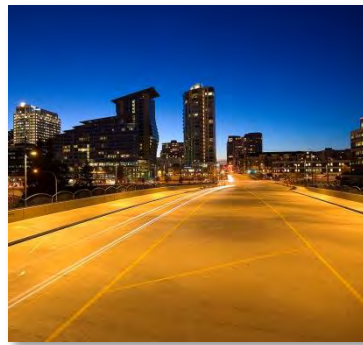
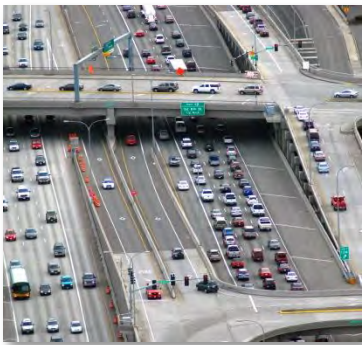


I-405 Express Toll Lanes Performance Update



Patty Rubstello, P.E.
Assistant Secretary, Toll Division

Washington State Transportation Commission

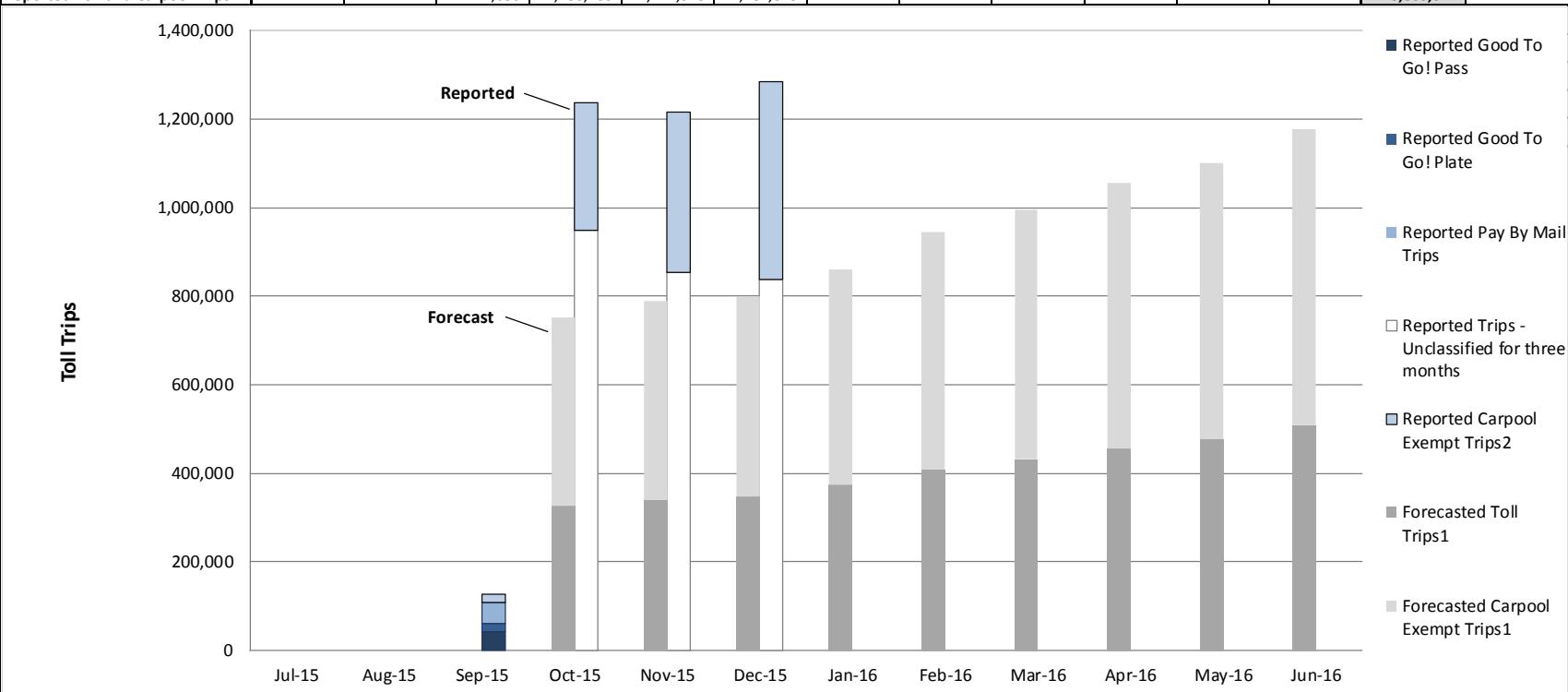
Agenda

- FY 2016 Q2 Traffic and Revenue
- Operations Update
 - Early operations
 - Express toll lane adjustments
 - Operations options
 - Evaluation
 - Challenges
 - Coordination
 - Schedule

FY 2016 Q2 Traffic and Revenue

FY 2016 Q2 Forecast and Reported Toll Trips

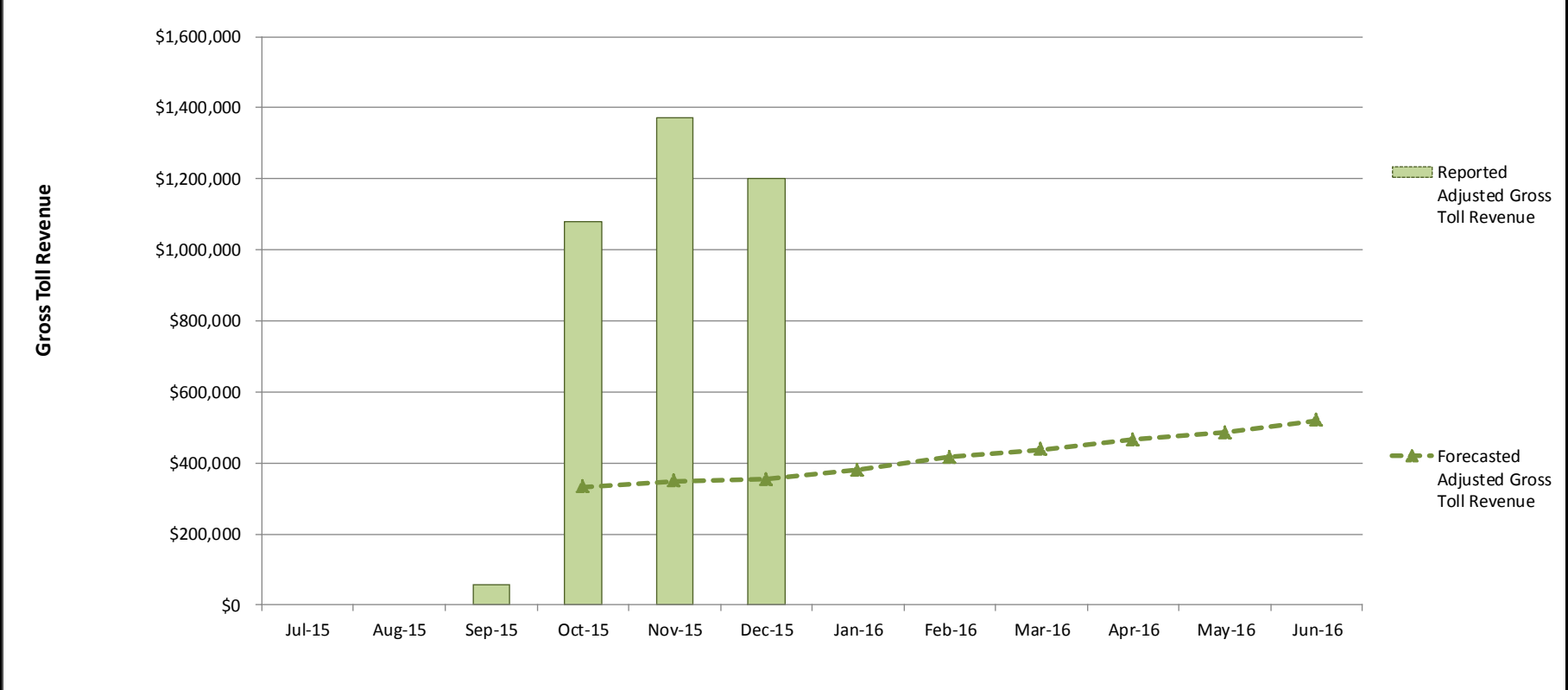
TRIPS	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Fiscal Year To Date	Annual Total
Forecasted Toll Trips ¹	-	-	-	326,000	341,000	347,000	373,000	409,000	431,000	457,000	477,000	509,000	1,014,000	3,670,000
Reported Toll Trips ²	-	-	107,592	950,294	853,584	837,982							2,749,452	
Variance From Forecast	-	-	107,592	624,294	512,584	490,982							1,735,452	
Variance - % Change	-	-	-	191.5%	150.3%	141.5%							171.1%	
Reported Good To Go! Pass ³	-	-	39.2%	-	-	-	-	-	-	-	-	-	39.2%	
Reported Good To Go! Plate ³	-	-	17.7%	-	-	-	-	-	-	-	-	-	17.7%	
Reported Pay By Mail ³	-	-	43.2%	-	-	-	-	-	-	-	-	-	43.2%	
Forecasted Carpool Exempt Trips ¹	-	-	-	427,000	447,000	453,000	488,000	535,000	564,000	599,000	625,000	669,000	1,327,000	4,807,000
Reported Carpool Exempt Trips ²	-	-	20,058	286,109	361,389	446,333							1,113,889	
Variance From Forecast	-	-	20,058	(140,891)	(85,611)	(6,667)							(213,111)	
Variance - % Change	-	-	-	(33.0%)	(19.2%)	(1.5%)							(16.1%)	
Reported Toll and Carpool Trips	-	-	127,650	1,236,403	1,214,973	1,284,315							3,863,341	



- Forecast values based on EAG Scenario C Revised with the Following Key Assumptions: \$0.25 Pay By Plate Fee | \$2 Pay By Mail Toll Increment | \$0.75 Fixed Minimum Toll | 24/7 Operations | 3+ Free for 8 Hours Peak | 2+ Free Off-Peak
- Reported values are based on total monthly trips adjusted for non-revenue and duplicate trips.
- Trips by payment method are based on values extracted from the monthly Toll Business Report and are subject to change as transactions are resolved.

FY 2016 Q2 Forecast and Reported Toll Revenue

GROSS TOLL REVENUE	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Fiscal Year To Date	Annual Total
Forecasted Adjusted ¹				\$332,000	\$348,000	\$353,000	\$380,000	\$416,000	\$438,000	\$466,000	\$486,000	\$519,000	\$1,033,000	\$3,738,000
Reported Adjusted ²	\$0	\$0	\$56,015	\$1,079,310	\$1,373,490	\$1,200,211							\$3,709,025	
Variance From Forecast	\$0	\$0	\$56,015	\$747,310	\$1,025,490	\$847,211							\$2,676,025	
Variance - % Change	-	-		225.1%	294.7%	240.0%							259.1%	



1. Values based on EAG Scenario C Forecast with revisions. The forecasted adjusted gross toll revenue equals the gross toll revenue potential minus the adjustments for Pay By Plate fees and leakage.
2. Reported adjusted gross toll revenue corresponds to "Tolling revenue" values reported in WSDOT annual financial statements. Values may change to align with year-end reports.

Operations Update

Early operations

Early successes

- ✓ Initial express toll lane usage is higher than expected.
- ✓ Transit, vanpools and carpools have a more reliable trip in both directions.
- ✓ I-405 is moving more vehicles during peak commutes.
- ✓ Southbound traffic is better across all lanes.
- ✓ Northbound traffic has shown improvement in the express toll lane system.
- ✓ Long and medium trips are receiving faster travel times.

Challenges

- ✓ Northbound traffic general purpose congestion has shifted to SR 527.
- ✓ Shorter trips are not seeing the same benefits, of long and medium trips, due to access and shifts in congestion.
- ✓ Weekend congestion has increased with the slower ramp up of infrequent users.
- ✓ The single lane system capacity constraint drives toll lane prices.

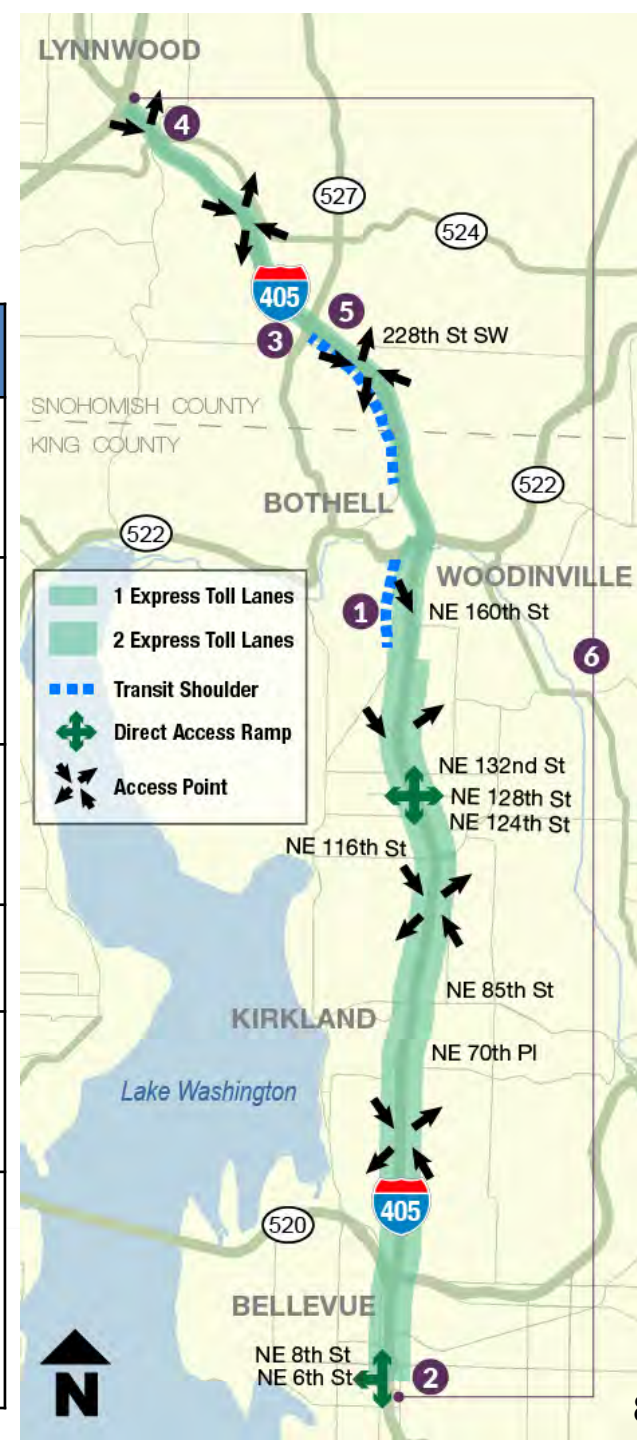
Continuing to Monitor

- ✓ Carpool use is lower than expected, but has been steadily increasing.
- ✓ Demand for the single lane system has resulted in reaching the maximum toll rate sooner than predicted.
- ✓ Review INRIX report and work with them to understand analysis and assumptions.

WSDOT responds to driver feedback with changes

Completed Adjustments

Location	Adjustment	Date completed
1 SB I-405 at NE 160 th St	Added skip stripes to better define the start of second express toll lane and inside general purpose lane.	October 1, 2015
2 NB I-405 at NE 6 th St	Added clarifying pavement markings to eliminate driver confusion and extended existing access point.	December 18, 2015
3 SB I-405 at SR 527	Lengthened access point to the north to allow drivers more time to merge into and out of the express toll lanes.	December 18, 2015
4 NB I-405 at I-5	Lengthened access point to allow drivers additional time to merge to I-5.	January 22, 2016
5 NB I-405 access at SR 527	Lengthened access point to allow drivers additional time to merge in and out of the express toll lanes.	January 22, 2016
6 Entire Corridor	WSDOT made changes to the algorithm which calculates toll rates to respond to the demand for the lanes and to keep the express toll lanes moving.	Ongoing



WSDOT responds to driver feedback with changes

Planned Adjustments

Location	Adjustment	Completion Schedule
7 SB I-405 at NE 6 th St	Adding pavement markings to clarify for drivers the exit to NE 6 th St and which lane continues onto I-405 southbound	February
8 NB I-405 at SR 520	Adjust the access type and length to provide more open access to the express toll lane. This will improve general purpose congestion in the SR 520 interchange area during afternoon commutes and weekends.	March – weekend closure and weather dependent
9 NB at NE 160 th St	Adding additional signage and lengthening access point to provide driver clarity and more time to merge to SR 522.	Next few months



WSDOT responds to driver feedback with changes

Monitoring

Location	Status
Entire Corridor	<p>Continue to monitor corridor traffic patterns and operations at these locations:</p> <ul style="list-style-type: none"> 10 SB NE 70th PI to SR 520 – Evaluating greater access for Kirkland 11 NB and SB 3 lane section between SR 522 and I-5 – Evaluate options to address limited capacity in section of I-405 with 3 lanes 12 SB SR 522 to NE 160th St – Evaluate access improvements to address demand during morning peak



WSDOT responds to driver feedback with changes

Future Projects

WSDOT has not done any detailed engineering or traffic analysis on the future projects listed below. Some of this work would need to be done to better understand costs and phasing opportunities for all options.

- Additional funding would allow WSDOT to better define the project's scope, including the environmental needs and to conduct a practical design review of the larger capacity improvement projects.

Location	Project	Cost
<p>13 NB I-405 between SR 520 and NE 70th PI</p>	<p>Add northbound auxiliary lane between SR 520 and NE 70th St</p> <p>Timeline: Environmental document needed, 1-3 years open to traffic after funding approved. This timeline depends upon environmental impacts, such as fish passage.</p>	<p>\$5-30 million depending on existing constraints and environmental fish passage issue</p>
<p>14 NB I-405 between SR 527 and I-5</p>	<p>Add a general purpose hard running shoulder on northbound I-405 from SR 527 to I-5</p> <p>Timeline: Environmental document needed, 2 years open to traffic after funding approved. This timeline depends upon environmental impacts, such as noise walls, fish passage.</p>	<p>\$30-50 million</p>



Operations Options

Nighttime Operations– “Open to All”

- Evaluating which hours to be open
 - 7:00 pm to 5:00 am
 - 8:00 pm to 5:00 am

Weekend and Holidays

- Evaluating who will be in the lanes
 - “HOV 2+ Only”, no pass required
 - “Open to All”

NOTE: Under any condition, if WSDOT isn't managing the express toll lanes, the Direct Access at NE 6th in Bellevue and 128th in Kirkland will need to be “HOV 2+ Only”

Evaluation of Options

Each option will be analyzed to determine the effects to:

- Traffic Operations (general purpose and express toll lanes)
- Customer expectations
- Implications to the rest of the highway network
 - HOV Lanes
 - SR 167 HOT Lanes
- Revenue
- Enforcement

Challenges

Access

- Limited access points constrain access to the ETLs
- NE 6th and 128th Direct Access Ramps need to be HOV 2+

Consistency

- Pass requirement for HOV
- Hours of operation with SR 167 and HOV network

Signing

- Holidays are difficult to sign

Potential congestion

- Single lane section needs to be evaluated
- Unable to manage the lanes in response to an emergent issue

Unintended consequences

- Potential pressure to open HOV lanes on weekends
- Unable to reintroduce pricings if needed due to change in traffic

Coordination

Coordination with partner agencies:

- Washington State Patrol
- Transit
- Federal Highway Administration
- Federal Transit Administration

Schedule Discussion

For more information:

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