda County Transportation Commission, the California Department of Transportation and the California Highway Patrol provide services to the Authority contractually. For toll collection, the Sunol JPA has an agreement with the Bay Area Toll Authority to use its FasTrak® electronic toll-collection system.

The I-680 Southbound Express Lane is part of the growing Bay Area Express Lanes Network. On completion in 2035, the Bay Area will have 550 miles of express lanes operated by the Metropolitan Transportation Commission (MTC), Santa Clara Valley Transportation Authority (VTA) and Alameda CTC. More information at www.bayareaexpresslanes.org

Financial Information, Fiscal Year 2014-15

Toll revenues received on the I-680 Southbound Express Lane are used to pay for operations and maintenance of the express lane. The express lane is subsidized by Alameda CTC grant funding for the I-680 Southbound High Occupancy Toll Lane Project, and net revenues will be reinvested in the project corridor. The Sunol JPA Board of Directors will determine how to spend net revenues through the biennial adoption of an expenditure plan. Funds are eligible for capital and operations needs that directly serve this corridor including converting the ingress and egress on the I-680 Southbound Express Lane to continuous access to allow for more open and free-flowing access between the general purpose lanes and the toll lane, for the I-680 northbound lane project or for transit services that directly serve this corridor.

- Total net position increased by \$0.40 million or 10.28 percent from \$3.87 million to \$4.27 million as of June 30, 2015 compared to June 30, 2014. This increase is mostly due to a decrease in accrued liabilities related to a reversal of a prior year accrual. Capital assets comprised \$1.95 million or 45.71 percent of the total net position at June 30, 2015.
- For the year ended June 30, 2015, cash and cash equivalents increased by \$0.03 million or 1.11 percent from \$2.63 million to \$2.66 million. This increase is mostly attributed to an increase in operating revenue over fiscal year 2014.
- Operating revenue was \$2.07 million during fiscal year 2015, an increase of \$0.08 million or 4.23 percent over fiscal year 2014.
- The Sunol JPA's total operating expenses were \$1.67 million during fiscal year 2015, a decrease of \$0.046 million or 21.72 percent from fiscal year 2014. This decrease is largely due to a reversal of a prior year accrual for maintenance costs. Operating expenses for fiscal year 2015 were primarily comprised of \$1.43 million of program operations and maintenance costs.

For more information about the I-680 Express Lane and future express lane projects, visit www.alamedactc.org/ExpressLanes.



Sunol Smart Carpool Lane Joint Powers Authority
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www.AlamedaCTC.org/ExpressLanes