

# SR 520 Bridge Net Toll Revenue Report 2023 Update

March 17, 2023

Prepared for:  
**Washington State  
Department of  
Transportation**

Prepared by:  
**WSP USA**



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## Acronyms and Abbreviations

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ACH	Automated Clearing House
ADA	Americans with Disabilities Act
AFS	Accounting and Financial Services
BOS	Back Office System (software)
CPR	Customer Program for Resolution
CSC	Customer Service Center (operations)
DES	Department of Enterprise Services Office of Risk Management
DOL	Department of Licensing
ESHB	Engrossed Substitute House Bill
ETL	Express Toll Lane
FTE	Full Time Equivalent
GTC	General Toll Consultant
HOV	High Occupancy Vehicle
HOT	High Occupancy Toll (lane)
IT	Information Technology
LES	Law Enforcement Systems
NOCP	Notice of Civil Penalty
NWR	Northwest Region (division of WSDOT)
O&M	Operations and Maintenance
OEO	Office of Equal Opportunity
ORM	Office of Risk Management
PBM	Pay By Mail
PBP	Pay By Plate
R&R	Repair and Replacement
RSA	Revenue Stabilization Account (reserves)
RTS	Roadway Toll System
SOC-1	Service Organization Control One
SR	State Route
STA	Short Term Account
T&R	Traffic and Revenue
TEF	Transportation Equipment Fund
TNB	Tacoma Narrows Bridge
WSDOT	Washington State Department of Transportation
WSF	Washington State Ferries (WSDOT Marine Division)
WSTC	Washington State Transportation Commission
YOE	Year of Expenditure





# 1 | Introduction and Key Forecast Changes

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## Background and Purpose

This report documents the preparation of the “January 2023 forecast” of net toll revenues for the State Route (SR) 520 Bridge across Lake Washington. The forecasts presented herein reflect the toll rates and policies adopted by the Washington State Transportation Commission (WSTC) on August 24, 2021, with the planned changes taking effect on July 1, 2023 (FY 2024). This *SR 520 Net Toll Revenue Report—2023 Update* builds upon previous annual forecasts, including the most recent “April 2022 forecast” and accompanying *SR 520 Bridge Net Toll Revenue Report—2022 Update*, dated May 20, 2022. As in the past years, WSDOT’s statewide traffic and revenue consultant, Stantec, prepared the traffic and gross toll revenue potential (T&R) forecasts for the SR 520 Bridge that serve as the basis for the net toll revenue projections. Stantec’s forecasts consider the potential impacts to traffic and revenue related to the continually evolving trip-making patterns resulting from the COVID-19 pandemic health crisis. Similarly, the January 2023 forecast of net toll revenue projections are based upon the latest available information about future toll collection and facility maintenance expenditures and revenue adjustments. This report documents the updated projections, describing the changes in key assumptions, inputs, and influences of operating experience compared to the previous April 2022 forecast, with select comparisons back to the initial projections from November 2011.

The net toll revenue projections are used to update the project’s financial plan and represent the operating cash flow that would be available to pay debt service on toll financing, pay deferred sales tax on construction, and contribute to other reserve accounts, including one for periodic capital repair and replacement of facility and toll collection components. Specifically, the projections are used to demonstrate that tolls on the SR 520 Bridge are predicted to produce revenues in each fiscal year of the forecast in amounts sufficient for the state to meet its financial obligations in compliance with the bond covenants in Section 7.02(a) of Master Resolution number 1117 (MBR), and to support the WSTC as they opt to revise any toll rates or policies.

All annual amounts in this document are expressed in terms of the state fiscal year (FY), which runs from July 1 to June 30. The SR 520 forecast horizon currently covers 35 years, extending from FY 2023 through FY 2056.

### September 2011 Forecast

For purposes of this document and related materials, the initial CDM Smith investment-grade traffic and gross toll revenue potential forecasts and accompanying net toll revenue projections that were used to support the initial October 2011 bond financing are collectively referred to as the “September 2011 forecast.”

### September 2012 Forecast

In September 2012, as part of ongoing financial planning and the negotiation of a loan from the United States Department of Transportation (USDOT) through the Transportation Infrastructure Finance and Innovation Act (TIFIA), CDM Smith completed a revised traffic and gross toll revenue potential forecast. Accompanying net revenue projections were also prepared, along with memoranda covering these revisions. During their subsequent toll rate setting process, the WSTC opted to round toll rates to the nearest nickel (\$0.05) for the July 1, 2013 (FY 2014) and future planned toll increases.

For purposes of this document and related materials, the traffic and gross toll revenue potential forecasts, along with the accompanying net toll revenue projections—inclusive of the minor revision for nickel rounding—are collectively referred to as the “September 2012 forecast.”

#### October 2013 Forecast

CDM Smith performed a comprehensive traffic and gross toll revenue forecast update in 2013. Detailed updates to the facility operations and maintenance (O&M) costs, toll collection O&M costs, and revenue adjustments were also prepared in late summer 2013 to yield updated net revenue projections. Collectively, these traffic and gross toll revenue forecasts, along with the net toll revenue projections, are referred to as the “October 2013 forecast.”

#### November 2014 Forecast

CDM Smith performed another comprehensive traffic and gross toll revenue forecast update in 2014. As in 2013, a detailed review of the facility O&M costs, toll collection O&M costs, and revenue adjustments were made in the summer and fall of 2014, ultimately leading to revised inputs and assumptions to select forecast components. Collectively, these current traffic and gross toll revenue forecasts, along with the accompanying net toll revenue projections, are referred to as the “November 2014 forecast.”

#### November 2015 Forecast

In preparation for the September 2016 final bond sale, another comprehensive traffic and gross toll revenue forecast update was prepared by CDM Smith in 2015. Their update incorporates new socio-economic forecasts, additional model years, traffic and tolling performance trends to date, and a revised construction closure schedule and roadway configuration related to the newly funded SR 520 “Rest of the West” improvements.

In the same manner as in previous forecasts, a detailed review of revenue adjustments, facility O&M and repair and replacement (R&R) costs, and toll collection O&M and R&R costs were made in the latter half of 2015, resulting in revised inputs, assumptions and net toll revenue projections.

Subsequent amendments to the 2015 traffic and revenue forecasts were completed in March 2016 to capture revised future toll rates and policies proposed and subsequently adopted by the WSTC. Specifically, previously planned step increases in weekday toll rates ranging from 12 to 18% by time of day plus a 2.5% increase on weekends was replaced with two 5% toll increases in FY 2017 and FY 2018, covering both weekdays and weekends. In addition, the night tolling from 11 PM to 5 AM was deferred one year from FY 2017 to FY 2018. Finally, the WSTC opted to maintain the current transit and registered vanpool exemptions, but not extend a toll exemption to carpools with three or more occupants, as originally assumed when the new floating bridge with HOV lanes opened in April 2016. The net revenue projections were similarly amended on March 25, 2016 and provided in support of toll rate setting activities and an update to the SR 520 financial plan.

#### November 2016 Forecast

CDM Smith’s 2016 traffic and gross toll revenue projections capture a number of minor refinements, including updated population and employment forecasts, actual patterns that reflect slight shifts in traffic by time of day and day of week, updated construction closure assumptions for FY 2017, the addition of impacts due to construction closures on the parallel I-90 bridge, and a slight reduction in the *Good To Go!* account share of total transactions. Overall, these changes result in lower traffic and revenue through FY 2025, and slightly higher values thereafter.

## November 2017 Forecast

In early 2017, the State contracted with Stantec to provide the November 2017 SR 520 traffic and revenue forecast. Stantec provided the updated traffic and revenue forecasts in late October 2017, and these forecasts form the basis for the net revenue projections documented in the *SR 520 Bridge Net Toll Revenue Report—2017 Update*. Stantec’s traffic and gross toll revenue potential forecasts are based on their proprietary traffic and revenue forecasting tools and processes and reflect different sources of information and assumptions for population and employment forecasts, users’ values of time, and toll payment method shares for *Good To Go!* account transponder pass and Pay By Plate transactions as well as Pay By Mail transactions. Compared to the previous November 2016 forecast prepared by CDM Smith, Stantec’s November 2017 forecast had slightly lower toll transactions over the full forecast horizon and lower gross toll revenue potential estimates in most years, with the exceptions of FY 2019 where the number of construction closure days was revised downward, and the four years at the end of the horizon, FYs 2053-56.

## November 2018 Forecast

Stantec’s 2018 traffic and gross toll revenue projections reflect revised socioeconomic and demographic projections and model adjustments to more accurately align with recent actual experience, including a revised distribution of payment methods and differentials in average toll rates between payment methods. Projected revenue gains due to both higher average toll rates and toll traffic forecasts are partially offset by the change in payment split assumptions and revisions to the construction schedule, the latter which reflects an additional year of restricted capacity in FY 2027 due to the revised timing for completion of the Portage Bay Bridge and I-5 Connector. Overall, these changes resulted in higher traffic and gross toll revenue potential in all years of the forecast period.

## November 2019 Forecast

Stantec’s 2019 traffic and gross toll revenue projections reflect updated socioeconomic and demographic projections for the region, and this body of work represents the final pre-pandemic T&R forecast as a basis of comparison for future forecasts. Additional model adjustments were made to more accurately align with recent refinements on how tolls by payment method are categorized in reported data and differentials in average toll rates between payment methods. Further revisions to the construction schedule were incorporated to reflect the latest information available at the time of the forecast in mid-2019. Construction revisions were due to changes in the schedule for the Portage Bay Bridge and I-5 Connector. Overall, these changes resulted in minor changes to traffic and a half a percent reduction in gross toll revenue potential over the forecast horizon, primarily due to the shift of Pay By Mail trips to *Good To Go!* trips, which forgo the \$2.00 higher Pay By Mail toll rate.

## June 2021 Forecast

Stantec’s 2021 traffic and gross toll revenue projections comprise refinements and adjustments to the previous pre-pandemic forecast to capture both the impacts of COVID-19 pandemic and beyond. Specifically, the June 2021 forecast incorporates the likely perpetuating effects of the pandemic on changing work patterns resulting in a future “new normal” in which there are fewer work-based trips in the regional network. Also, the forecast accommodates the revised toll schedule which includes a one-time tailored set of toll increases by time of day averaging 15% overall in FY 2024, and its impact on SR 520 bridge use. Overall, these changes resulted in a 10.2% decrease in forecast horizon toll transactions while

the forecast for gross toll revenue potential slightly increased by 0.6% over the forecast horizon, compared to the previous November 2019 forecast.

#### April 2022 Forecast

Stantec’s 2022 traffic and gross toll revenue projections comprise further refinements and additional traffic trends in this second post-pandemic forecast. April 2022 forecast updates capture the latest trends in the still evolving work patterns contributing to the “new normal” in which there are fewer work-based trips and more discretionary trips in the regional network. In addition, this update includes revised assumptions on construction closures which now extend into FY 2030. As with the June 2021 forecast, this update incorporates the WSTC’s revised toll schedule which includes a one-time tailored set of toll increases by time of day averaging 15% overall taking effect on July 1, 2023 for FY 2024. Compared with the June 2021 forecast, the current update resulted in a 4.6% decrease in forecast horizon toll transactions while the forecast for gross toll revenue potential decreased by 7.4% over the forecast horizon.

#### January 2023 Forecast

Stantec’s January 2023 traffic and gross toll revenue projections include limited revisions from the April 2022 Forecast. The FY 2022-31 values are revised to account for actual experience through September 2022 (FY 2023) and modifications to the construction closure schedule, resulting in small fluctuations. For FY 2032 through the end of the forecast horizon in FY 2056 there were no changes in the traffic and gross toll revenue potential forecasts. As with the April 2022 forecast, this update incorporates the WSTC’s revised toll schedule which includes a one-time tailored set of toll increases by time of day averaging 15% overall that takes effect on July 1, 2023 (FY 2024). Compared with the April 2022 forecast, the current update resulted in a 0.2% decrease in forecast horizon toll transactions and gross toll revenue potential.

#### Project Description

The SR 520 corridor stretches nearly 13 miles between I-5 in Seattle to the west and SR 202 to the east, crossing I-405 at about the halfway point, and serving various Eastside communities, including Bellevue, Kirkland and Redmond. The SR 520 Bridge Replacement and HOV Program includes the portion of the corridor between I-5 and I-405, and is comprised of five major components:

- 1) Pontoon Construction;
- 2) Eastside Transit and HOV Project;
- 3) Floating Bridge and West Connection Bridge Project;
- 4) West Approach Bridge North; and
- 5) I-5 to Lake Washington (Rest of the West), which includes the West Approach Bridge South.

The total program cost is currently estimated at \$4.91 billion, all of which is now funded. The final element of the \$2.84 billion portion of the program— the West Approach Bridge North — was completed in late summer of 2017, and with the bike/pedestrian connection completed in December 2017. Essentially, these program components have replaced the existing four-lane floating bridge and upgraded the corridor to six lanes (two general purpose lanes and one high occupancy vehicle lane in each direction) between the west approach to the floating bridge in Seattle and the I-405 interchange on the Eastside.

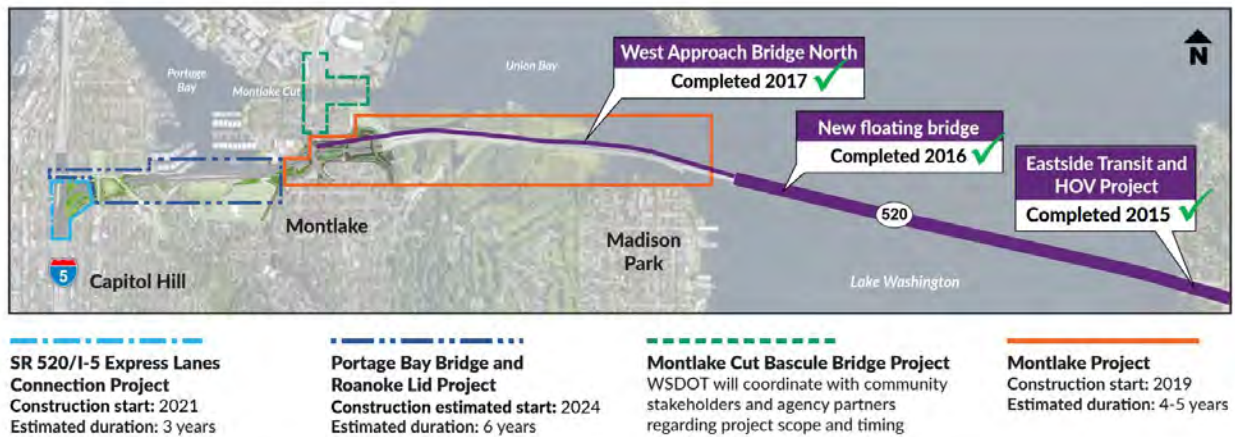
In mid-2015, the State Legislature passed legislation establishing new transportation revenue (the Connecting Washington account) and included \$1.64 billion in funding to complete SR 520’s planned

improvements between I-5 and the western shore of Lake Washington, referred to as the Rest of the West.<sup>1</sup> Additionally, the SR 520 Corridor Program received the \$24 million balance of needed funding as \$14 million authorized in 2015 and \$10 million in existing agency resources authorized in 2014.<sup>2</sup> The 2021-23 enacted budget provides up to \$59.6 million in American Rescue Plan Act of 2021 federal funds to offset operations and maintenance expenses on SR 520 during FYs 2022-23 due to COVID-19 pandemic related reductions in traffic and revenue collections.

On March 25, 2022, the Washington State governor signed the Move Ahead Washington plan into law. Move Ahead Washington dedicates funding for the SR 520 Seattle Corridor Improvements West End Project, including \$80 million from Move Ahead appropriation, \$325 million of the state route number 520 corridor account-state appropriation, and \$1 million of motor vehicle account-private/local appropriation. The funding includes \$100,000 for noise mitigation activities. Furthermore, the law states that upon completion of the Montlake Phase of the West End Project, the department shall sell any property not used for permanent transportation improvements.

The current net revenue forecast accounts for construction activity associated with the Rest of the West improvements and resulting additional lane and full bridge closures, primarily during weekend and night periods between 11:00 PM and 5:00 AM through operational completion. The forecast does not assume any revenue as a result of property sales attributed to completion of the Montlake Phase of the West End Project.

**Exhibit 1: SR 520 Bridge Replacement and HOV Program Map**



Note: this Project Map does not identify the cities of Aberdeen, Kenmore, and Tacoma elsewhere in the state where pontoon development and construction previously occurred under the SR 520 Floating Bridge design-build contract.

WSDOT began tolling the existing SR 520 Bridge across Lake Washington in late December 2011 to help pay for a replacement floating bridge across the lake and other corridor improvements. Time of day variable tolling was implemented to manage congestion on the corridor, using all-electronic tolling with no toll booths.

<sup>1</sup> See Chapter 44, Washington Laws of 2015 (2ESSB 5987) and Chapter 43, Washington Laws of 2015 (2ESSB 5988). Annual appropriated amounts can be found here: [http://leap.leg.wa.gov/leap/Budget/Detail/2015/cTLEAPDoc2015NL-1\\_0629.pdf](http://leap.leg.wa.gov/leap/Budget/Detail/2015/cTLEAPDoc2015NL-1_0629.pdf), project M00400R on page 8.

<sup>2</sup> See Chapter 10, Washington Laws of 2015 (2ESHB 1299) and Chapter 222, Washington Laws of 2014 (ESSB 6001)



More information including costs, benefits, maps, and photos can be found on the SR 520 Bridge Replacement and HOV Program website: <https://wsdot.wa.gov/construction-planning/major-projects/sr-520-bridge-replacement-and-hov-program>.

## Key Changes in the January 2023 Net Revenue Projections

This section highlights the key changes to the January 2023 net revenue forecast results compared with the previous April 2022 and initial September 2011 projections, measured over a common forecast horizon from FY 2023 through FY 2056. Exhibit 2 compares the primary components of the January 2023 forecast with the initial September 2011 forecast.

### Exhibit 2: Gross to Net Revenue Comparison — January 2023 / September 2011 (FY 2023-56)

Forecast Category (#) = T&R table column reference	September 2011 Forecast (\$ millions)	January 2023 Forecast (\$ millions)	Variance (\$ millions)	Variance (%)*
<b>Total Toll Transactions (8)</b>	<b>1,240.1</b>	<b>1,134.7</b>	<b>(105.5)</b>	<b>-8.5%</b>
<b>Gross Toll Revenue Potential (11)</b>	<b>4,348.0</b>	<b>4,249.7</b>	<b>(98.3)</b>	<b>-2.3%</b>
Subtotal: Revenue Adjustments	(59.5)	14.7	74.2	-124.8%
Subtotal: O&M Costs	(1,311.0)	(1,301.2)	9.8	-0.7%
<b>Net Toll Revenue (30)</b>	<b>2,977.5</b>	<b>2,963.2</b>	<b>(14.4)</b>	<b>-0.5%</b>
Subtotal: R&R Costs + Deferred Sales Tax	(345.2)	(670.9)	(325.7)	+94.4%
Total after Deferred Sales Tax and R&R	2,632.3	2,292.3	(340.1)	-12.9%

\* A positive dollar variance on negative forecast values represents a cost (loss) reduction, with the negative percentage (%) variance representing percentage reduction in the cost (loss). The percentage change going from a negative value to a positive value or vice versa doesn't compute, and is only shown as a "+" or "-" based on the sign of the variance.

Exhibit 3 compares the primary components of the January 2023 forecast with the prior April 2022 forecast.

### Exhibit 3: Gross to Net Revenue Comparison — January 2023 / April 2022 (FY 2023-56)

Forecast Category (#) = T&R table column reference	April 2022 Forecast (\$ millions)	January 2023 Forecast (\$ millions)	Variance (\$ millions)	Variance (%)*
<b>Total Toll Transactions (8)</b>	<b>1,137.1</b>	<b>1,134.7</b>	<b>(2.5)</b>	<b>-0.2%</b>
<b>Gross Toll Revenue Potential (11)</b>	<b>4,258.2</b>	<b>4,249.7</b>	<b>(8.5)</b>	<b>-0.2%</b>
Subtotal: Revenue Adjustments	(9.8)	14.7	24.5	-250.0%
Subtotal: O&M Costs	(1,355.4)	(1,301.2)	54.2	-4.0%
<b>Net Toll Revenue (30)</b>	<b>2,892.9</b>	<b>2,963.2</b>	<b>70.2</b>	<b>+2.4%</b>
Subtotal: R&R Costs + Deferred Sales Tax	(634.6)	(670.9)	(36.3)	+5.7%
Total after Deferred Sales Tax and R&R	2,258.3	2,292.3	33.9	+1.5%

\* A positive dollar variance on negative forecast values represents a cost (loss) reduction, with the negative percentage (%) variance representing percentage reduction in the cost (loss). The percentage change going from a negative value to a positive value or vice versa doesn't compute, and is only shown as a "+" or "-" based on the sign of the variance.

## Traffic and Gross Revenues

The January 2023 forecast includes the following changes from the prior April 2022 forecast:

- The January 2023 forecast incorporates the latest updated construction closure schedule through FY 2031.



- The near-term toll traffic forecasts were revised downward based on reported monthly traffic data through September 2022 resulting in lower toll transaction volumes of 6.8% in FY 2023 and 3.4% in FY 2024.
- As a result of the January 2023 T&R forecast changes, the cumulative toll traffic over FYs 2023-32 decreased 0.9%, resulting in a 0.2% decrease over the full horizon through FY 2056, compared with the April 2022 forecast. Transaction shares by payment method were largely unchanged with *Good To Go!* transactions accounting for 89.6% of total transactions over the forecast horizon, the same as the April 2022 forecast.
- The January 2023 forecast for Gross Toll Revenue Potential decreased by similar percentages as did toll traffic relative to the April 2022 forecast. Total gross toll revenue potential decreased by 0.8% over FYs 2023-32 and decreased by 0.2% over the full horizon through FY 2056, compared with the April 2022 forecast. Based on the increased transparency of the reported data and adjustments to payment shares, the following gross toll revenue potential revisions were made by payment method:
  - *Good To Go!* Transponder and Pay By Plate (account-based) gross toll revenue potential decreased by 0.8% over FYs 2023-32 and by 0.2% through FY 2056
  - Pay By Mail gross toll revenue potential decreased by 0.7% over FY 2023-32 and 0.2% through FY 2056

#### Revenue Adjustments

- Positive variances in Adjusted Gross Toll Revenue Collected of 0.3% (column 16) between the January 2023 forecast and April 2022 forecast more than offset the decrease of 0.2% in Gross Toll Revenue Potential (column 11)
  - Beyond revenue collected from the mailing of an initial toll bill for a Pay By Mail transaction, no additional revenues associated with further collection efforts (second toll bill and/or sending a Notice of Civil Penalty (NOCP) were received in FY 2022 due to implementation issues experienced with the transition to the new back-office system vendor. Partial revenues from further collection efforts on transactions from FY 2022 and part of FY 2023 were assumed to be captured in the final two months of FY 2023 with a return to full toll bill revenue collection procedures and assumptions now assumed for FY 2024. The April 2022 forecast assumed that further toll bill collection efforts would commence in late FY 2022 with full toll bill and NOCP processing in FY 2023.
    - Some revenue earned in FY 2022 is assumed to be collected in FY 2023 when further recovery efforts commence in the third quarter of FY 2023.
    - Partial recovery of fees and lower recovery of unpaid toll bills converted to NOCPs is the result of a combination of (1) lower general recovery of second toll bills and toll bills sent for transactions that have aged over 60 days, and (2) resetting of the Customer Program for Resolution (CPR) with the transition to a new vendor, which allows customers, including those who have used CPR in the past, further opportunities to waive rebilling and NOCP fees if they register for a *Good To Go!* account.

- Based on initial experience with the new vendor’s transaction processing, the unreadable license plate leakage assumption decreased from 6.0% of photo transactions in the April 2022 forecast to 4.5% of photo transactions in the January 2023 forecast.
  - With lower license plate leakage rates in the January 2023 forecast compared with the April 2022 forecast, there is a corresponding increase of 1.4% in the \$0.25 Pay By Plate fees collected (column 12).
- Due to continued lags in escalating unpaid toll bill recovery efforts and second toll bill mailings, which reduces the number of address checks, the overall rate assumed for invalid mailing addresses increased from 4.5% in the April 2022 forecast to 6.0% in the January 2023 forecast. This is considered to be a conservative assumption until refined when reported data becomes available.
  - With lower overall forecasted traffic in the near term and changes in revenue not recognized leakage assumptions, overall Revenue Not Recognized (column 13) decreased by 13.4%, over the forecast horizon when comparing the January 2023 forecast to the April 2022 forecast.
- No changes were made to the underlying payment rates for first and second toll bills given the delay in unpaid toll bill recovery and lack of reported data. As a result, Unpaid Toll Revenue (column 14) decreased by a similar 0.2% as the toll transactions and gross toll revenue potential when comparing the January 2023 forecast with the April 2022 forecast.
- Recaptured Toll Revenue at the *Good To Go!* Rate (column 15) is assumed to decrease slightly over the forecast horizon, primarily due to fewer unpaid trips assumed to reach NOCP in FY 2023 and FY 2024 due to the lags in unpaid toll bill recovery escalation. Recaptured revenue is 38% lower during those two years, and 1.1% lower over the full forecast horizon, when comparing the January 2023 forecast with the April 2023 forecast.
- Adjusted Gross Toll Revenue Collected (column 16) increased by 0.4% over FYs 2023-32 compared with a 0.8% decrease in Gross Toll Revenue Potential, with full forecast horizon increases of 0.3% and decreases of 0.2% for the two revenue measures, respectively.
- Revisions in Adjusted Gross Toll Revenue and Fees (column 21) between the January 2023 forecast and April 2022 forecast result in a 0.4% higher values over the forecast horizon, slightly more than the 0.3% increase noted for adjusted gross toll revenue potential.
  - Higher predicted fund balances contribute to higher interest earnings, and thus, upward revisions to the Miscellaneous Pledged Revenues forecast over the forecast horizon (column 17). The higher fund balances are directly attributed to higher than anticipated net toll revenue contributions to the SR 520 Account since the prior April 2022 forecast estimates. Note that annual interest earnings beyond FY 2032 are capped at their FY 2032 level, as a conservative approach to account for uncertainty in future years interest rates and account balances.
  - Transponder Sales Revenue (column 18) decreases by 0.5% over the forecast horizon due to lower transponder sales assumptions based on reported information through the first half of FY 2023 and a slightly smaller share of overall transponder revenues allocated to SR 520 due to a slightly reduced share of projected systemwide transactions.

- Pay By Mail rebilling fees (column 19) and toll revenue recovered from delinquent Pay By Mail transactions (column 20) recovered at the Pay By Mail rate in the Civil Penalty adjudication process decrease over the full forecast horizon by 1.3% and 1.8%, respectively, primarily in the near term due to delays in toll bill escalation and lower anticipated collection rates on delayed toll bills issued.
  - Similar to Recaptured Toll Revenue, no further collection efforts beyond the mailing of the first toll bill are assumed through Q1 2023, with a transition beginning in late FY 2023 toward the return to full toll bill revenue collection procedures and assumptions in FY 2024.
- Adjusted Gross Toll Revenue and Fees decreased by 0.4% over FY 2023-32, consistent with the 0.4% decrease for Adjusted Gross Toll Revenue Collected. Over the full forecast horizon, the two revenue measures are up 0.4% and up 0.3%, respectively when comparing the January 2023 forecast to the April 2022 forecast.

### Operating and Maintenance Costs

- Compared with the April 2022 forecast, the January 2023 Net Toll Revenue forecast (column 30) is higher by 2.4% over the forecast horizon, a larger percentage increase than the 0.4% for Adjusted Gross Toll Revenue and Fees (column 21). The improvement in net revenue is largely a result of cost projections that are lower overall, specifically vendor costs and facility operations and maintenance costs. The following summarizes the primary revisions in the cost factors in the gross-to-net revenue process.
  - Changes in total annual Credit Card Fees (column 22) track closely with gross toll revenue collected, with both factors increasing by 0.3% over the forecast horizon when comparing the January 2023 forecast with the April 2022 forecast. The January 2023 forecast does not assume any changes to the existing 2.8% credit card fee rate and 1.02 bank refund factor.
  - Similar to Transponder Sales Revenue (column 18), Transponder Purchase and Distribution Costs (column 23) decreased relative to April 2022 with lower sales volumes and slightly lower assumed share of total costs allocated to SR 520 due to its revised, lower share of systemwide toll transactions.
  - State Operations and Consultant Costs (column 24) are lower over the forecast period by 1.2% compared to the April 2022 forecast. Lower costs are attributed to a combination of fewer projected transactions on SR 520 and higher projected transactions on other facilities, leading to a decline in SR 520's share of total costs, as well as lower wage increases than projected in the prior forecast, and a refinement of full-time equivalent staff requirements to support toll operations. These lower costs are partially offset by higher costs attributed to transfer payments to the Washington State Patrol (WSP) and Washington State Transportation Commission (WSTC), which were also extended through the forecast horizon in this forecast update.
  - Roadway Toll System (RTS) costs (column 25) are unchanged between the January 2023 and the prior April 2022 forecasts.
  - Customer Service Center (CSC) operations vendor costs (column 26) are 28% lower over the forecast horizon while Back Office System (BOS) software vendor operating costs (Column 27) are 18% higher.

- The January 2023 CSC operations vendor costs are lower over the forecast period as a result of a realignment of projected costs with actual vendor cost experience through the first half of FY 2023. Higher projected toll trips on other facilities in comparison to SR 520, combined with inclusion of a partial adjustment to non-revenue trips for purposes of cost allocation starting in FY 2024, reduces the percentage share of fixed systemwide costs allocated to SR 520.
- The January 2023 BOS costs are higher over the forecast horizon due to upward revisions in the vendor costs to align with recent trends in the general inflation of materials and labor, which more than offset reductions as a result of a lower share of these costs allocated to SR 520
- Routine Facility O&M costs (column 28) were updated by WSDOT staff and show a 22.9% forecast period decrease in the January 2023 forecast compared with the April 2022 forecast. Prior estimates were based on estimated unit quantities and pricing, whereas the updated 2023 projections are informed by actual maintenance cost experience, roadway conditions, and revised unit cost rates based on recent price escalation.
- Bridge insurance premiums (column 29) were revised upward by 28% in the January 2023 forecast. The higher premium projections are based on higher actual expenses for FY 2023 and an assumed annual growth of 2.5% per year, which is higher (especially in the outer years) than the previous growth rate assumption tied to the growth rate of gross toll revenues.
- Over the FY 2023-56 forecast horizon, the overall Net Toll Revenue (column 30) forecast increased by 2.4% compared with the April 2022 forecast, whereas Adjusted Gross Toll Revenues and Fees are 0.4% higher over the same period.

## Net Revenues

- As a result of changes to the traffic and gross toll revenue potential forecasts as well as revisions to the revenue adjustments and O&M costs, the January 2023 forecast for net toll revenues totals \$2.96 billion over the FY 2023-56 forecast horizon. While this is 0.5% (\$14.4 million) lower than the original September 2011 forecast, it is 2.4% (\$70.2 million) higher than the prior April 2022 forecast over the forecast horizon.

## Uses of Net Toll Revenues

- A portion of available net toll revenues are intended to be used to pay state and local sales tax deferred during construction of the replacement SR 520 bridge (column 31). The January 2023 forecast is a no-change forecast in comparison to April 2022, which maintains the total repayment of value of \$159.4 million and 10-year payment schedules and the delayed start year for repayment as FY 2042 based upon direction from the 2022 legislature.
- The January 2023 forecast for periodic CSC operations and BOS vendor re-procurement R&R costs (column 32) are slightly higher over the forecast horizon as a result of revisions in cost allocations based on updated toll transaction forecasts across the system. Similar to RTS O&M costs, RTS R&R costs are unchanged in the January 2023 forecast from the prior April 2022 forecast.
- Periodic facility R&R costs (column 33) were updated by WSDOT staff and increased by 8.9% over the forecast horizon relative to the prior April 2022 forecast. The increase is based on updated 2023 projections informed by revised unit cost rates that capture recent above normal cost escalation.

## Summary of Changes in Projected Net Revenue

Exhibit 4 below compares the forecast horizon totals for the January 2023 forecast, item by item, with the prior April 2022 forecast. Starting with gross toll revenue potential, the table lists the period totals for each revenue adjustment and expenditure deduction that collectively yield net toll revenue. Each component in the table includes its column number reference (#) in the January 2023 T&R table located in Appendix A as Exhibit 29. Negative values in parentheses refer to costs or revenue deductions, both of which have the effect of lowering net revenues.

**Exhibit 4: Net Revenue Component Comparison — January 2023 / April 2022 (FY 2023-56)**

Forecast Category (#) = T&R table column reference	April 2022 Forecast (\$ millions)	January 2023 Forecast (\$ millions)	Variance (\$ millions)	Variance (%)*
<b>Gross Toll Revenue Potential (11)</b>	<b>4,258.2</b>	<b>4,249.7</b>	<b>(8.5)</b>	<b>-0.2%</b>
Toll Payment Discounts and Fees (12)	82.9	84.1	1.2	+1.4%
Revenue Not Recognized (13)	(146.0)	(126.4)	19.6	-13.4%
Unpaid Toll Revenue (14)	(153.6)	(153.3)	0.3	-0.2%
Recaptured Tolls at <i>Good To Go!</i> Rates (15)	21.6	21.4	(0.2)	-1.1%
Miscellaneous Pledged Revenues (17)	54.7	59.8	5.1	+9.4%
Transponder Sales Revenue (18)	47.6	47.3	(0.2)	-0.5%
Pay By Mail Rebilling Fees (19)	53.6	52.9	(0.7)	-1.3%
Tolls Recovered at Pay By Mail Rates (20)	29.4	28.9	(0.5)	-1.8%
<b>Subtotal: Revenue Adjustments</b>	<b>(9.8)</b>	<b>14.7</b>	<b>24.5</b>	<b>-250.0%</b>
Credit Card Fees (22)	(107.4)	(107.7)	(0.3)	+0.3%
Toll Collection O&M	(797.2)	(693.9)	103.3	-13.0%
<i>Transponder Purchase &amp; Inventory Costs (23)</i>	<i>(47.0)</i>	<i>(46.6)</i>	<i>0.4</i>	<i>-0.9%</i>
<i>State and Consultant Operations Costs (24)</i>	<i>(291.1)</i>	<i>(287.7)</i>	<i>3.5</i>	<i>-1.2%</i>
<i>Roadway Toll Systems (RTS) O&amp;M Costs (25)</i>	<i>(40.5)</i>	<i>(40.5)</i>	<i>-</i>	<i>-</i>
<i>CSC Operations Vendor O&amp;M Costs (26)</i>	<i>(383.0)</i>	<i>(277.1)</i>	<i>105.9</i>	<i>-27.7%</i>
<i>BOS Software Vendor O&amp;M Costs (27)</i>	<i>(35.6)</i>	<i>(42.1)</i>	<i>(6.5)</i>	<i>+18.1%</i>
Routine Facility O&M Costs (28)	(154.1)	(118.9)	35.2	-22.9%
Bridge Insurance Premiums (29)	(296.7)	(380.8)	(84.0)	+28.3%
<b>Subtotal: O&amp;M Costs</b>	<b>(1,355.4)</b>	<b>(1,301.2)</b>	<b>54.2</b>	<b>-4.0%</b>
<b>Net Toll Revenue (30)</b>	<b>2,892.9</b>	<b>2,963.2</b>	<b>70.2</b>	<b>+2.4%</b>
Deferred Sales Tax (31)	(159.4)	(159.4)	-	-
Periodic Facility R&R (32)	(401.0)	(436.7)	(35.7)	+8.9%
Periodic Toll Equipment and CSC R&R (33)	(74.1)	(74.8)	(0.7)	+0.9%
<b>Total after Deferred Sales Tax and R&amp;R</b>	<b>2,258.3</b>	<b>2,292.3</b>	<b>33.9</b>	<b>+1.5%</b>

\* A positive dollar variance on negative forecast values represents a cost (loss) reduction, with the negative percentage (%) variance representing percentage reduction in the cost (loss). The percentage change going from a negative value to a positive value or vice versa doesn't compute, and is only shown as a "+" or "-" based on the sign of the variance.

Over the forecast horizon, the current net revenue projections — which are inclusive of the planned FY 2024 toll increase averaging 15% — are 2.4% higher than the previous forecast. Downstream uses of net toll revenues are nearly \$36.4 million higher, primarily due to the increase in forecasted periodic facility R&R and periodic toll equipment and CSC R&R costs. As a result, remaining net revenues after the identified uses in Exhibit 4 are 1.5% higher than the prior forecast.

## 2 | Traffic and Revenue Overview

### Toll Traffic and Gross Toll Revenue Potential

Annual toll traffic and gross toll revenue potential projections were prepared by Stantec based on the completed floating bridge and Eastside projects with six lanes (one HOV and two general purpose lanes in each direction) plus a phased schedule for constructing the Rest of the West, which would complete six lanes from the floating bridge through the Montlake interchange and west to I-5.

Stantec’s November 2019 forecasts did not consider the impacts to traffic and revenue related to the COVID-19 pandemic crisis; rather, they represented a scenario where the pandemic did not occur. Subsequent to this forecast being developed in November 2019 (Forecast 1), several factors have led to traffic and revenue forecast adjustments, including incorporating the anticipated long-term impacts of the pandemic in reducing commute trips (Forecast 2), and a planned increase to the toll schedule averaging 15% (Forecast 3). These changes are presented in Exhibit 5.

#### Exhibit 5: Stantec Traffic and Revenue Forecast Refinement



\* TRFC stands for Washington State Transportation Revenue Forecast Council

- Forecast 1 — the November 2019 Forecast — was finalized in April 2020 and is a *pro forma* forecast through the year 2056 that does not include the effects of the COVID-19 pandemic. This forecast is documented in the November 2019 T&R Report dated April 13, 2020.
- Forecast 2 was finalized in June 2021 and updated in April 2022 to incorporate the near-term and anticipated long-term effects of the pandemic on trip making and travel behavior, assuming the existing toll schedule. This analysis included revised travel demand modeling with reductions in future work-based trips on the transportation network estimating a new normal for the post-pandemic environment.
- Forecast 3 (June 2021 Forecast), prepared in June 2021, modified Forecast 2 to accommodate the now adopted new toll rate schedule that goes into effect on July 1, 2023 (FY 2024). The travel demand modeling tools were used to assess additional toll diversion by time of day as a function of the revised toll schedule.

The prior April 2022 and current January 2023 Forecasts maintain the same revised toll schedule as the June 2021 forecast (Forecast 3) while also incorporating revised socio economic and demographic (SED or land use) projections underlying the updated toll traffic and revenue forecasts which reflect the latest estimates on the COVID-19 pandemic recovery and long-term impacts on travel behavior.

The aforementioned new toll rate schedule for FY 2024 includes time-of-day tailored toll rate increases averaging 15%. The term “tailored” acknowledges different percentage increases by time of day and includes a minimal percentage increase in the morning and afternoon peak periods but expands those peak periods by one hour, makes no increase to the overnight tolls, and includes somewhat higher midday and

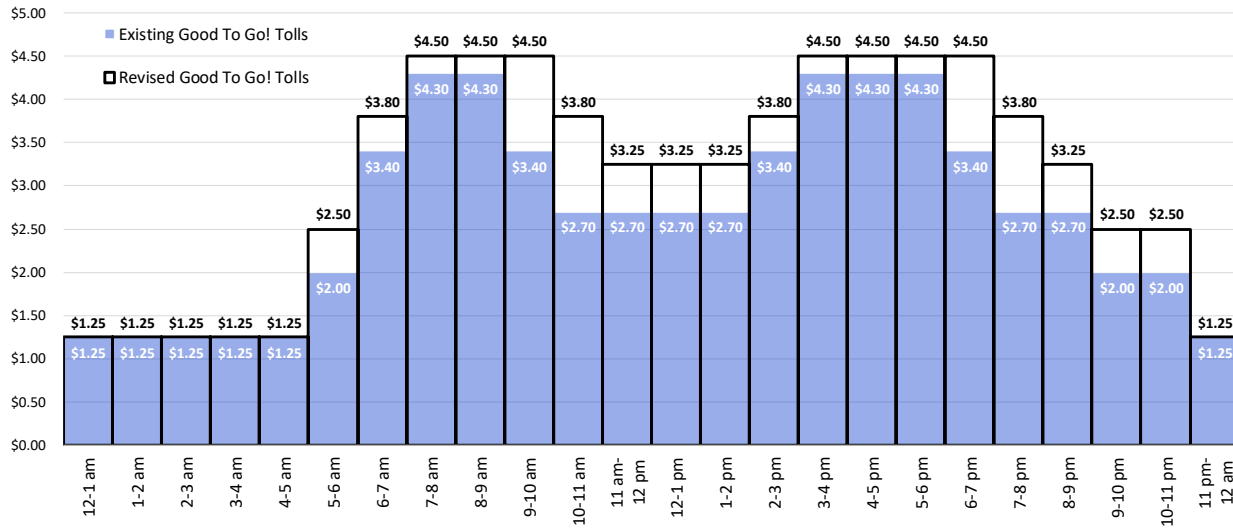


evening tolls. Additionally, the following rules that apply to the current toll rates will continue with the FY 2024 toll increases.

- The Pay By Mail toll rate maintains a \$2.00 increment to the *Good To Go!* pass rate per trip for vehicles with two axles, \$3.00 for three axles, \$4.00 for four axles, \$5.00 for five axles, and \$6.00 for six or more axles.
- The Pay by Plate fee remains at \$0.25 added to the *Good To Go!* toll rate to cover the additional costs of processing registered *Good To Go!* customers not using a transponder pass.
- Weekend rates remain in place for the following holidays occurring or observed on a weekday: New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

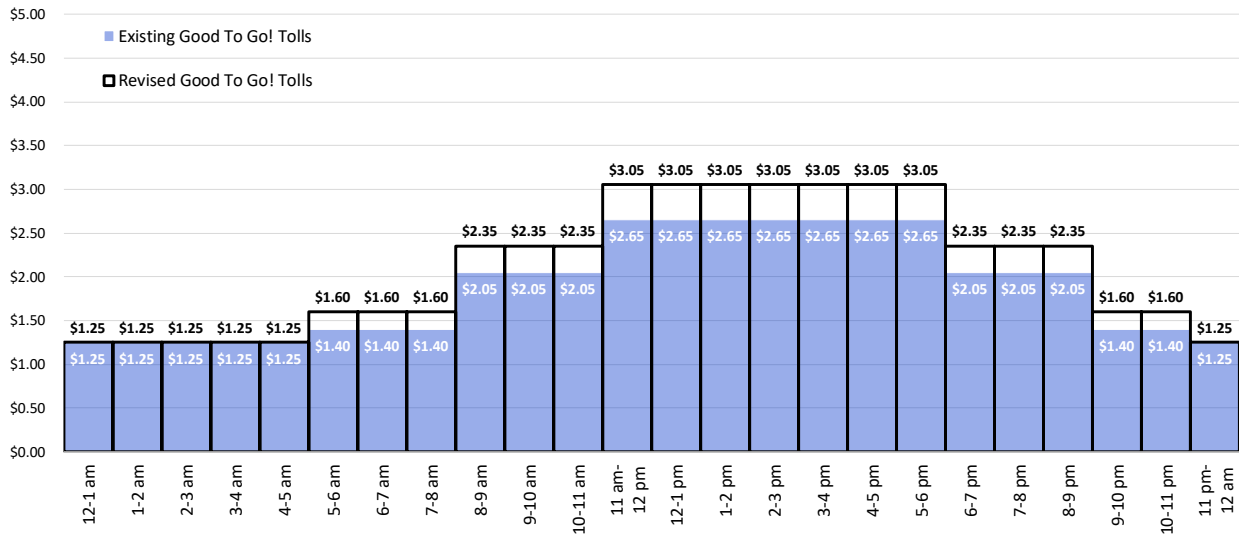
The current and forthcoming weekday toll rate schedules are presented below in Exhibit 6. The white spaces above the shaded bars show the difference between the existing and new weekday toll rates by each hour. The new tolls take effect on July 1, 2023 (FY 2024) and are assumed to remain unchanged thereafter through the end of the forecast horizon in FY 2056.

**Exhibit 6: Weekday Toll Rate Schedule Changes in FY 2024**



The current and forthcoming weekend toll rate schedules are presented below in Exhibit 7. As with the weekday schedule, the white spaces above the shaded bars show the difference between the existing and new weekend toll rates by each hour.

### Exhibit 7: Weekend Toll Rate Schedule Changes in FY 2024



The January 2023 annual traffic and gross toll revenue potential forecasts serve as inputs to the estimation of net toll revenues by impacting certain cost estimates, both directly in cost calculations and in the proportional allocation of system-wide costs to each state toll facility. Exhibit 8 illustrates Stantec’s current traffic forecast, which over the FY 2023-56 forecast horizon, is 0.2% lower than the April 2022 forecast.

### Exhibit 8: Stantec Toll Transaction Forecast Comparison (FYs 2023-56)

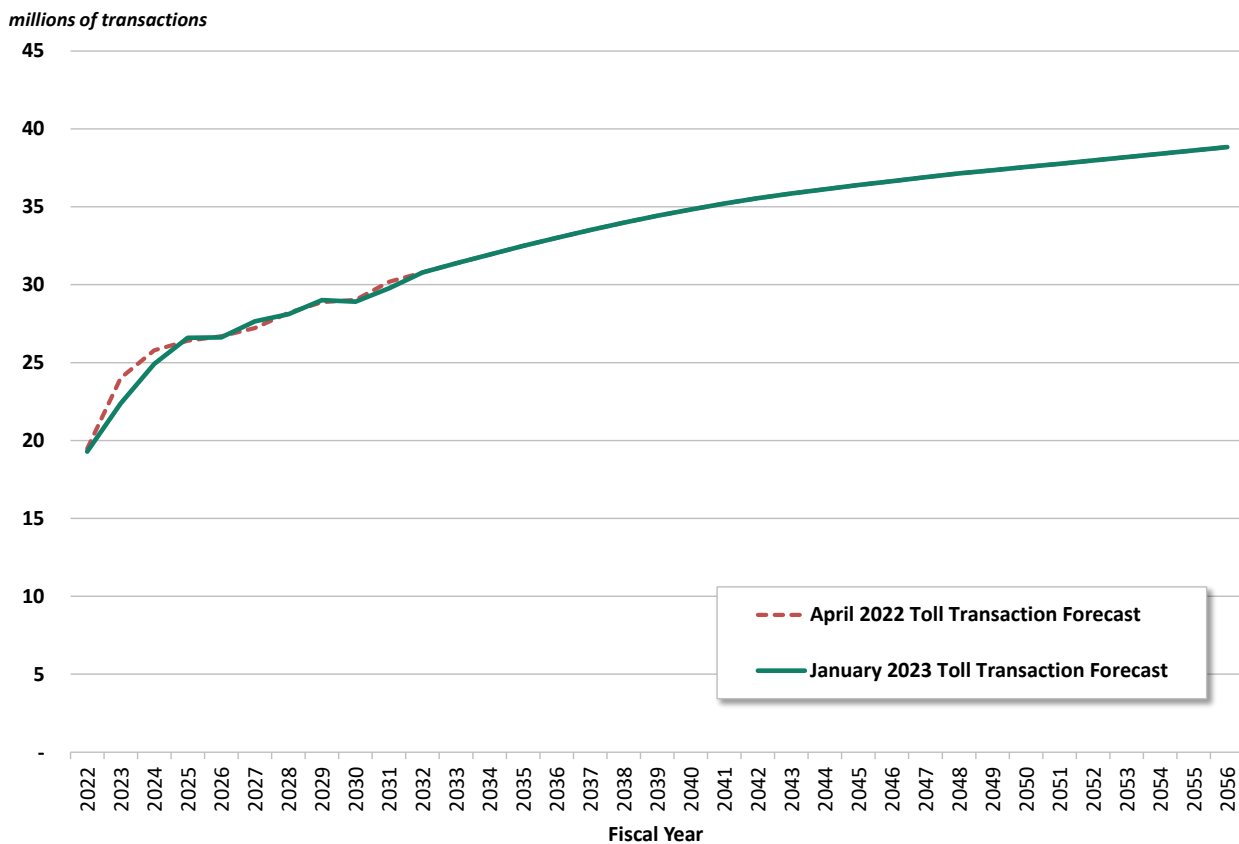
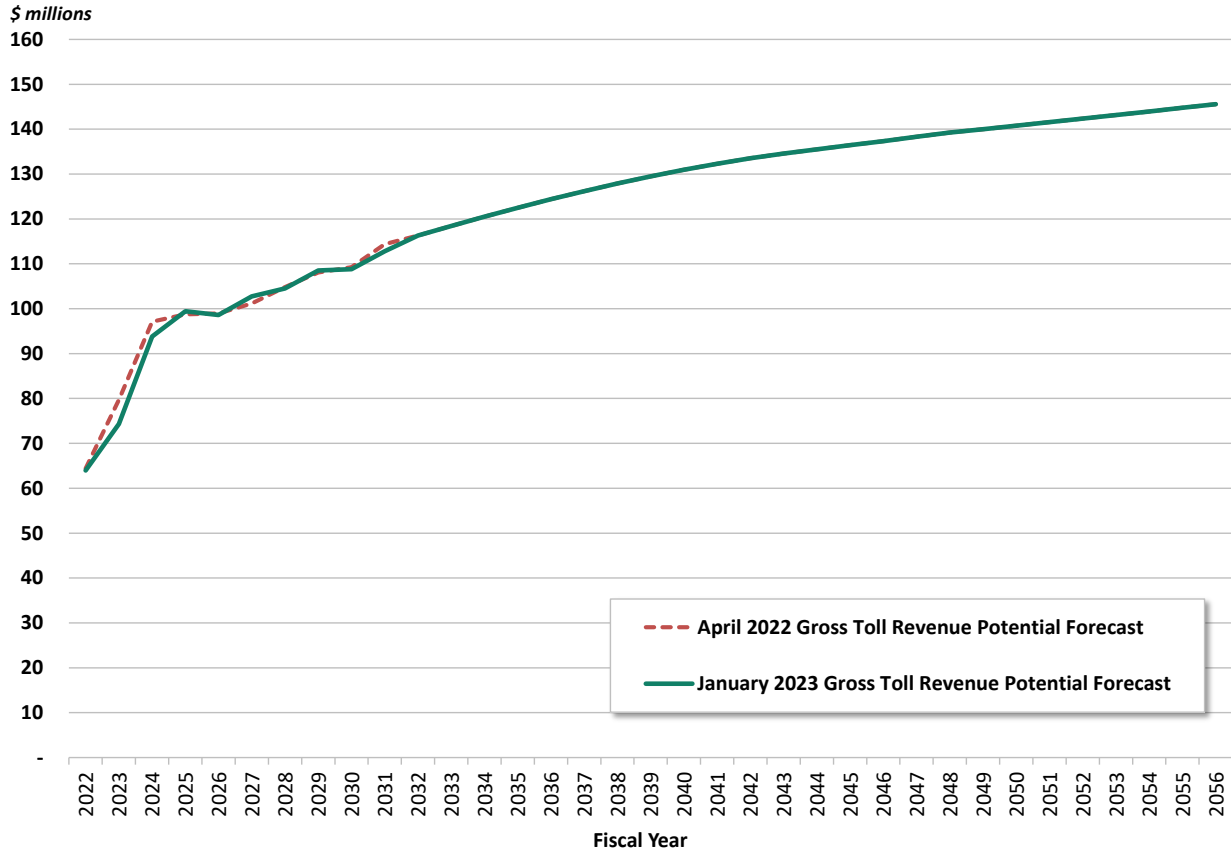


Exhibit 9 illustrates the corresponding gross toll revenue potential comparisons through FY 2056. Overall, the current January 2023 forecast is also 0.2% lower than the prior April 2022 forecast across the forecast horizon. Note that both the January 2023 and April 2022 forecasts include the adopted toll rate increases that will take place in FY 2024. The annual forecast detail for the January 2023 traffic and gross toll revenue potential by fiscal year can be found in columns 2-11 of the Exhibit 29 T&R table in Appendix A.

**Exhibit 9: Stantec Gross Toll Revenue Potential Forecast Comparison (FYs 2023-56)**



## Payment and Toll Transaction Types

The second key input received from Stantec is the output distribution of traffic (toll transactions) and revenue by toll payment method. This information is used to estimate the costs of collection that differ between user types, as described later in this report. Stantec prepares forecasts for two main categories of customers: prepaid *Good To Go!* registered accountholders, using either transponder passes or license plates (Pay By Plate), and unregistered (non-account) Pay By Mail customers.

### *Good To Go!* Account Transactions

When *Good To Go!* customers register for and set up a prepaid account, they have two options for how their vehicle may be identified for toll payment: they can purchase a pass (transponder) for their vehicle(s), and/or they can register for “Pay By Plate” in which a picture of the vehicle’s license plate is captured and linked to their account for payment, with an additional \$0.25 processing fee.

Previously, a *Good To Go!* account required a minimum opening deposit of \$30 and all accounts established on-line were automatically enrolled in auto-charge account replenishment. Replenishment could either be tied to a credit or debit card, or direct withdrawal from a checking or savings account. When an account reached a minimum balance threshold (e.g., \$6), the account would be replenished by a pre-selected amount of at least \$30, typically using automatic replenishment. Alternatively, a customer could contact the CSC and arrange for manual replenishment, though this is not common.

With the recent transition to new BOS and CSC vendors at the start of FY 2022, WSDOT gives customers the option of having a “zero balance account”. This option, referred to as “pay-as-you-go”, still requires an automatic method to collect toll payment, but rather than maintaining a prepaid balance, toll charges are allowed to accrue over a two-week period, at which point the costs for any identified toll trips are debited from the customer’s credit/debit card or bank account.

### Pay By Mail / Non-Account Transactions

Unregistered customers lacking a *Good To Go!* account will be billed for their toll using a photo tolling system and Pay By Mail billing process. Vehicles passing through the toll facility that are not registered to a *Good To Go!* account via a transponder pass or license plate number will trigger the Pay By Mail billing process. Using a photo image, the license plate number will be read and matched with vehicle registration data to obtain the owner’s name and mailing address from the Washington State Department of Licensing (DOL) or from a contracted vendor in the case of other states. A bill will then be mailed to the registered owner for the applicable Pay By Mail toll rate (plus any applicable late payment fees). Pay By Mail customers will have 80 days and two invoice cycles from the time of travel to pay their toll before the transaction is considered unpaid and becomes subject to a civil penalty. The Pay By Mail toll rates for two axle vehicles were initially \$1.50 higher than the applicable *Good To Go!* rates. The Washington State Transportation Commission gradually increased this increment, and in 2016, adopted Pay By Mail toll rates for two axle vehicles that are \$2.00 higher than the applicable *Good To Go!* rates. The Pay By Mail rates increase for vehicles with three or more axles, with the higher rate differential equal to \$1.00 per axle up to a maximum of \$6.00. The Pay By Mail toll rate differentials are assumed to remain unchanged thereafter.

Although the incidence of use is very low, it is possible for customers without a *Good To Go!* account to self-initiate toll payment before or after travel via opening a Short-Term Account prior to receiving a bill in the mail. This process effectively allows the user to establish a 14-day temporary account linked to a credit or debit card, which may be opened up to 10 days prior, or up to three days after, the first travel day.

Virtually all of the toll trips by customers without a *Good To Go!* account are projected to be processed as Pay By Mail transactions in which the customer responds to a toll bill received in the mail, with less than one percent initiating payment via a Short-Term Account. At the beginning of FY 2020, the \$0.50 discount for the Short-Term Account payment method was discontinued. In its place, a new option allows a customer to pre-register their vehicles' license plates to a *Good To Go!* account without requiring an initial deposit or maintaining a minimum account balance — the aforementioned pay-as-you-go account — which is now available with the recent transition to a new CSC vendor. As of January 2023 pay-as-you-go accounts represented 25% of total individual accounts. It is still unknown at this time what the incremental cost of collection or leakage rates will be for this option as unpaid toll bill escalated recovery — which includes *Good To Go!* accounts with invalid credit cards or insufficient funds that transition to Pay By Mail — has not yet commenced. Once sufficient data from actual experience is available, adjustments in projected payment method splits and associated leakage assumptions may be required.

### Projected Gross Toll Revenue and Transactions by Payment Type

Projections for the percentage shares of *Good To Go!* and non-account toll transactions provided in Stantec's forecast are shown for representative years in Exhibit 14 in the next section. Over time, it is estimated that the share of *Good To Go!* account customers will increase to an assumed ceiling of 90.5% in FY 2045, while the share of non-account (Pay By Mail) customers will decrease to 9.5% over the same period. Marketing efforts, the expansion of tolling to other WSDOT facilities, technology advancements, and customer incentives (the lower toll rate for account-based toll payments) are among the factors that will influence the market share distribution between account and non-account customers.

As part of the estimation of toll payment fees and discounts described later in this report, the Stantec estimated market shares by payment method include several sub-categories. *Good To Go!* transactions are subdivided into transponder pass transactions and Pay By Plate transactions, as shown in Exhibit 14 in the next section, with their percentage shares relative to total transactions.

## Gross to Net Toll Revenue

Toll transactions and gross toll revenue potential forecast values by payment type are provided by Stantec as the initial inputs used in the net revenue forecasts.

Exhibit 10 to the right illustrates the flow of funds or “waterfall” of revenue adjustments and expenditures that are projected to occur in transitioning from gross toll revenue potential to the net revenues available to support project financing.

The 2023 net toll revenue report is organized around this waterfall by presenting the revisions to assumptions and values for each “bucket.” Consistent with the toll traffic and gross revenue forecasts, the projections for the revenue adjustments and O&M expenditure items that yield net revenues were prepared for the FY 2023-56 forecast horizon.

A detailed T&R table provided as Exhibit 29 in Appendix A provides the annual toll transactions and the annual dollar projections for each of the waterfall elements listed in Exhibit 10, shown in numbered columns. As the sections of this report cover the net revenue components in the waterfall diagram, reference is made to annual values for each component in the Appendix A, Exhibit 29 T&R table by their column number.

Note that while the waterfall follows the structure of the T&R table, the subsequent uses of the net toll revenues in the bottom three buckets actually follow a separate flow of funds in the SR 520 financial plan that account for annual contributions to fund debt service and various reserve accounts.

**Exhibit 10: Net Revenue Waterfall**





### 3 | Net Toll Revenue Performance in Fiscal Years 2022-23

Exhibit 11 compares the actual performance in FY 2022, the tenth full fiscal year of operations, with the comparable projections from the previous April 2022 forecast. Exhibit 12 on page 21 provides a similar comparison of the preliminary performance in FY 2023 to that year's projections from the prior April 2022 forecast.

**Exhibit 11: FY 2022 Actual Revenue and April 2022 Forecast Comparison**

FY 2022 Category	Forecast vs. Actual Comparison for Net Revenue Items			
	(\$ millions)			% Variance from Forecast <sup>1</sup>
	April 2022 Forecast	Actual Values <sup>0</sup>	Variance from Forecast	
<b>Gross Toll Revenue Potential</b>	<b>64.4</b>	<b>64.0</b>	<b>(0.4)</b>	<b>-0.7%</b>
Toll Payment Discounts and Fees	1.3	1.3	(0.0)	-2.0%
Revenue Not Recognized	(2.8)	(1.9)	0.9	-31.3%
Unpaid Toll Revenue	(2.8)	(3.3)	(0.5)	+18.3%
Recaptured Toll Revenue at Good To Go! Rates	-	-	-	-
<b>Subtotal: Adjusted Gross Toll Revenue Collected</b>	<b>60.1</b>	<b>60.0</b>	<b>(0.1)</b>	<b>-0.2%</b>
Miscellaneous Pledged Revenues	0.7	1.6	0.9	114.6%
Transponder Sales Revenue	0.8	0.8	(0.0)	-2.5%
Pay By Mail Rebilling Fees & Miscellaneous Fees <sup>2</sup>	0.1	(0.2)	(0.3)	-395.9%
Recovered Toll Revenue	-	0.8	0.8	-
Credit Card Fees	(1.6)	(1.6)	(0.0)	+2.2%
Toll Collection O&M Costs <sup>3</sup>	(16.1)	(10.3)	5.9	-36.2%
Routine Facility O&M Costs	(2.9)	(1.8)	1.0	-35.7%
Bridge Insurance Premiums	(5.9)	(5.9)	(0.0)	+0.0%
<b>Net Toll Revenue</b>	<b>35.3</b>	<b>43.3</b>	<b>8.0</b>	<b>+22.8%</b>

<sup>0</sup> Actual values calculated from CSC Data, the Unbilled Transaction Report, and Monthly Toll Business Report.

<sup>1</sup> A positive dollar variance on negative forecast values represents a cost (loss) reduction, with the negative percentage (%) variance representing percentage reduction in the cost (loss), a "positive" outcome.

<sup>2</sup> Miscellaneous fees include NSF, account statement, and bank transaction fees, and are not forecasted.

<sup>3</sup> Toll Collection O&M costs includes Transponder Purchase and Inventory costs, RTS, CSC/BOS vendor costs, and State and Consultant Operations costs.

The following bullets summarize the key differences between actual FY 2022 performance and the April 2022 forecast.

- **Actual Toll transactions** were 1.0% lower while **gross toll revenue potential** was nearly 0.7% lower than Stantec's April 2022 forecast for FY 2022.
- **Adjusted gross toll revenue collected** was 0.2% below the April 2022 forecast for FY 2022. A 2.0% decrease in fees under **toll payment discounts and fees** was more than offset by a 31.3% decrease in **revenue not recognized** leakage. The April 2022 forecast assumed conservative licenses plate leakage rates to account for unanticipated issues with the vendor transition that did not materialize. The January 2023 forecast revises license plate leakage downward to more closely align with actual experience. The combination of higher than projected Pay By Mail trips

and continued delays in toll bill escalation resulted in **unpaid toll revenue** after 80 days and two invoices being higher than forecasted in April 2022.

- **Miscellaneous pledged revenues** were materially higher from the receipt of liquidated damages in the amount of \$837,000 and increased interest earnings, the latter due to a combination of higher interest rates and a larger underlying fund balance available to accrue interest earnings.
- **Credit card fees** were slightly higher than projected due to differences in the reported allocation of systemwide credit card fees to SR 520 compared with the facility-specific estimates used in the April 2022 forecast.
- **Toll collection O&M costs** were 36.2% lower than forecasted, primarily due to lower CSC and BOS vendor costs, in part due to continued delays in implementation of unpaid toll bill escalated recovery. State and contracted staff costs were also lower than anticipated, with full staffing levels assumed in the forecast whereas some positions remained vacant in FY 2022.
- **Routine facility O&M costs** were 35.7% lower than forecasted with less maintenance than was anticipated being conducted on the roadway, similar to prior years. The January 2023 forecast revised forecast assumptions for facility O&M based on historic trends in actual expenditures combined with budgeted near-term requirements by the Northwest maintenance division.
- **Net toll revenue** ended up 22.8% higher than projected in the April 2022 forecast due to a combination of higher miscellaneous revenues combined with lower O&M costs for toll collection and routine facility maintenance.

Preliminary gross-to-net toll revenue performance figures for the first seven months of FY 2023 are compared to the April 2022 projections in Exhibit 12. The values shown are preliminary as of 3/3/2022 and are subject to change until the financial close of FY 2023.

Given the preliminary status of these values, FY 2023 revenues and costs elsewhere throughout the rest of this report remain and are labeled as forecast values as of the 1/23/2023 date when the January 2023 forecast for the net toll revenue projections were finalized. The FY 2023 traffic and revenue forecast values include seven months of actual data through January 2023.

**Exhibit 12: Comparison of Preliminary FY 2023 Actual Revenue through January 2023 and April 2022 Forecast**

FY 2023 Category	Forecast vs. Actual Comparison for Net Revenue Items			
	(\$ millions)			% Variance from Forecast <sup>1</sup>
	April 2022 Forecast	Preliminary Actual Values <sup>0</sup>	Variance from Forecast	
<b>Gross Toll Revenue Potential</b>	<b>45.1</b>	<b>39.1</b>	<b>(5.9)</b>	<b>-13.2%</b>
Toll Payment Discounts and Fees	0.9	0.9	(0.0)	-5.0%
Revenue Not Recognized and Unpaid Toll Revenue	(3.4)	(3.9)	(0.5)	+13.5%
Recaptured Toll Revenue at Good To Go! Rates	0.1	-	(0.1)	-100.0%
<b>Subtotal: Adjusted Gross Toll Revenue Collected</b>	<b>42.7</b>	<b>36.1</b>	<b>(6.6)</b>	<b>-15.4%</b>
Miscellaneous Pledged Revenues	0.5	1.7	1.2	+244.5%
Transponder Sales Revenue	0.5	0.5	0.0	+0.6%
Pay By Mail Rebilling Fees & Miscellaneous Fees <sup>2</sup>	0.6	0.0	(0.6)	-98.1%
Recovered Toll Revenue	-	-	-	-
Credit Card Fees	(1.1)	(1.2)	(0.1)	+10.6%
Toll Collection O&M Costs <sup>3</sup>	(8.6)	(6.1)	2.4	-28.3%
Routine Facility O&M Costs	(1.7)	(1.3)	0.4	-25.1%
Bridge Insurance Premiums	(6.3)	(7.2)	(0.9)	+14.6%
<b>Net Toll Revenue</b>	<b>26.6</b>	<b>22.5</b>	<b>(4.2)</b>	<b>-15.7%</b>

<sup>0</sup> Values are preliminary through January 2023 as of 3/3/2023 and subject to change with the financial close of FY 2023.

<sup>1</sup> A positive dollar variance on negative forecast values represents a cost (loss) reduction, with the negative percentage (%) variance representing percentage reduction in the cost (loss), a "positive" outcome.

<sup>2</sup> Miscellaneous fees include NSF, account statement, and bank transaction fees, and are not forecasted.

<sup>3</sup> Toll Collection O&M costs includes Transponder Purchase and Inventory costs, RTS, CSC/BOS vendor costs, and State and Consultant Operations costs.

FY 2023 year to date actual toll transactions through January are 13.1% below the April 2022 forecast levels. Similarly, actual gross toll revenue potential and adjusted gross toll revenue collected are 13.2% and 15.4% below the April 2022 forecast values, respectively. The 15.7% net toll revenue variance from the prior forecast is aligned with the variance in adjusted gross toll revenues collected, but has larger positive and negative percentage variances in individual components, including significant positive factors in miscellaneous pledged revenue, toll collection O&M costs and routine facility O&M costs offset by negative factors in credit card fees, pay by mail rebilling fee revenues, and bridge insurance premiums. Pay By Mail rebilling fees and recaptured toll revenue are not anticipated to be available until the resumption of unpaid toll bill recovery efforts in Q2 2023.

Exhibit 13 compares the actual performance of the net revenue components in FY 2022 with the initial September 2011 forecast. While there have been many refinements to the inputs, assumptions, and underlying costs since the initial net revenue projections were prepared in September 2011 that have resulted in various puts and takes, the impacts of the COVID-19 pandemic on SR 520 traffic during FY 2022 (July 1, 2021 through June 30, 2022) overshadow all other factors that contribute to the differences in gross toll revenue potential, adjusted gross toll revenue collected, and net toll revenues.

**Exhibit 13: FY 2022 Actual Revenue and September 2011 Forecast Comparison**

FY 2022 Category	Forecast vs. Actual Comparison for Net Revenue Items			
	(\$ millions)			% Variance from Forecast <sup>1</sup>
	Sep 2011 Forecast	Actual Values <sup>0</sup>	Variance from Forecast	
<b>Gross Toll Revenue Potential</b>	<b>99.2</b>	<b>64.0</b>	<b>(35.2)</b>	<b>-35.5%</b>
Toll Payment Discounts and Fees	0.2	1.3	1.0	+442.0%
Revenue Not Recognized	(3.6)	(1.9)	1.7	-47.4%
Unpaid Toll Revenue	(1.5)	(3.3)	(1.8)	+123.9%
Recaptured Toll Revenue at Good To Go! Rates	-	-	-	-
<b>Subtotal: Adjusted Gross Toll Revenue Collected</b>	<b>94.3</b>	<b>60.0</b>	<b>(34.3)</b>	<b>-36.4%</b>
Miscellaneous Pledged Revenues	-	1.6	1.6	-
Transponder Sales Revenue	1.4	0.8	(0.6)	-44.3%
Pay By Mail Rebilling Fees & Miscellaneous Fees <sup>2</sup>	1.0	(0.2)	(1.3)	-122.6%
Recovered Toll Revenue	0.3	0.8	0.5	+144.8%
Credit Card Fees	(2.2)	(1.6)	0.6	-27.1%
Toll Collection O&M Costs <sup>3</sup>	(17.6)	(10.3)	7.3	-41.5%
Routine Facility O&M Costs	(3.2)	(1.8)	1.3	-42.3%
Bridge Insurance Premiums	(2.8)	(5.9)	(3.0)	+107.1%
<b>Net Toll Revenue before R&amp;R</b>	<b>71.2</b>	<b>43.3</b>	<b>(27.9)</b>	<b>-39.2%</b>

<sup>0</sup> Actual values calculated from CSC Data, the Unbilled Transaction Report, and Monthly Toll Business Report.

<sup>1</sup> A positive dollar variance on negative forecast values represents a cost (loss) reduction, with the negative percentage (%) variance representing percentage reduction in the cost (loss), a "positive" outcome.

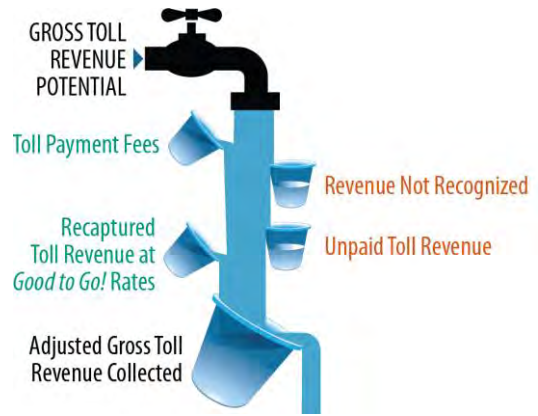
<sup>2</sup> Miscellaneous fees include NSF, account statement, and bank transaction fees, and are not forecasted.

<sup>3</sup> Toll Collection O&M costs includes Transponder Purchase and Inventory costs, RTS, CSC/BOS vendor costs, and State and Consultant Operations costs.

## 4 | Changes to Revenue Adjustments

Exhibit 4 on page 11 summarizes the January 2023 forecast period totals for each element of the gross-to-net revenue projections, the prior April 2022 forecast values, and the forecast variances. This chapter provides detail on the changes to the individual revenue adjustment items, and the following chapter covers the changes in the projections for operations and maintenance expenses.

Revenue adjustments for toll payment discounts and fees, revenue not recognized, unpaid toll revenue, and recaptured toll revenue at *Good To Go!* toll rates can be found in columns 12-15 of the Exhibit 29 T&R table in Appendix A.



These items have been updated to reflect actual data from FY 2012 through FY 2022 as well as a forecast for FY 2023 that includes actual data through September 2022, with changes made to key forecast assumptions noted in the following descriptions.

### Toll Payment Fees and Discounts (Column 12)

#### Pay By Plate Fee

WSDOT applies a \$0.25 fee per transaction for *Good To Go!* customers who choose to pay via a pre-registered license plate (Pay By Plate) rather than with a transponder pass. This fee is not assumed to escalate with inflation.

The January 2023 forecast for Pay By Plate fees was revised upward by \$1.2 million or 1.4% higher than the April 2022 forecast, primarily due to lower license plate leakage rates and higher collection of license plate transactions and a small increase in the total and percentage share of Pay By Plate transactions. Pay By Plate transactions are projected to grow from 27.6% in FY 2023 to a steady state of 30.1% by FY 2045 in the January 2023 forecast in comparison to 27.2% in FY 2023 to 30.1% by FY 2045 in the April 2022 forecast. Beyond FY 2045, the shares of Pay By Plate remained the same as 30.1% till FY 2056 at the end of the forecast horizon, in both January 2023 and April 2022 forecasts.

- Data through the end of FY 2022 shows that among *Good To Go!* account transactions, there continues to be a higher rate of growth in those using the Pay By Plate payment method than those using a transponder pass, with Pay By Plate use in FY 2022 comprising 30.3% of all *Good To Go!* transactions or 26.4% of total transactions compared with the April 2022 forecast values of 30.5% and 26.7%, respectively. There are several contributing factors to this trend.
  - The transition to new back-office vendors in July 2021 resulted in increased toll transaction data transparency regarding intended customer payment methods. This has led to the reclassification of a portion of the forecasted image-based transactions from the Pay By Mail payment method to *Good To Go!* Pay by Plate, with corresponding higher Pay By Plate fee revenues.

- The Customer Program for Resolution (CPR), discussed in more detail on page 29, allows for non-account (unregistered) customers to resolve a notice of civil penalty without payment of the penalty if they open a *Good To Go!* account or resolve insufficient funds with an existing account. Since these transactions are typically handled over the phone, transponder passes are not always sold with these new accounts and toll bills are resolved at the *Good To Go!* toll rate plus the Pay By Plate \$0.25 fee. The recent transition to new back-office vendors is likely to give customers additional opportunities to use CPR to reduce payment of late fees and civil penalty fees if they set up a customer account.
- With tolls on SR 520 having been in operation for more than ten years, many customers have likely acquired new vehicles (or new windshields on existing vehicles). In these cases, the \$0.25 incremental fee may not be enough of a financial deterrent for customers to purchase and register a new transponder for their new vehicle, or the attempted transfer of a sticker tag pass to a new vehicle rendered the tag non-functional, inadvertently changing the method of payment to Pay By Plate.
- The option of having a pay-as-you-go *Good To Go!* account starting in FY 2022 may also encourage more infrequent users to establish an account in the future without acquiring a transponder pass.
- Exhibit 14 shows that Stantec’s projections for the share of customers using Pay By Plate is expected to grow over the forecast period, moving from 27.6% in FY 2023 to 27.4% by FY 2025, and eventually to 30.1% of total transactions by FY 2045. Reported value in FY 2022 of 26.4% is higher than the FY 2021 value of 25.1% but similar as the prior forecast assumption, indicating that the shares of Pay By Plate trips continue to increase over the forecast horizon.
  - A comparable registered *Good To Go!* account share of transactions for FY 2022 in comparison to FY 2021 actual and FY 2023/24 forecast values during which there were more commuters/frequent users. Reported value in FY 2022 indicated the payment method share is now more closely aligned with pre-pandemic level.
- Continued demand for switchable Flex Pass transponders required to receive a carpool exemption on the I-405 Express Toll Lanes, combined with the commencement of tolling in the SR 99 Tunnel in November 2019 and the anticipated recovery in toll trips from the downturn due to pandemic are anticipated to increase overall pass usage in the region and potentially slow or reverse the projected decline in the overall *Good To Go!* share shown in Exhibit 14.

Pay By Plate fee revenue estimates are provided in column 12 of the Exhibit 29 T&R table provided in Appendix A.



**Exhibit 14: Annual Shares of Total Transactions by Payment method (Selected Fiscal Years)**

Fiscal Year	Registered <i>Good To Go!</i> Account Transactions						Unregistered (Non-Account) Pay By Mail Transactions <sup>2</sup>	
	Transponder (Pass)		Pay By Plate <sup>1</sup>		Total		April 2022 Forecast	January 2023 Forecast
	April 2022 Forecast	January 2023 Forecast	April 2022 Forecast	January 2023 Forecast	April 2022 Forecast	January 2023 Forecast		
2012		70.8% <sup>3</sup>		11.9% <sup>3</sup>		82.7% <sup>3</sup>		17.2% <sup>3</sup>
2013		68.9% <sup>3</sup>		14.8% <sup>3</sup>		83.7% <sup>3</sup>		16.3% <sup>3</sup>
2014		66.9% <sup>3</sup>		17.6% <sup>3</sup>		84.5% <sup>3</sup>		15.5% <sup>3</sup>
2015		63.6% <sup>3</sup>		20.1% <sup>3</sup>		83.7% <sup>3</sup>		16.2% <sup>3</sup>
2016		62.9% <sup>3</sup>		21.1% <sup>3</sup>		84.0% <sup>3</sup>		16.0% <sup>3</sup>
2017		62.9% <sup>3</sup>		21.6% <sup>3</sup>		84.5% <sup>3</sup>		15.5% <sup>3</sup>
2018		63.0% <sup>3</sup>		22.4% <sup>3</sup>		85.4% <sup>3</sup>		14.6% <sup>3</sup>
2019		62.5% <sup>3</sup>		25.1% <sup>3</sup>		87.6% <sup>3</sup>		12.4% <sup>3</sup>
2020		62.9% <sup>3</sup>		24.5% <sup>3</sup>		87.4% <sup>3</sup>		12.6% <sup>3</sup>
2021		60.4% <sup>3</sup>		25.1% <sup>3</sup>		85.5% <sup>3</sup>		14.5% <sup>3</sup>
2022	60.8%	60.5% <sup>3</sup>	26.7%	26.4% <sup>3</sup>	87.4%	86.9% <sup>3</sup>	12.6%	13.1% <sup>3</sup>
2023	60.4%	59.8%	27.2%	27.6%	87.5%	87.4%	12.5%	12.6%
2025	60.4%	60.4%	27.4%	27.4%	87.8%	87.8%	12.2%	12.2%
2030	60.4%	60.4%	28.1%	28.1%	88.5%	88.5%	11.5%	11.5%
2035	60.4%	60.4%	28.8%	28.8%	89.1%	89.1%	10.9%	10.9%
2040	60.4%	60.4%	29.4%	29.4%	89.8%	89.8%	10.2%	10.2%
2045	60.4%	60.4%	30.1%	30.1%	90.5%	90.5%	9.5%	9.5%
2050	60.4%	60.4%	30.1%	30.1%	90.5%	90.5%	9.5%	9.5%

<sup>1</sup> Pay By Plate percentage shares are modeled by Stantec starting with the Nov 2022 Forecast.  
<sup>2</sup> Values through FY 2019 include short term account transactions where customers initiate payment before receiving a bill; represents approximately 0.03% of total transactions.  
<sup>3</sup> Actual values for the *Good To Go!* / Non-Account Transaction split are calculated from CSC data analysis for calendar years 2012-22 and Toll Business Report data fiscal years 2017-2022. Actual values for the *Good To Go!* Transponder and Pay By Plate percentages are calculated using 16J-TRAINS Pay By Plate fee revenue divided by the \$0.25 fee to yield the number of transactions, adjusted for license plate leakage.

Short-Term Accounts

Non-account customers may set up a Short-Term Account (STA) by self-initiating payment provisions prior to or within 72 hours of traveling on SR 520. WSDOT previously offered a \$0.50 discount per transaction from the higher Pay By Mail toll rate to incentivize prompt payment, thereby reducing the number of Pay By Mail transactions and the delay in receiving revenue. However, this option was not widely used and in 2018, the WSTC decided to remove the \$0.50 STA discount while leaving this self-initiated payment option in place, effective for FY 2020. With the transition to the new CSC and BOS vendors, customers now have a new pay-as-you-go *Good To Go!* account payment option that charge tolls to a credit/debit card after travel rather than requiring the customer to use a prepaid account where maintaining a minimum balance is required. With no incremental or account maintenance fees associated with this new account type, recent enrollment data as of early February 2023 shows that pay-as-you-go accounts represent 96% of new individual account registrations and they are now the primary choice for new *Good To Go!* account registrations.

Other Fees and Discounts

In addition to the fees described above, WSDOT is authorized to charge miscellaneous customer fees that are not included in the net revenue projections herein, including inactive account and paper statement/reprinting fees.

Prior to transition to the new back-office system and customer service center vendors in July 2021, a \$5 closure fee for inactive accounts had not been collected. Concurrent with the transition during FY 2021, the new vendors reviewed and closed inactive accounts, administering the \$5 fees. Total fees collected in FY 2021 amounted to \$286,504 with the share allocated to SR 520 amounting to \$100,706 as of early August

2021. With the backlog of historically inactive accounts since the start of tolling now closed, administration fees from future closures are not anticipated to amount to much annually, and it has not yet been determined how frequently accounts will be reviewed and closed due to inactivity going forward.

Revenues from these items are not expected to be routine, do not have a material impact on future net revenues and are simply intended to offset administration and processing costs incurred by the state. As such these revenues are not currently included in the future year net toll revenue projections.

## Uncollectible Revenue (Columns 13 & 14)

Uncollectible revenue, or “gross leakage” before any overdue toll bill recovery, is divided into two T&R table categories: Revenue Not Recognized (unbillable) and Unpaid Toll Revenue. Revenue not recognized is un-pursuable revenue that occurs when a license plate is unreadable, or when the vehicle owner and address from a readable license plate cannot be identified. Unpaid Toll Revenue results from customer non-payment of toll bills after two invoices within 80 days of travel. Note that uncollectible revenue effectively gets reduced to a “net leakage” measure in the overall net revenue projections after accounting for the portion of unpaid toll revenue recaptured at *Good To Go!* toll rates or recovered at Pay By Mail rates after a notice of civil penalty is mailed to customers with toll bills more than 80 days past due (see columns 15 and 19 of Exhibit 29).

Forecasts for uncollectible revenue are based on a toll collection activity workflow model which is refined annually based upon the accumulation of new data. This model estimates the probability that a toll transaction will become uncollectible under a variety of scenarios and points in the toll transaction workflow process. Exhibit 30 in Appendix B illustrates this workflow and the points in the process where leakage occurs. Other refinements captured in the January 2023 and prior forecast resulted in higher rates of unidentified vehicle owners and addresses from readable plates and adjustments to the payment rates of first and second invoices. Refinements have been modified in the January 2023 forecast, including ramping down to industry standard rates of leakage due to unreadable license plates, but increasing the leakage due to invalid vehicle registrations or owner addresses, with the transition to the new CSC and BOS vendors, which was delayed from the original transition dates.

Revenue Not Recognized (Column 13)

### *Unreadable License Plates*

Notwithstanding recent improvements in license plate image readability, the January 2023 forecast modified the assumptions for the readable share of license plate images, which is a function of the in-lane cameras, interfacing issues between the RTS lane system vendor, the BOS software, and the integration with CSC operating procedures for reviewing license plate images. These assumptions include the following.

- The assumed shares of total image-based transactions (non-account Pay By Mail plus *Good To Go!* Pay By Plate) with readable license plates after manual review is 93% in FY 2021, 93.5% in FY 2022 following the transition to the new vendor, and 95.5% under steady state operations from FY 2023 onwards in the January 2023 forecast. The prior April 2022 forecast assumed 94% starting from FY 2023 till the end of the forecast horizon.
  - The 95.5% plate readability / 4.5% unreadable assumptions take into account that the new CSC and BOS vendor contracts include more specific requirements and performance

metrics to better align with industry best practices, which has shown to improve plate image review productivity and accuracy through January of FY 2023.

- Since March 2019, RTS hardware-related improvements have shown improved image readability, overcoming some of the sun glare and shadow issues associated with the east-west orientation of the roadway. However, the readability assumptions do not account for these RTS-related improvements. Readability assumptions may be revised upward in future forecasts pending additional experience.
- The short-term rates of unreadable plates were modified lower than the April 2022 forecast. The total dollar value for unreadable plate leakage over the forecast horizon is lower in the January 2023 forecast by about \$29.6 million or 25.2% due to a combination of the pandemic-induced lower forecast for overall toll trips in the near term combined with lower Pay By Mail transactions which are more frequently rejected in image review.

### ***Unidentified Owner/Address***

After a license plate is read, the system checks to see if the customer has a *Good To Go!* account, and if so, the account is debited for the toll plus an additional \$0.25 administrative fee as a Pay By Plate transaction. If the plate number is not associated with a *Good To Go!* account, then further processing is initiated to obtain a valid owner name and address for the vehicle from the Department of Licensing (DOL) for in-state plates. For out-of-state plates, the BOS vendor provides license plate lookup services to provide the vehicle's owner name and address. These lookup costs are embedded within the new BOS vendor contract costs starting with FY 2022.

Pay By Mail transactions for which the owner cannot be identified from the license plate are deemed as revenue not recognized and include Canadian and all other out of country license plates (British Columbia, from where most Canadian plates on SR 520 originate, stopped providing vehicle owner information as part of their response to the U.S. Patriot Act in 2001).

The rate of unidentified owners/addresses from readable license plates was previously assumed to be higher than typical industry experience as the result of challenges faced by the prior BOS/CSC vendor, where the tools to properly process license plates may have been lacking. This had led to transactions being left in an "in-process" holding pattern until they are ultimately dismissed with the passage of time. This January 2023 forecast returns to higher assumed near-term leakage due to delays in escalating recovery of unpaid toll bills and uncertainty of owner identification rates when recovery efforts resume, assumed in Q2 2023. The January 2023 forecast assumes 6% leakage compared to 4.5% in the April 2022 forecast.

- The unidentified owner rate is assumed to be maintained at 6 for FY 2023 and beyond, increasing from 4.5% assumed in the prior forecast. The 6.0% unidentified owner rate includes a contingency above industry norms to account for potential local issues related to the inability to identify owners from temporary licenses as well as from Canadian plates.
- The dollar value for unidentified owner leakage is \$10 million or 35.2% higher in the January 2023 forecast due to modified assumption of increased share of invalid registrations or owner addresses.
  - Toll transactions are 0.2% lower for the entire forecast horizon compared to the April 2022 forecast, and 0.9% lower over the first 10 forecast years (FYs 2023-32).

### ***Total Revenue Not Recognized***

Incorporating the lower January 2023 forecast traffic values used as the basis for leakage calculations, combined with the similar level of Pay By Mail transaction share, yields a decrease in forecast period revenue not recognized of \$19.6 million, a 13.4% decrease from the previous forecast.

The combined revenues not recognized from unreadable plates and from readable plates with unidentified owners are shown in column 13 of Exhibit 29 in Appendix A.

### Unpaid Toll Revenue (Column 14)

Unpaid toll revenue is a measure of the Pay By Mail revenues from toll transactions with readable license plates, identified owners, and thus toll bills mailed that are not collected within two billing cycles or 80 days. This measure excludes the benefits of any recovery efforts after 80 days, which are covered in subsequent sections.

The January 2023 forecast maintains payment rate assumptions used in the April 2022 forecast, with first toll bill payment rates of 58% and second toll bill payment rates of 39%, with a cumulative toll bill payment rate of 74.4%.

Despite no changes to the toll bill payment rates, the January 2023 forecast for unpaid toll revenue was revised down by \$0.3 million or 0.2% over the forecast horizon in comparison to the April 2022 forecast.

- The primary reason for the decrease in unpaid toll bill leakage in the January 2023 forecast is the 0.2% decrease in gross revenue potential expected to be generated from Pay By Mail customers over the forecast horizon.
  - The expected decrease in Pay By Mail revenue results in fewer transactions going through license plate image review and subsequent owner and address lookup, with fewer overall transactions requiring toll bills.
  - The BOS and CSC vendors transition resulted in increased transparency of toll transaction data regarding intended customer payment methods. This led to the reclassification of a portion of the forecasted image-based transactions from the Pay By Mail payment method to *Good To Go!* Pay by Plate (and transponder) payment methods, with corresponding lower revenue projected to come from the higher Pay By Mail toll rates.
- Due to implementation issues experienced with the transition to the new BOS vendor, no initially unpaid revenues requiring further collection efforts (second toll bill and/or sending an NOCP) have been collected since the vendor transition, and the FY 2023 forecast includes only partial revenues from the resumption of further collection and recovery efforts beginning in Q2 2023.
  - A full resumption to unpaid toll bill revenue collection and recovery procedures is assumed for FY 2024 onward.

Unpaid toll revenue is shown in column 14 of Exhibit 29 in Appendix A. The Toll Payment Activity Workflow and percentages are shown in Exhibit 30 in Appendix B.

## Overall Changes in Uncollectible Revenue (Columns 13 & 14)

Total projected gross leakage attributed to revenue not recognized and unpaid toll revenue is 0.5% (\$20.0 million) lower over the forecast horizon in the January 2023 forecast than in the April 2022 forecast.

For the 34-year period of forecast horizon, the January 2023 forecast assumes the overall rate of gross leakage on a transaction basis is projected to be 5.2%, with net leakage after recaptured and recovered tolls, projected at 4.2%. On a revenue basis, gross leakage is projected 7%, with net leakage at 5.4% after tolls recaptured or recovered via the NOCP process. Revenue leakage is higher than transaction leakage because the vast majority of leakage is linked to Pay By Mail transactions, which pay a \$2.00 higher toll rate compared with the *Good To Go!* transponder rate for two-axle vehicles (higher for three or more axle vehicles), in part, to offset potential leakage and the additional costs of collection for processing Pay By Mail transactions.

## Recaptured Toll Revenue at *Good To Go!* Rates (Column 15)

As with the previous forecast, the January 2023 forecast for revenue recovered in the notice of civil penalty (NOCP) process has been subdivided into two categories as a result of different accounting treatment in the SR 520 financial statements:

- “Recaptured Toll Revenue at *Good To Go!* Rates” (column 15); and
- “Toll Revenue Recovered at Pay By Mail Rates” (column 20), discussed in a later section.

In both cases, most customers who fail to pay their tolls during the regular two invoice / 80-day billing cycle will receive a notice of civil penalty (NOCP) equal to \$40 for each overdue toll owed. Specifically, by FY 2025, 87% of invoiced transactions unpaid after 80 days are assumed to be certified for a notice of civil penalty by a WSDOT toll enforcement officer, with the remaining 13% dismissed, the same as assumed in the April 2022 forecast and consistent with actual experience through the end of FY 2021, noting that NOCPs have not been issued since. The \$40 civil penalties are not considered “pledged revenue” in Master Resolution number 1117, and thus, are not captured within the net revenue forecast values.

A policy implemented at the beginning of FY 2016, and assumed to continue indefinitely in the January 2023 forecast, allows for more leniency in the handling of customer who are repeatedly failing to pay their toll bills. Referred to as the Customer Program for Resolution, this policy allows customers to open a new *Good To Go!* account by phone (or in person at the CSC) and resolve their unpaid tolls at the appropriate *Good To Go!* rate without payment of one or more civil penalties. Similarly, customers with existing *Good To Go!* accounts with an insufficient account balance for reason of an expired or changed credit card who end up receiving a NOCP are offered the opportunity to rectify their account and make payment, again without civil penalty.

- The toll revenue recovered through the CPR is assumed to stay in the SR 520 Toll and Fee Account (16J) and is reported as “Tolling Revenue” within the SR 520 financial statements.
- Recaptured toll revenue at *Good To Go!* rates is estimated to be 50% of transactions for which the customers received an NOCP in the mail and took some kind of action, consistent with the April 2022 forecast.
- Toll revenues recaptured at *Good To Go!* rates from the civil penalty process are assumed to be collected partially in the fiscal year of travel and partially in the following fiscal year to account

for an average six-month lag from the date of travel for toll bill processing, first and second invoice notification, NOCP notification, and subsequent resolution of payment.

Due to implementation issues experienced with the transition to the new back-office system vendor in FY 2022, partial revenues from further unpaid toll bill collection and recovery efforts are expected to be further delayed until the final months of FY 2023, with a return to full unpaid toll bill revenue collection procedures and assumptions for FY 2024. With a reduced rate of issuing NOCPs in FY 2023, the near-term forecast thorough FY 2032 for recaptured toll revenue is lower by 1.1% than the prior forecast.

Annual revenue projections for recaptured toll revenues are provided in column 15 of Exhibit 29 in Appendix A. The transaction workflow diagram shown in Exhibit 30 in Appendix B also illustrates the process by which toll bills go unpaid after two invoices and 80 days.

### Miscellaneous Pledged Revenues (Column 17)

Column 17 of the January 2023 forecast T&R table in Appendix A provides actual “Miscellaneous Pledged Revenues” received in FYs 2012-22 as well as forecast period projections (that began with the November 2015 forecast). Miscellaneous revenues pledged towards debt service, as defined in Master Resolution number 1117, include interest earnings on subaccount balances within the SR 520 Toll and Fee Account (16J); SR 520’s share of interest earned on the Toll Facilities Account (495) where prepaid *Good To Go!* customer funds are held, contract liquidated damages, sales of surplus property, and cash over and short.

Compared with the April 2022 forecast, miscellaneous pledged revenues are \$5.1 million or 9.4% higher over the forecast horizon in the current January 2023 forecast. The increase is primarily due to the higher assumed account balances serving as the basis for account interest revenue.

For the SR 520 Toll and Fee Account (16J), interest earning projections are calculated using an annual earnings interest rate of 0.61% in the January 2022 forecast, which is consistent with the rate applied in the April 2022 forecast. The interest rate percentage is applied to annual account balances, excluding miscellaneous revenues (which are primarily the interest earnings), estimated from the draft 2022 financial plan debt service payments, and updated by the current revenue and expenditure projections. The 0.61% interest rate assumed for the January 2023 forecast is lower than actual experience through February 2023 with interest rate yields in excess of 1.3%. In addition, annual interest earnings are conservatively constrained to their FY 2032 level of \$1.91 million in subsequent years even though account balances are projected to continually increase.

### Transponder Sales Revenue (Column 18)

WSDOT purchases, retains, and sells *Good To Go!* transponders directly to customers and through third-party retailers and walk-in centers. Transponder sales revenues are initially assumed to exceed total transponder purchase and inventory costs through FY 2032, after which point transponder costs, escalating at a higher rate than revenue, result in costs exceeding revenue. Beginning with FY 2033, it is assumed the retail and wholesale prices would be adjusted to align transponder pass sales with costs, such that the transponder distribution process has a net neutral impact on net revenue.





- The January forecast of transponder sales revenue is provided in column 18, upstream of the “Adjusted Gross Toll Revenue & Fees” subtotal in column 21, whereas transponder purchase and inventory costs are in column 23, “Transponder Purchase and Inventory Costs.”
- Starting with the November 2019 forecast, annual projections for systemwide transponder sales revenue in the near term were set equal to a weighted-average direct retail and wholesale price for transponder purchases multiplied by the estimated sales volume.
  - Flex-Pass transponder revenue per unit is based on the assumption of 88% sales through direct retail at \$15.00 per transponder and 12% sold at wholesale to third party distributors at \$12.00 per transponder.
  - Sticker tag revenue per transponder is based on the assumption of 93% sales through direct retail at \$5.00 per tag and 7% sold at wholesale at \$4.00 per tag.
  - License plate mounted transponders and motorcycle transponders are assumed to be sold through direct retail at \$12.00 and \$8.00 per transponder respectively.
  - Transponder retail prices are not assumed to increase until the point at which costs exceed revenue, occurring in FY 2033 for the January 2023 forecast.
- SR 520 is allocated a share of the systemwide transponder sales revenue (and costs) on a proportional transaction basis.
  - The January 2023 forecast allocates systemwide transponder revenue across five facilities through FY 2024, plus the I-405 Express Toll Lanes from Renton to Bellevue in FY 2025, Gateway SR 509 in FY 2026, Gateway SR 167 West of I-5 in FY 2027, and Gateway SR 167 East of I-5 in FY 2029. The Tacoma Narrows Bridge (TNB) is removed from the allocation after FY 2032 when tolls are assumed to end.
- The overall January 2023 forecast for transponder sales is \$0.24 million or 0.5% lower over the forecast horizon compared with the April 2022 forecast (see Exhibit 4). The reduction is primarily due to lower revenue allocation to SR 520 as a result of fewer SR 520 transactions and a lower SR 520 share of systemwide transactions by including more facilities into the system. Compared with the prior forecast, transponder sales revenues are lower in the near term (through FY 2024) due to softer demand. The rest of the forecast horizon assumes minimal changes from the April 2022 forecast, which are primarily attributed to changes in SR 520’s allocated shares of total systemwide revenues.
- Annual projections of transponder sales revenue are in column 18 of Exhibit 29 in Appendix A.

## **Pay By Mail Rebilling Fees (Column 19)**

Pay By Mail customers who do not pay their first invoice are subject to a rebilling fee of \$5.00 with the second invoice. The fee is applied on a per invoice basis when an invoice includes any toll transactions being billed for a second time. The \$5.00 fee amount does not escalate over time with inflation. Rebilling fee revenues are primarily driven by the forecasted volume of Pay By Mail transactions and assumed number of transactions per invoice, with secondary effects coming from potential changes in the rate of payment of first and second toll invoices.

The projections for Pay By Mail rebilling fees include the \$5.00 fee per unpaid first invoice that is successfully collected on the second invoice before 80 days have elapsed plus a portion of the overdue

rebilling fees on the unpaid second invoices that are later assumed to be recovered from the civil penalty adjudication process with an assumed six-month average lag.

Specific to FY 2023, only partial revenue associated with the resumption in Q2 2023 of further collection and recovery efforts from unpaid first toll bills (e.g., mailing a second toll bill with a rebilling fee and sending an NOCP) is assumed. Essentially, the resumption of unpaid toll bill recovery efforts was further delayed relative to the April 2022 forecast assumptions due to implementation issues experienced with the transition to the new back-office system vendor in late FY 2022. Full resumption of initially unpaid toll bill revenue collection and recovery procedures and assumptions is anticipated for FY 2024. With no second toll bills combined with NOCPs being issued at a reduced rate until Q2 2023, the near-term forecast for rebilling fees is materially lower.

- Compared to the April 2022 values, the January 2023 forecast for Pay By Mail transactions has been revised downward by 0.2% over the forecast horizon, decreasing the total number of potential unpaid first invoices for Pay By Mail.
- The January 2023 forecast applies the forecast period assumption of 2.10 toll transactions per mailed invoice, consistent with the April 2022 forecast. The average of 2.10 transactions per mailed invoice, while unchanged in the current forecast, is subject to revision based on actual experience with the new CSC vendor.
- The January 2023 forecast assumptions regarding first and second toll bill payment rates are consistent with the prior forecast, supported by actual data through FY 2022, as follows:
  - A 58% first toll invoice payment rate assumption means that 42% of first invoices will go unpaid and thus be subject to a rebilling fee on the second invoice.
  - 39% of the above unpaid first invoices are assumed to be paid on the second invoice inside of 80 days from the date of travel contributing to rebilling fee revenue.
  - The overall rate of payment for both invoices is assumed to be 74.4% in the current forecast, consistent with the April 2022 Forecast.
- Of the 25.6% of all toll invoices that go unpaid after 80 days, 87% are assumed to be certified for a notice of civil penalty by a WSDOT toll enforcement officer, with the remaining 13% dismissed, primarily due to incorrect customer or vehicle identification.
- The portion of NOCP transactions from which the toll is assumed to be recovered through the CPR or the normal civil penalty adjudication process and subsequent collection efforts are 45% in the January 2023 forecast, the same as assumed in the April 2022 forecast.
- For the 50% of such transactions for which tolls are recovered at the Pay By Mail rate, the \$5 rebilling fee is also assumed to be recovered 55% of the time, with the remaining 45% are dismissed.
  - For the remaining 50% of transactions for which the toll revenue is recaptured at the *Good To Go!* rate via the CPR program, no rebilling fees are assumed to be collected.

Annual projections of late payment fees are provided in column 19 of Exhibit 29 in Appendix A, and the toll bill payment process is illustrated in the transaction workflow diagram as Exhibit 30 in Appendix B.

## Toll Revenue Recovered at Pay By Mail Rates via NOCP (Column 20)

As noted earlier for “Recaptured Toll Revenue at Good To Go! Rates”, “Toll Revenue Recovered at Pay By Mail Rates” represents a subset of the category formerly referred to as “Recovered Toll Revenue”. This change was made starting in the November 2016 forecast as a result of different accounting treatments in the SR 520 financial statements.

In both cases, most customers who fail to pay their tolls during the regular two invoice / 80-day billing cycle will receive a notice of civil penalty (NOCP) equal to \$40 for each overdue toll owed. Specifically, 87% of overdue toll transactions are assumed to be certified for a notice of civil penalty by a WSDOT toll enforcement officer, with the remaining 13% dismissed.

Similar to rebilling fees and specific to FY 2023 through mid-Spring, no recovered toll revenue associated with further collection and recovery efforts beyond the initial toll bill (e.g., mailing a second toll bill and sending an NOCP) was included due to implementation issues experienced with the transition to the new back-office system vendor and start of toll bill escalation. Partial revenues from the resumption of unpaid toll bill collection and recovery efforts were included in FY 2023 beginning with Q2 2023, with a full resumption of unpaid toll bill revenue collection procedures assumed for FY 2024. With a reduced number of second toll bills and a reduced rate of NOCPs being issued in FY 2023, the near-term forecast for recovered toll revenue is materially lower.

Customers receiving a NOCP will have the opportunity to remit payment for tolls and fees or request a hearing to avoid having their motor vehicle registration withheld from renewal and/or have the amount due sent to collections. The January 2023 forecast assumes that 45% will take action, and that 55% will ignore the NOCP altogether, and will ultimately be subject to hold on the renewal of their vehicle registration. Revenue attributed to the \$40 NOCP fee is not considered pledged revenue under Master Resolution number 1117, and thus is not captured within the net revenue forecast values.

- For those customers that take action as a result of a NOCP, 50% are assumed to remit the toll due at the Pay By Mail rate, consistent with the April 2022 forecast.
  - 55% of those are assumed make a payment for the civil penalty as well.
  - 45% are assumed to only pay the toll and ignore the civil penalty due.
- Among the 45% above that take action, the forecast assumes that \$0.80 will be collected for every dollar owed, consistent with the April 2022 forecast. This assumption captures the possibility that an administrative law judge through the civil penalty adjudication process may reduce or forgive some of the civil penalties due.

Toll revenues and their associated civil penalties recovered in this manner flow into the Civil Penalty Account (17P). The toll portion of these revenues must be legislatively transferred to the SR 520 Toll Account (16J), which is assumed to occur in the subsequent biennium. Once transferred, the toll revenues are reported as an “Operating Transfer In” within the SR 520 financial statements.

## 5 | Changes to Operating and Maintenance Costs

This section documents the anticipated uses of Adjusted Gross Toll Revenues & Fees, which are those operating expenses that would be paid from toll revenues upstream of debt service and contributions to various reserve accounts, including those for deferred sales taxes and periodic repair and rehabilitation costs. As shown in the waterfall below, the SR 520 operational expenditures include: credit card fees, several categories of toll collection O&M costs, facility O&M costs, and bridge insurance premiums. Additional details regarding each of these deductions are provided below, with the annual projections provided in columns 22-29 of the T&R table, Exhibit 29 in Appendix A.

Some of the assumptions have been updated to reflect actual experience through the end of FY 2022 and contracted cost information pertaining to the new back-office vendors in FY 2023. Changes to these assumptions are noted in the descriptions of each cost category below. All costs are expressed in year of expenditure dollars (YOE \$) except where otherwise noted.

The WSDOT Toll Division provided near term, current 2021/23 biennium (FYs 2022-23) toll collection cost values based on the agency's Decision Package budget request, with adjustments for cost escalation and certain calculated cost values.

A description of each of cost item is provided below.



### Credit Card / Banking Fees (Column 22)

As a convenience to customers and to facilitate electronic toll collection, WSDOT accepts credit and debit (bank) cards for the payment of tolls as well as for the purchase of transponders. Credit card fees are provided in Exhibit 29, column 22. Bank card processing fees related to transponder sales are embedded in transponder purchase and inventory cost estimates in column 23 of Exhibit 29, and thus excluded from the separate calculation of bank card fees associated with the payment of tolls in column 22. For *Good To Go!* accounts, credit card fees have historically been tied to periodic account replenishment payments rather than individual toll transactions. However, with the new pay-as-you-go account option available to *Good To Go!* customers starting in FY 2022, customers are not required to maintain a prepaid account balance; rather the bank card registered to the account will be directly debited every two weeks based on account activity. This new pay-as-you-go account option will likely increase fixed transaction costs due to more frequent bank card transactions of lower dollar amounts, versus less frequent account replenishments at or above the \$30 minimum value.

Credit card transactions are processed by a third-party vendor which charges set fees for the service. These banking fees typically involve a fixed amount per transaction and a variable component as a percentage of the transaction amount. Since customers can use any Washington State toll facility with the same *Good To*

*Go!* account, actual total credit card receipts resulting in bank fees paid by the state are allocated back to the individual toll facilities based on their shares of systemwide toll revenues. In contrast, future bank card fees for SR 520 and the other state toll facilities are most accurately forecasted on the basis of each facility's revenue projections.

The assumed credit card fee rate applied to 92% of toll revenue collected via bank cards has remained the same as 2.80% from FY 2023 onwards for both this January 2023 update and prior April 2022 update.

These credit card fee rates are based on negotiations with credit card companies and also account for increased transaction costs associated with the new pay-as-you-go customer account options. Rates are based on actual values through December 2022 (FY 2023). In addition to the credit card fee rate, an adjustment factor of 1.02 (102 percent) is applied to the total fee amount to allow for fees paid on customer account balance refunds (credit transactions) when pre-paid accounts are closed; this assumption remains unchanged from previous forecasts but may be subject to revision once there is more actual data on the share of customers opting for pay-as-you-go versus pre-paid accounts.

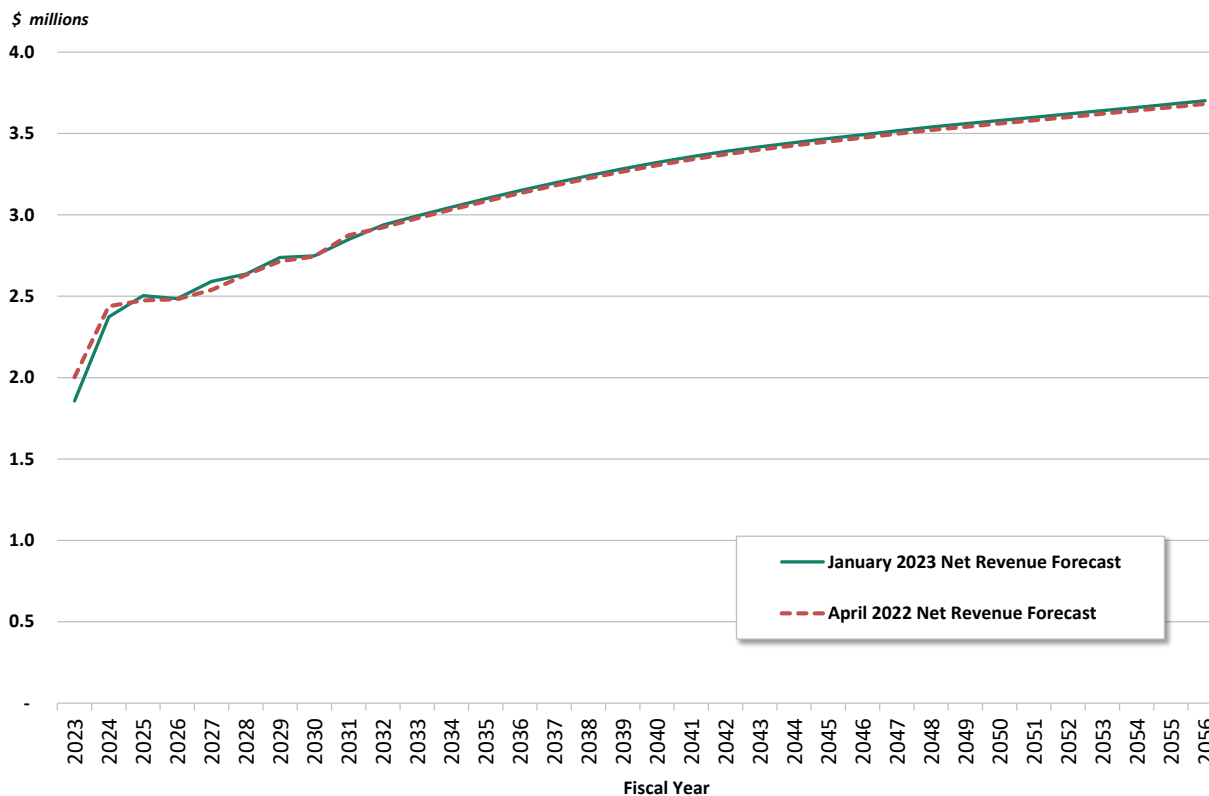
The credit card fees in Exhibit 29, column 22 are calculated from the total gross toll revenue potential projections (column 11), adjusted for the tolls actually received after factoring in *Good To Go!* Pay By Plate fees, total leakage, and rebilling fees recovered within 80 days (before the Civil Penalty process). Of the applicable revenue collected, 92% is assumed to be tied to a credit or debit card and thus subject to the bank card fee rate, slightly higher in the near-term than the prior forecast and confirmed by recent historical data through the middle of FY 2023. Similar to the prior forecast, the January 2023 forecast also assumes credit card fees associated with payments made in the civil penalty process will remain in the civil penalty account (17P) and are not transferred to the SR 520 Toll and Fee Account (16J); this includes the category for recaptured toll revenue at the *Good To Go!* rates via CPR. The assumption is based on actual practice to date in which credit card fees related to all payments in the civil penalty adjudication process were not transferred to the toll account.

WSDOT also accepts automated clearing house (ACH) payments directly from a customer bank account as an alternative means of account replenishment that does not carry the credit card fee. Pay By Mail customers also have the option of paying their invoices by check, or even cash in-person at one of the *Good To Go!* customer retail locations. These alternatives account for the approximately 8% of revenues collected that are not subject to bank card processing fees. However, with the transition to a new BOS vendor, and their use of a new external vendor providing data security, a security fee of \$0.12 per ACH transaction is now assumed, consistent with the security fee component on bank card transactions.

Credit card fees increased by \$0.32 million or 0.3% over the forecast horizon from the April 2022 to January 2023 forecasts. For FYs 2023-32, costs associated with credit card fees decreased by \$103,000 or 0.4% lower than estimated in the April 2022 forecast. Aside from the aforementioned near-term decrease, the primary reason for higher forecast period bank card processing costs are the higher adjusted gross toll revenue forecasts.

Exhibit 15 illustrates the projected credit card fees by fiscal year over the forecast horizon for the two forecasts, with the January 2023 amounts corresponding to column 22 of Exhibit 29 in Appendix A.

### Exhibit 15: Projected Credit Card Fees in YOE \$ (FYs 2023-56)



### Toll Collection Operations and Maintenance (Columns 23-27)

Toll collection O&M expenditures include all administrative and technical functions required for processing toll transactions and collecting revenue from customers. Beginning with the task of identifying a transaction, to recording the transaction, to ultimately collecting payment, the toll collection process requires involvement and coordination by various distinct parties across multiple functions:

- Transponder purchase, inventory, and sales, including the coordination with transponder pass manufacturers and third party (non-CSC) resellers;
- State and Consultant Operations costs (includes WSDOT Toll Division, WSDOT Accounting and Financial Services, and consultants);
- Roadway Toll System (RTS) vendor costs and associated WSDOT Toll Division staff support; and
- Customer Service Center (CSC) Operations and Back Office System (BOS) Software vendors

Costs associated with the operating functions noted above are depicted in columns 23-27 of Exhibit 29 in Appendix A. As previously mentioned, credit card fees associated with direct transponder sales to customers using a credit/debit bank card are included in the transponder purchase and inventory costs in column 23 rather than in column 22.



Specific details regarding the toll collection cost activities and changes in the cost assumptions included in the annual total toll O&M cost forecast values (columns 23-27 of Exhibit 29) are provided below by cost subcategory.

#### Transponder Purchase and Inventory Costs (Column 23)

WSDOT purchases, retains, and sells *Good To Go!* transponders directly to customers via online/mail orders, at CSC retail locations, and through third-party retailers. These costs are provided in column 23 of the Exhibit 29 T&R table as a component of overall toll collection costs. As noted in the previous chapter, these projected costs are fully offset by expected transponder sales revenues forecast provided in column 18 from FY 2033 forward, with revenues projected to slightly exceed costs prior to FY 2033.

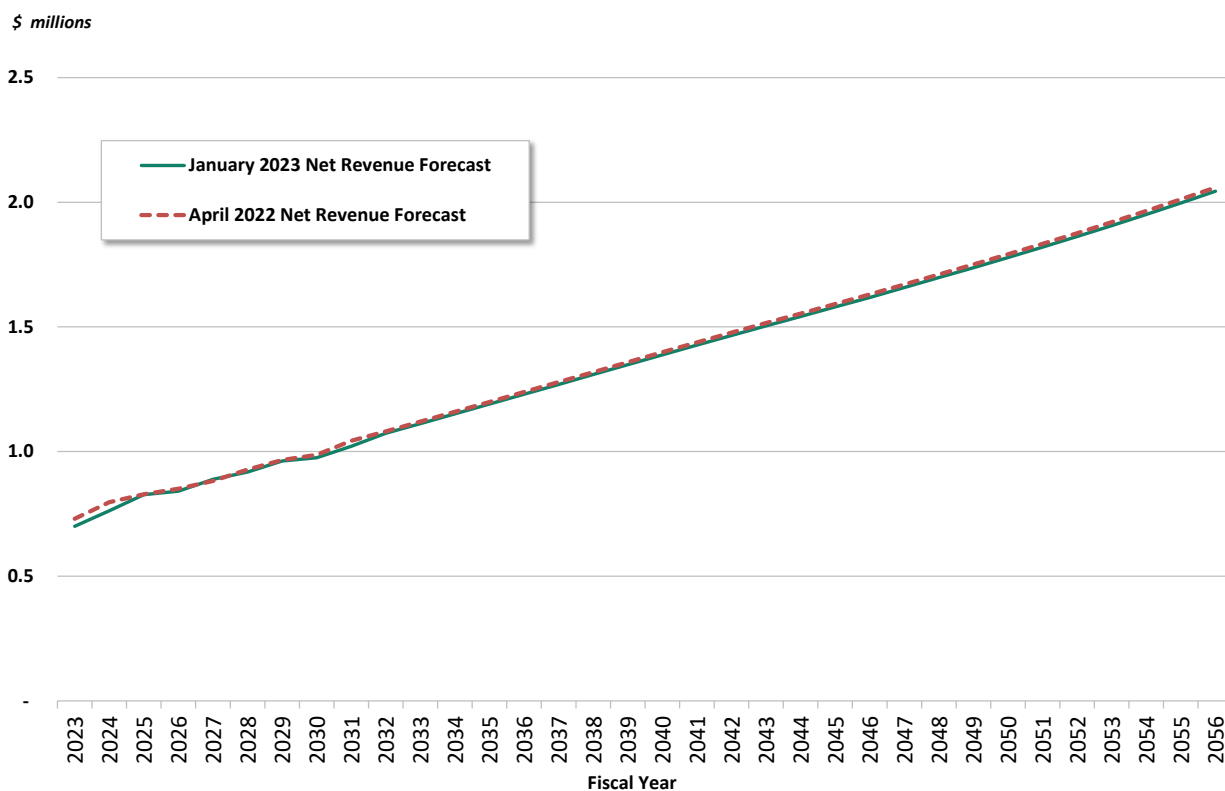
Transponder purchase, inventory and sales costs are determined by trends in the *Good To Go!* customer account base as well as the purchase of new or replacement transponders occurring with changes in the vehicle fleet and their owners as well as with the availability of new transponder technology.

Transponder costs, as well as associated revenues, are tallied at a system level and allocated to the individual facilities based on the number of *Good To Go!* account transponder toll transactions generated by each facility; this amount excludes toll exempt HOV carpool travel on the I-405 Express Toll Lanes between Bellevue and Lynnwood, which requires a Flex Pass transponder (declarable tag) that allow users to switch the transponder to HOV exemption status.

SR 520 was exempted from bearing any costs associated with the initial surge in transponders sold and/or distributed during the first-year ramp-up periods for the I-405 Express Toll Lanes in FY 2016 and SR 99 in FY 2019. The January 2023 forecast continues with the April 2022 forecast assumptions, reflecting a lower cost per unit as negotiated with transponder vendor Neology, Inc. starting at \$0.78 per sticker tag transponder and \$10.30 per Flex Pass transponder, with the full cost of \$2.22 per sticker tag transponder and \$15.56 per Flex Pass transponder when including inventory, packaging and mailing. The costs related to packaging, mailing, and inventory management are assumed to escalate by 2.5% per year, consistent with other cost escalation assumptions. The portion of the retail price that represents the unit cost from the manufacturer is assumed to increase by 1.0% per year. The declining real cost of transponder technology is the result of improvements in technology and reductions in production costs as the volume of production increases with the growth in toll facilities worldwide.

Transponder purchase, inventory and sales costs are projected to be \$0.4 million or 0.9% lower over the forecast horizon than in the April 2022 forecast. The primary driver for the decrease in costs, is a decrease in overall transponder sales volumes, systemwide for all facilities. The lower sales volumes over the forecast horizon are a result of lower *Good To Go!* transaction estimates in the latest forecasts due to downward revisions in the long-term impact of the COVID-19 pandemic on travel. SR 520's share of systemwide transponder transactions is also lower in the January 2023 forecast in comparison to the April 2022 forecast, particularly due to the inclusion of Gateway Program expressway projects (SR 509 and SR 167 east and west of I-5) to the system.

**Exhibit 16: Transponder Sales and Inventory Costs in YOY \$ (FYs 2023-56)**



State and Consultant Operations (WSDOT Toll Division / Accounting and Financial Services) (Column 24)

State and Consultant Operations costs include the activities of the WSDOT Toll Division, their consultants, and the WSDOT Accounting and Financial Services (AFS) Division. The Toll Division currently operates five toll facilities: the SR 520 Bridge; the SR 16 Tacoma Narrows Bridge (TNB); the SR 167 High Occupancy Toll (HOT) lanes; the I-405 Express Toll Lanes (ETLs) between Bellevue and Lynnwood and the SR 99 Tunnel. The Toll Division is responsible for general management, vendor oversight, marketing, information technology (IT), and printing and postage costs associated with Pay By Mail transactions, which are handled by the Washington Department of Enterprise Services (DES).

Staff positions and corresponding full-time equivalent (FTE) employees, base salaries and benefits, and overhead costs were adjusted to align with the WSDOT FY 2023 Draft Budget, which accounts for reduced staffing and re-alignment of salaries based on current staff and grades as well as open positions. Assumptions for staff benefits were revised from 27% of the base salary in the April 2022 forecast to approximately 42% in the January 2023 forecast, with percentages now based on actual pay grades in the revised model structure. Salary escalation rates were revised to be 5.0% in FY 2023, 3.5% in FY 2024, and 2.5% per year thereafter for the rest of forecast period in the current forecast, compared to a fixed rate of 2.5% applied annually in the prior April 2022 forecast. The escalation rates for state non-labor costs were revised to be 3.5% for FYs 2023-24, and then continuing at 2.5% thereafter in the current forecast, compared with a uniform 2.5% per year escalation rate assumed in the prior April 2022 forecast.

Normal salary and benefits costs associated with state full time equivalent (FTE) employees include staff working in finance and program management, government relations, CSC and BOS operations, RTS

operations, and WSDOT AFS group support. Near term budget period FTEs are based on actual experience and WSDOT Toll Division budgetary requests, using the percentage share of time each employee charges to the toll program, the total of which is then allocated based on each facility's share of total transactions.

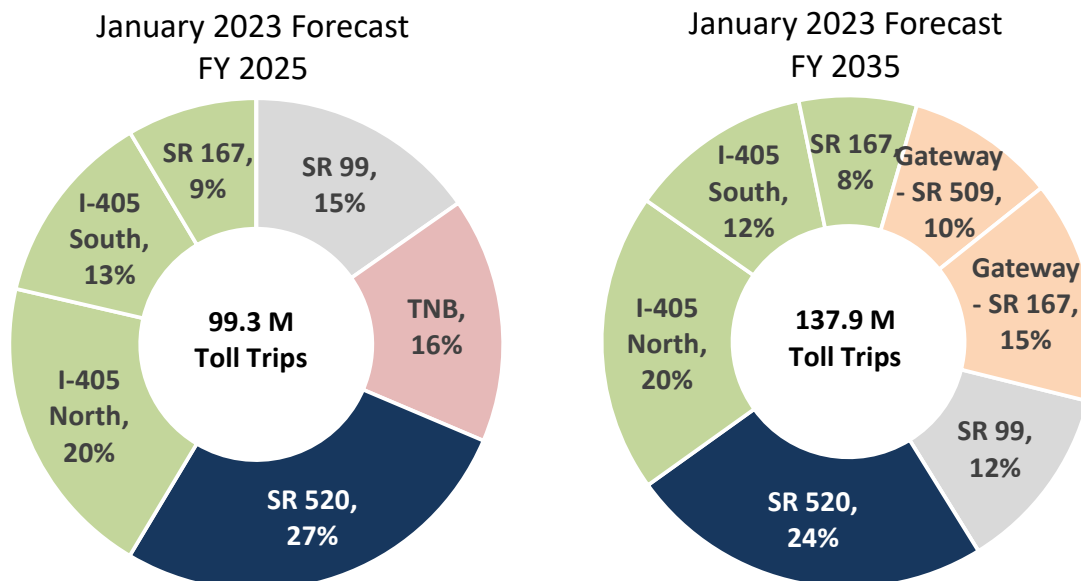
Longer-term forecast projections start with the FY 2023 budgeted staff levels with future changes in staffing levels primarily driven by the addition or removal of toll facilities from the system. Increased staffing levels are only assumed for facilities that have received legislative toll authorization, including the I-405 ETLs between Renton and Bellevue and the Gateway Program's SR 509 and SR 167 completion projects. A decrease in staffing is assumed for the planned removal of tolls from the Tacoma Narrows Bridge after FY 2032 when the project's debt and deferred sales taxes are repaid. The long-term forecast also assumes that state salaries and wages will escalate by 2.5% per year for general inflation.

As part of the above salaries and benefits, the forecast includes centralized toll operation, management, and administrative expenses (i.e., the Toll Division assistant secretary, executive assistant, and staff supporting strategic direction and planning, additional government relations, traffic and revenue analysis, toll rate setting, and payroll and human resource management). The capital programs for the toll facilities in development or under construction share the costs for the general management and administrative items. However, as these projects begin to transition to operations, the management and administration costs are assumed to be paid by toll revenues, with these systemwide costs allocated to each individual toll facility based on transaction levels.

Because these collective state operations services are provided on a systemwide basis, costs are allocated according to the projected share of total toll transactions for each facility, which varies slightly year to year due to differences in each facility's traffic forecasts. The cost allocations in the January 2023 forecast include the transactions for the existing five facilities — SR 520, Tacoma Narrows Bridge, I-405 Express Toll Lanes between Bellevue and Lynnwood, SR 167 HOT Lanes and the SR 99 Tunnel — plus the addition of the I-405 Express Toll Lanes between Renton and Bellevue in FY 2025 and the Gateway Program projects starting in FY 2026. The forecast allocates systemwide Toll Division staff and related costs by each facility's percentage share of the total number of toll transactions (toll trips) as well as a fractional percentage of non-revenue transactions starting in FY 2024.

Exhibit 17 shows the systemwide annual transaction forecasts and the respective cost allocation shares by toll facility in the January 2023 forecast for FY 2025 and FY 2035 as representative years. As seen in Exhibit 17, SR 520's share of systemwide costs decreases with the addition of the new toll facilities. With the full implementation of the Gateway program (by FY 2028), SR 520's share of systemwide costs decreases from 27% in FY 2025 to 24% in FY 2035 for the January 2023 forecast, despite that the FY 2035 allocations shares exclude the Tacoma Narrows Bridge. The January 2023 values compare to 32% in FY 2025 and 26% in FY 2035 in the April 2022 forecast, the decrease in share for the January 2023 a combination of lower transactions on SR 520 and lower downward revision to forecasted transactions on the other facilities. The current assumption is that the Tacoma Narrows Bridge will not be part of the toll network after FY 2032 when tolls are likely to be removed following the repayment of outstanding debt and deferred sales taxes.

**Exhibit 17: Transaction-based Cost Allocation Shares for WSDOT Toll Facilities**



Under the prior CSC operations vendor agreement, the state was responsible for reimbursing the (outgoing) CSC vendor for the actual printing and postage costs related to mailing Pay By Mail customer toll bills as well as for customers opting to receive *Good To Go!* account statements by mail. In 2016, the prior agreement was amended, transferring the role of printing and postage for Pay By Mail customer toll bills as well as providing customer opt-in *Good To Go!* account statements by mail to DES. The January 2023 forecast continues with this approach with DES responsible for the processing of Pay By Mail invoices. Printing and postage assumptions, which remain unchanged from the prior forecast, are as follows:

- The January 2023 forecast base assumptions capture actual experience in which the average cost to process and mail an invoice is assumed to be \$0.76 in 2020 dollars, inflated by 2.5% per year.
- The January 2023 forecast assumes an average of 2.10 transactions per invoice for SR 520, aligned with actual systemwide data.

In addition to printing and postage, license plate lookups are generally required for out-of-state license plates to acquire the vehicle owner’s name and address for mailing toll bills to non-account customers. The CSC vendor has a contract for this service with a separate third party vendor, based on fixed cost pricing per out-of-state plate inquiry. The April 2022 forecast assumed license plate lookup costs were embedded in the CSC vendor contract pricing. This assumption was revised in the January 2023 forecast with confirmation that the out-of-state plate look-up costs were in addition to the base vendor pricing. License plate lookup costs are estimated using a budgeted cost of \$1.05 per invoice starting in FY 2023, with escalation assumed at 2.5% per year. Total license plate lookup costs are forecasted to be approximately \$9.5 million over the forecast horizon.

The April 2022 forecast included inter-agency transfers, primarily to Washington State Patrol (WSP) and the Washington State Transportation Commission (WSTC), over the budget period. For the January 2023 forecast, these cost assumptions were extended through the full forecast horizon, with an assumed cost of \$433,000 for WSP and \$276,000 for WSTC per biennium, escalating at an assumed constant 2.5% per year.

The January 2023 forecast for state and consultant operations costs decreased by \$3.5 million (1.2 percent) over the forecast horizon compared to the April 2022 forecast. In the near-term from FYs 2023-32, State O&M costs were \$2.3 million (3.8%) lower in comparison to the April 2022 forecast. Within the state O&M cost category, fixed state costs decreased by \$31.8 million, or 19.8%, whereas printing, & postage costs increased slightly by \$0.2 million or 0.2%. New costs for license plate lookups of \$9.5 million, and inter-agency transfers to Washington State Patrol and the Washington State Transportation Commission of \$18.7 million were added to the cost projections.

The January 2023 forecast for State and Consultant Operations toll collection costs, including activities over-seen or performed by the Toll Division, are listed in Exhibit 18 with escalation assumptions in Exhibit 19.

**Exhibit 18: State Operations Assumptions in the January 2023 forecast**

Cost Item	Key Assumptions
Salaries & Wages <sup>1</sup>	SR 520's share includes the standard cost for 31.3 FTEs by job classification in FY 2022
Benefits	Assumed to be approximately 40.2% of Salaries & Wages in FY 2022 and 42.1% in FY 2023 onward, based on a staff calculation tool using current Washington State employee benefit
Technical Oversight	Toll consultants support CSC operations, RTS operations, and operational results analysis and reporting. Tolling consulting costs allocated to SR 520 are assumed to be over \$739k in FY 2022 escalating by 2.5% per year thereafter. An \$733k is assumed for forecasting related activities for FY 2022 with forecasting costs also escalating by 2.5% per year.
Office Supplies / Materials	Standard cost of \$2326 (FY 2022\$) per year, with a 2.5% escalation per annum
Rent	Fixed cost of \$145,700 per year (FY 2022\$) with 10% escalation every 5 years.
Printing and Postage	Cost of \$0.55 per mailing in FY 2020\$ (includes cost of \$0.068 per envelope, printing costs of \$0.084 per mailing, bulk postage rate of \$0.363 per mailing, and presort processing of \$0.043 per mailing) with a 2.5% escalation per annum. Consumable and other mailing costs account for mailings not associated with toll bills. Cost per mailing of \$0.76 (FY 2020\$) assumed with an additional cost of \$0.0044 (FY 2020\$) per mailing for consumables with a 2.5% escalation per annum.
Inter-Agency Transfers	An annual transfer of \$276K to the Transportation Commission and \$433K to Washington State Patrol in FY 2023, with a 2.5% escalation per annum.
Out of State License Plate Lookup Cost	License plate lookup cost per invoice is assumed to be \$1.05 in FY 2023 with 2.5% annual
Computers and Equipment	Standard cost of \$47,645 (FY 2022\$) per year, in addition to facility specific equipment costs as provided by WSDOT. The standard cost is escalated at 2.5% per annum.
Phone and Communications	Standard cost of \$6,969 (FY 2022\$) per year, with a 2.5% escalation per annum
Vehicles Operations	Standard cost of \$8,037 (FY 2022\$) per year, with a 2.5% escalation per annum

Note: FTE = full time equivalent employee

1 State salaries and benefits align with modification to salaries and benefits as stated in the January 2017 Governor’s Budget that correspond to an agreement between the Washington Federation of State Employees bargaining unit and the State of Washington covering General Government on September 13, 2016. The agreement calls for a 6% increase over the life of the two-year contract, comprising of one 2% increase in FY 2018 and two 2% increases in the beginning and middle of FY 2019. A further adjustment was made of 5.0% escalation in FY 2023 and 3.5% in FY 2024 based on announced increases.

**Exhibit 19: State Operations Escalation Assumptions in the January 2023 Forecast**

Cost Item	Escalation per Period	Period in Years
Salaries and Benefits		
FY 2023	5.0%	1
FY 2024	3.5%	1
FY 2025 onward	2.5%	1
Technical Oversight/Contracted Services	2.5%	1
Office Supplies / Mateirals	2.5%	1
Rent	10.0%	5
Printing/Postage/Office Supplies/Computers	2.5%	1
Inter-Agency Transfers	2.5%	1
Out of State License Plate Lookup Cost	2.5%	1
Telephone	2.5%	1
Vehicles + Operations + Parking	2.5%	1

State and consultant toll collection costs are included in column 24 of Exhibit 29 within Appendix A.

Roadway Toll Systems (Column 25)

Roadway Toll Systems (RTS) include all equipment and software required to identify a toll transaction and transmit its data to the customer service center for processing. RTS equipment includes transponder readers, cameras, and other communication devices that need regular maintenance for proper functioning.

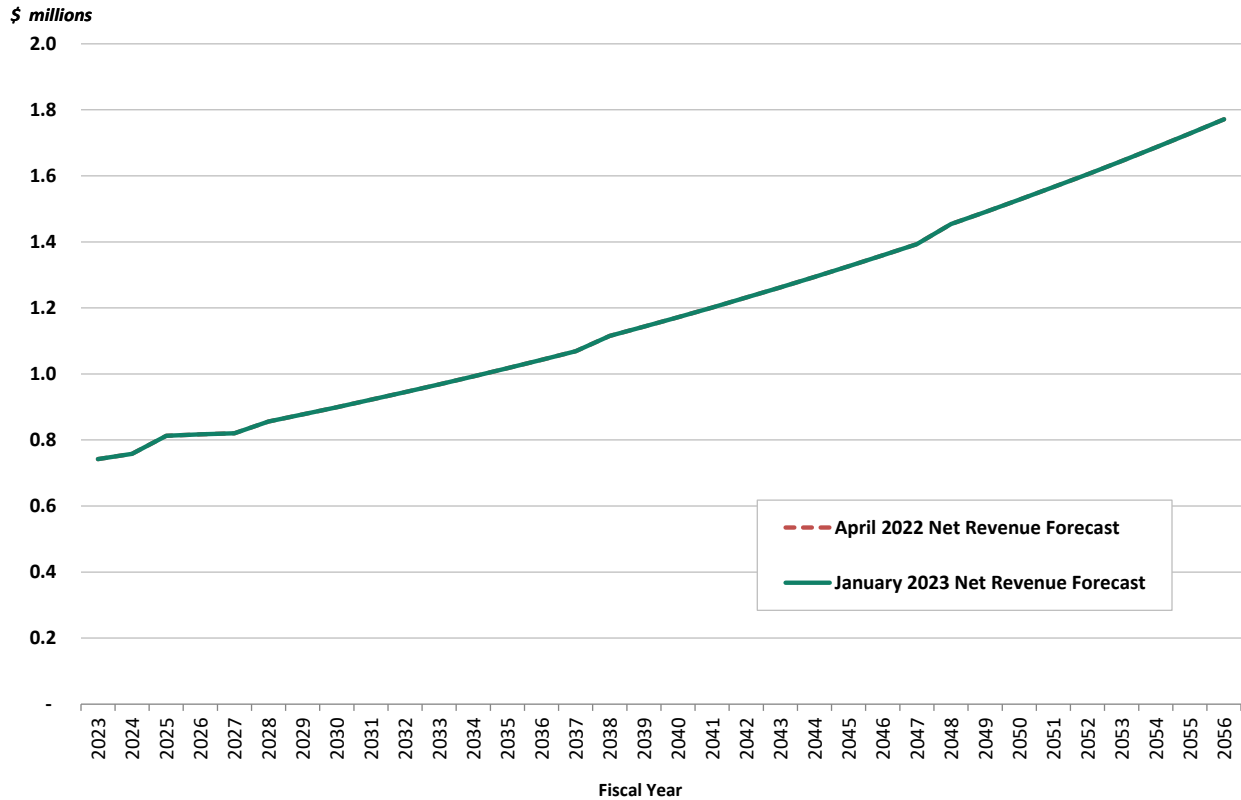
RTS operations and maintenance activities are performed by a private contractor, Kapsch (formerly Schneider Electric), in conjunction with WSDOT maintenance staff. The vendor contract specifies that Kapsch will provide ongoing maintenance of the toll collection equipment through the contract period. The 10-year systemwide RTS vendor contract for all facilities began in FY 2017 with the installation of the permanent toll collection system on SR 520. WSDOT will perform any necessary maintenance to equipment gantries or other ancillary roadside equipment. After the RTS systemwide vendor contract expires, the state will have the option to re-bid the contract or assume responsibility for all RTS maintenance functions (the forecast assumes RTS vendor contract is rebid). Examples of these duties include:

- Realigning / recalibrating cameras and transponder readers;
- Cleaning camera lenses;
- Maintaining equipment data connections; and
- Monitoring / auditing equipment performance.

RTS costs are facility-specific and fixed with respect to the volume of traffic. RTS O&M costs over the FYs 2023-56 forecast horizon were unchanged compared with the April 2022 forecast, as shown in Exhibit 20. The current January 2023 forecast values can be found in column 25 of the Exhibit 29 T&R table. Required periodic capital repair and replacement of RTS equipment is covered in a later section.



**Exhibit 20: Roadway Toll Systems O&M Costs in YOE \$ (FYs 2023-56)**



**Customer Service Center Operations and Back Office System Software (Columns 26 & 27)**

The Back Office System (BOS) software and Customer Service Center (CSC) operations vendors are responsible for processing and billing toll transactions, collecting toll revenue, maintaining customer accounts, interfacing with customers via telephone and at *Good To Go!* retail walk-in centers and providing software applications to enable these functions. The outgoing vendor was responsible for providing both the BOS and CSC functions. As of July 2021, WSDOT had fully transitioned to new, separate BOS software and CSC operations vendors. Noting that in FY 2023, collection and recovery efforts for unpaid toll bills, including mailing second toll bills with an accompanying \$5.00 rebilling fee and sending notices of civil penalty with their \$40 fee, have been partially administered due to delays in system acceptance and implementation. Full efforts will be in place by FY 2024. Expenditures for BOS and CSC vendor services are incurred on a systemwide basis, with the total costs allocated back to each facility based on the number of electronic (non-cash) toll transactions.

With WSDOT’s transition to separate BOS and CSC vendors, the new BOS software provides the full functionality of the outgoing system, plus addresses functional deficiencies identified by the State Auditor’s Office, key limitations with the outgoing system, and supports several key enhancements to program functionality, including the concept of a single customer account for both prepaid and pay-as-you-go payment provisions. In the future it will also provide for the option to integrate with Washington State Ferries (WSF) to allow *Good To Go!* passes to be utilized as a payment option for ferry fares, though WSF is not yet assumed to be part of the operations and does not currently contribute to periodic procurement or

annual O&M costs. The requirements for the new systems software contract include two distinct, yet tightly integrated components: the operational back-office, and the commercial back-office.

The CSC operations vendor is primarily responsible for the staff performing the customer service and back-office operations tasks. Operations tasks include call center operation, back-office processing, image review including out-of-state license plate lookups, toll bill printing and mailing, transponder inventory management, civil penalty adjudication processing, collection oversight, and retail front office services. In addition, WSDOT retains the option to evaluate what services may remain with the operator or brought in-house on a task-by-task basis in order to optimally leverage each group's areas of expertise (e.g., accounting).

One of the added benefits of separating the BOS vendor from the CSC vendor is the flexibility for WSDOT to keep the systems software in place longer than the CSC vendor if this operator does not meet pre-determined key performance indicators, yet the system meets and/or exceeds expectations and is dynamic enough to grow with additional toll facilities or other services. This flexibility also includes the ability for WSDOT to shorten the operations contract for a vendor who may underperform on customer service tasks as the contract is assumed to be six years with two optional two-year extensions. As a conservative approach, the forecast assumes procurement of a new vendor at the end of each six-year contract but allows an additional year for vendor transition, resulting in a seven-year effective contract period.

After the period of overlap between the previous vendor and the two new vendors in FY 2021, the cost estimates for FY 2023 reflect the second full fiscal year under the two new separate long-term contracts for BOS and CSC. The systemwide BOS vendor costs reflect the ETAN contract values and are allocated to SR 520 based on SR 520's share of the systemwide transactions. The April 2022 forecast assumed a 10-year BOS vendor contract term from FYs 2021-30. Following recent negotiations with WSDOT, the vendor contract was modified in the January 2023 forecast with a revised start date and will extend from FY 2022 through FY 2031. In addition, cost assumptions reflect revised negotiated contract costs including upward adjustments to account for recent increases in labor and material costs.

The SR 520 CSC costs up to FY 2023 are based on the estimated CSC budget values negotiated with the vendor. From FY 2024 onwards and for the rest of the operational term, the systemwide cost projections use estimated pass-through operations costs for the CSC vendor, based on a conservative, bottom-up, activity-based approach which evaluates all costs on a per unit cost and volume basis. The systemwide costs are comprised of transaction dependent and fixed costs (non-transaction dependent). Furthermore, the systemwide CSC costs are escalated to account for inflation over each fiscal year of the forecast horizon. Each year's forecasted value is then divided by the total number of forecasted electronic toll transactions to yield annual values for the average unit cost per transaction, which are then applied to the transaction forecast values for SR 520 by year to determine the SR 520 CSC O&M costs.

In the January 2023 update costs were adjusted based on actual experience and are now in alignment with the latest operational budgets developed by Shimmick. It is worth noting that once the new CSC vendor became fully operational in FY 2022, there was an identified need to increase salary cost assumptions to both attract and retain staff to meet CSC operational requirements. Based on initial discussions with the vendor a revised salary escalation rate of 5.0% is assumed in FY 2023 and 3.5% in FY 2024, before reverting back to the standard 2.5% assumed in every year of the prior April 2022 forecast.

Two financial accounts are maintained to keep the costs and revenues separate for the civil penalty process. Delinquent toll bills that are subsequently recovered via the adjudication process are deposited into the Civil Penalty Account (17P), are and typically transferred from there to the SR 520 Toll and Fee Revenue

(16J) Account through legislative authorization at the end of each fiscal year. The amount of time the CSC vendor spends supporting the two activities determines how the costs are allocated between the accounts.

The aforementioned Customer Program for Resolution (CPR) alternative payment option, implemented in mid-2015, allows customers who receive a notice of civil penalty but call or visit a customer service center to receive a waiver of the \$40 civil penalty fee, up to two times. When the CPR process is used to recapture toll revenue, the amount recaptured is automatically transferred into the SR 520 Toll and Fee Revenue Account, denoting the CSC vendor activities as toll collection related. The first customer-initiated request typically results in both fees and penalties being waved, the second request requires *Good To Go!* account holders to bring their account back to good standing and non-account holders to open a *Good To Go!* account. Further requests for civil penalty fees to be waved requires a hearing with an Administrative Law Judge. While helping to improve the rate of toll collection in the NOCP process, the waiver of \$40 fees payable has resulted in a noticeable decrease in civil penalty fee revenue.

For the overall forecast horizon (FYs 2023-56), the SR 520 total BOS and CSC O&M costs are \$99.5 million or about 23.8% lower than in the April 2022 forecast.

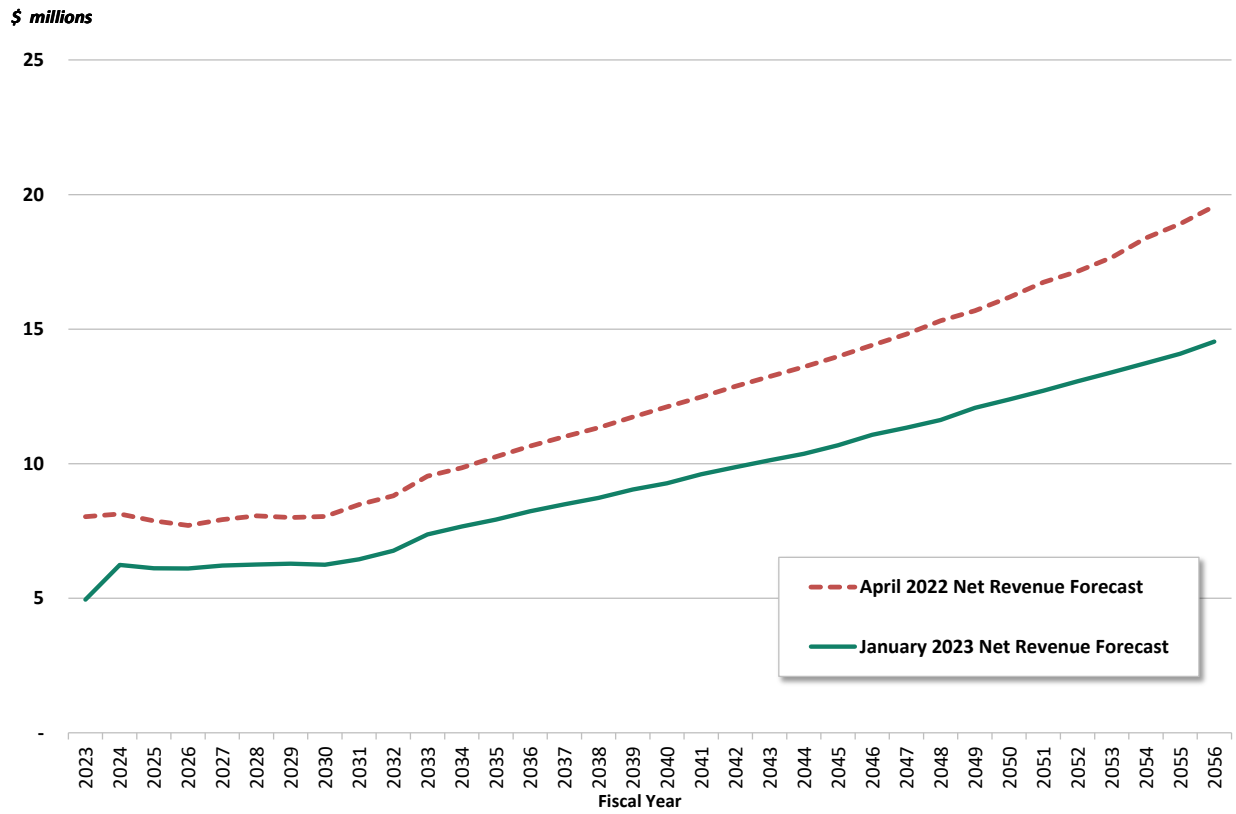
The combined \$99.5 million decrease includes BOS O&M costs that are \$6.5 million (18.1 percent) higher than the April 2022 estimates. This can be primarily attributed to the revision in cost allocation methodology for BOS O&M by including the actual expenditures for the new BOS vendor following over one year of operational experience. Systemwide BOS costs assumed in the January 2023 forecast now reflect the BOS vendors actual contract experience, which also forms the basis for extrapolating future BOS vendor costs.

Similar to other allocated costs, SR 520's share of systemwide CSC BOS vendor costs is slightly lower in the near term as a result of inclusion of non-revenue trips in the cost allocation process, which specifically include carpool HOV exempt trips on the I-405/SR 167 Express Toll Lanes. Adding non-revenue trips results in a higher share of costs for I-405/SR 167 and lower share of transactions for the other facilities, including SR 520. Starting in FY 2026, the Gateway program's projects are assumed to be added to the system of toll facilities. The lower projected Gateway program toll transactions in the current cost allocation forecast results in a higher share of costs allocated to SR 520, offsetting the decrease in SR 520 allocated costs from inclusion of non-revenue transactions on I-405 and SR 167.

The increase in BOS vendor costs are more than offset by a decrease of over \$105.9 million for CSC vendor O&M costs, which represent a 27.7% downward revision from the April 2022 estimates. The lower projections are primarily the result of incorporating final contract terms and recent actual expenditures under the new systemwide CSC vendor. Previous cost forecasts were developed prior to the new vendor operational start date and assumed both higher vendor passthrough costs and cost contingencies, the need for which have not materialized. The lower costs based on actual experience were partially offset by higher allocated costs to SR 520 as a result of inclusion of non-revenue transactions and revisions to forecasts for all the facilities, specifically lower projections for Gateway.

Exhibit 21 illustrates the forecast horizon CSC and BOS costs for the January 2023 and April 2022 forecasts. CSC Operations Vendor O&M costs are included in column 26 and BOS Software Vendor O&M costs in column 27 of Exhibit 29 in Appendix A.

**Exhibit 21: SR 520 Share of System-wide CSC and BOS Cost Projections in YOE \$ (FYs 2023-56)**



## Routine Facility Operations and Maintenance (Column 28)

Routine operation and maintenance of the SR 520 physical assets are critical to providing continuous, uninterrupted toll revenue generation. Proper maintenance of the facility also ensures that the expected level of service is provided to motorists. Typically, facility O&M activities include lane restriping, lighting maintenance, routine bridge repairs, pothole and pavement repair, traffic operations, signage, litter pickup, etc. These activities help to preserve safety and travel reliability along the corridor. A more detailed list of facility maintenance activities is provided in Appendix C as Exhibit 31.

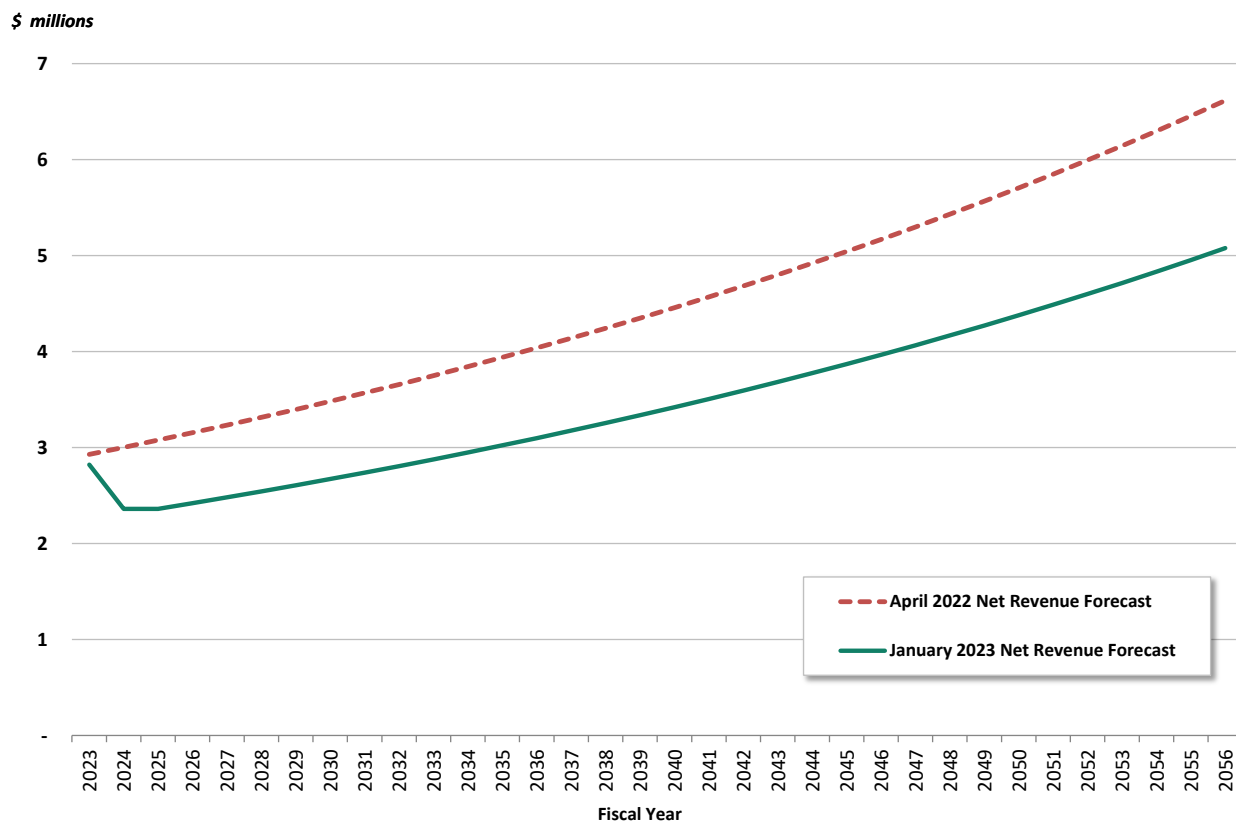
As described in section 1 | Introduction and Key Forecast Changes, the SR 520 corridor program is comprised of five major components, the first four of which include construction funding supported by tolls. The facility O&M costs for these four components with toll funding are assumed to be paid from future tolls in the current and previous forecasts. The capital costs for the fifth component — the section from I-5 to Lake Washington (the “Rest of the West”) — are funded solely from the Connecting Washington transportation revenue package as passed by the legislature in 2015 and funded with motor vehicle fuel taxes. Because the Rest of the West does not include any toll funding, WSDOT assumes that the O&M costs for the existing and reconstructed roadway and structures comprising this fifth component will continue to be paid from motor vehicle revenues other than tolls.

After the selection of a preferred design alternative in 2010, WSDOT’s SR 520 project office established a maintenance task force of engineering, maintenance, and design staff to conduct a full review of the Program’s projected facility O&M costs. Responsibility for updating costs transferred from the SR 520 Project office to the Northwest Region (NWR) office in 2018. In 2019, the NWR program management and maintenance staff reassessed and updated the O&M (and R&R) estimates based on most up-to-date information for the November 2019 forecast. With the COVID-19 pandemic, NWR and HQ staff opted to refine only the R&R cost estimates, based upon more accurate major maintenance pricing details in what became the April 2022 forecast. For the current January 2023 forecast, the underlying cost and timing assumptions for the facility O&M and R&R cost projections were revised to more accurately reflect current market conditions and recent actual O&M activities on the SR 520 Bridge.

Over the forecast horizon, facility O&M cost assumptions for the January 2023 forecast have been refined to incorporate the latest information provided by the NWR office on requirements, the 2023-25 biennium Governor’s budget appropriation request, as well as seven years of actual O&M (and R&R) expenditures on the facility. Unit costs for labor, materials and supplies, and other (utilities, etc.) were reevaluated based on FY 2022 actual expenditures. The remaining cost assumptions were unchanged from the April 2022 forecast, including the 2.5% annual inflation assumption used to escalate costs to future YOY dollars.

Based on these updates, the January 2023 forecast for facility O&M costs reflects a \$35.2 million decrease (22.9%) over the FYs 2023-56 horizon. The current and prior annual facility O&M cost projections are illustrated in Exhibit 22, with forecast values provided in column 28 of Exhibit 29 in Appendix A.

**Exhibit 22: Projected Facility O&M Costs for the toll funded segments in YOE \$ (FYs 2023-56)**



**Bridge Insurance Premium (Column 29)**

Annual insurance costs for the SR 520 Bridge comprise bridge insurance premium payments and brokerage fees. Current insurance premium and coverage levels are provided by the Office of Risk Management (ORM) within the Department of Enterprise Services. Insurance coverage on the bridge and approach structures includes property damage on the Portage Bay Bridge, West Approach, Floating Bridge, and East Approach, as well as business interruption coverage for a total insured value of \$1.64 billion with a \$400 million all-risk policy limit.

Coverage is provided for property damage losses caused by forces of nature, component failure, or acts of terrorism with the \$400 million limit for all risk loss protection, except for losses caused by earthquake or flood, which have \$100 million limits. There is a \$10 million deductible that applies to all property damage losses. In addition, coverage includes business interruption insurance with a \$100 million limit for revenue due to a covered loss and there is a \$100 million limit for boiler & machinery equipment breakdown risk, with an applicable \$10 million deductible. Overall, the current asset value increased from \$1.53 billion as the basis for the FY 2022 premium to \$1.64 billion for the FY 2023 premium.

Brokerage fees are paid on a monthly basis. The fees are determined at a statewide level including SR 520 and TNB bridges and then allocated to individual facility, with a 2.5% annual escalation factor applied to account for inflation purposes. Also, starting FY 2032, with tolls likely to be discontinued on TNB, the insurance costs calculation assumes a higher share of statewide brokerages fees to be allocated to SR 520.



Bridge insurance premium costs over the forecast horizon increased by nearly \$84.0 million or 28.3% compared to the April 2022 forecast. The increase is attributed to the higher FY 2023 insurance premium cost of \$7.2 million incurred in August 2022, compared with a projected cost of \$6.7 million in the April 2022 forecast. The methodology for forecasting insurance premiums now assumes a fixed 2.5% cost escalation per year as opposed to annual escalation based on the rate of change in gross toll revenues. The basis for prior forecasted growth rates using toll revenues was to reflect coverage of potential revenue loss due to an unplanned closure of the facility. Recent higher than anticipated increases in insurance premiums are primarily attributed to macro-level impacts, including consolidation in the market and an overall increase in insurance claims and risk exposure, as opposed to conditions and risks attributed to specific SR 520 assets.

- The near-term premiums are based on the most recent payment from early FY 2022 and historical average increases in insurance premium rates over the past seven years, which have revised upward since the April 2022 forecast.
- The challenging market conditions over the past few years continue to persist, and key drivers for recent rate increases include catastrophic losses such as hurricanes Harvey, Irma and Maria in 2017, California wildfires in 2018/19/20, winter storms in 2021 as well as impacts of the COVID-19 pandemic. These catastrophic events and the pandemic have increased the property risk exposure, potential threat to business continuity and loss of operational revenue.
- Also, most insurers have suffered attritional losses and unprofitability over the past two years during COVID and various natural disasters, resulting in re-evaluation and further increases in their pricing.
- Higher near-term premiums provide a higher basis upon which more modest longer-term premium growth rates are derived from the rates of revenue growth, which vary year to year but are overall higher than the prior forecast.

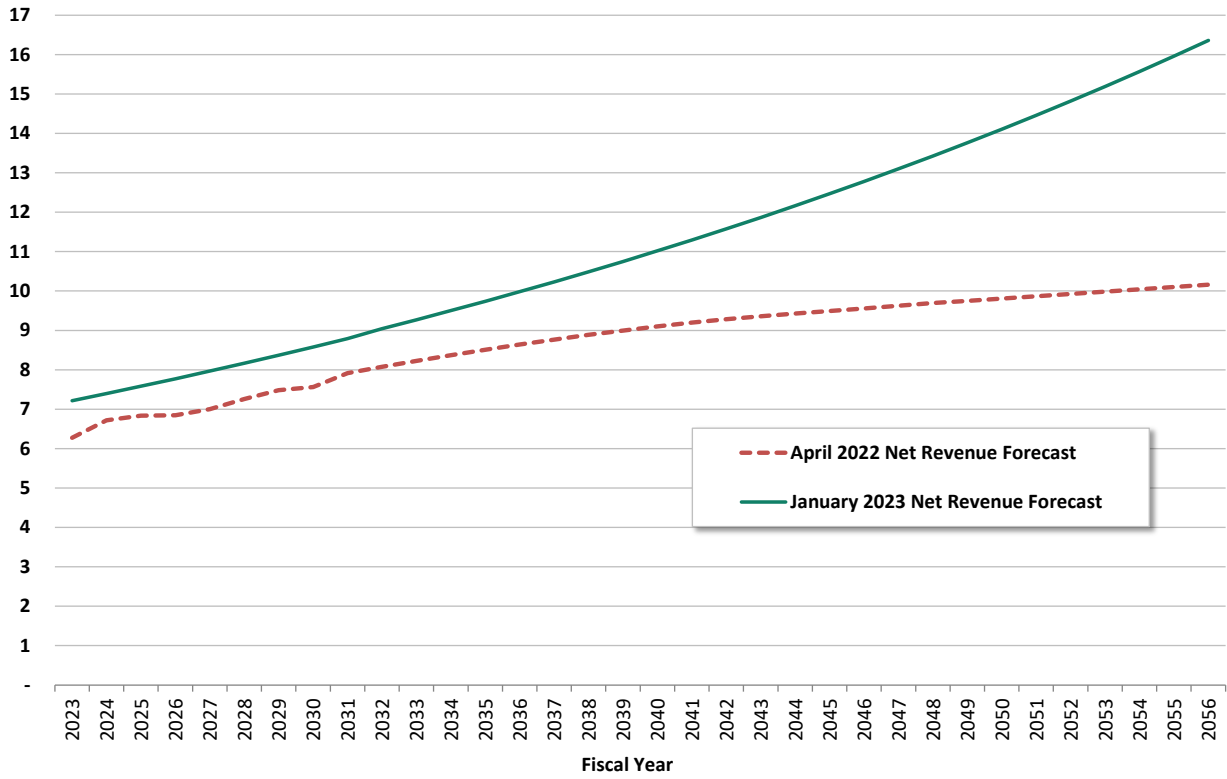
DES recently completed a study of insurance options, which identified potential opportunities for some degree of self-insurance for the agency, possibly reducing WSDOT's annual insurance premium payments. However, a qualified actuary and the conduct of a probable loss study on the bridge was determined to be necessary to accurately estimate the amount required to fund a self-insurance program that complies with the requirement of the bond resolution.

While the COVID-19 pandemic has contributed to the higher premiums observed in the insurance market, as the pandemic subsides and operations stabilize, market forces could result in a correction that could also bring down the premiums in the medium- or long-term.

The current and prior annual insurance premium projections are illustrated in Exhibit 22, with forecast values provided in column 29 of Exhibit 29 in Appendix A.

**Exhibit 23: Projected Insurance Costs in YOE \$ (FYs 2023-56)**

\$ millions



## 6 | Changes to Other Project Uses of Toll Revenues

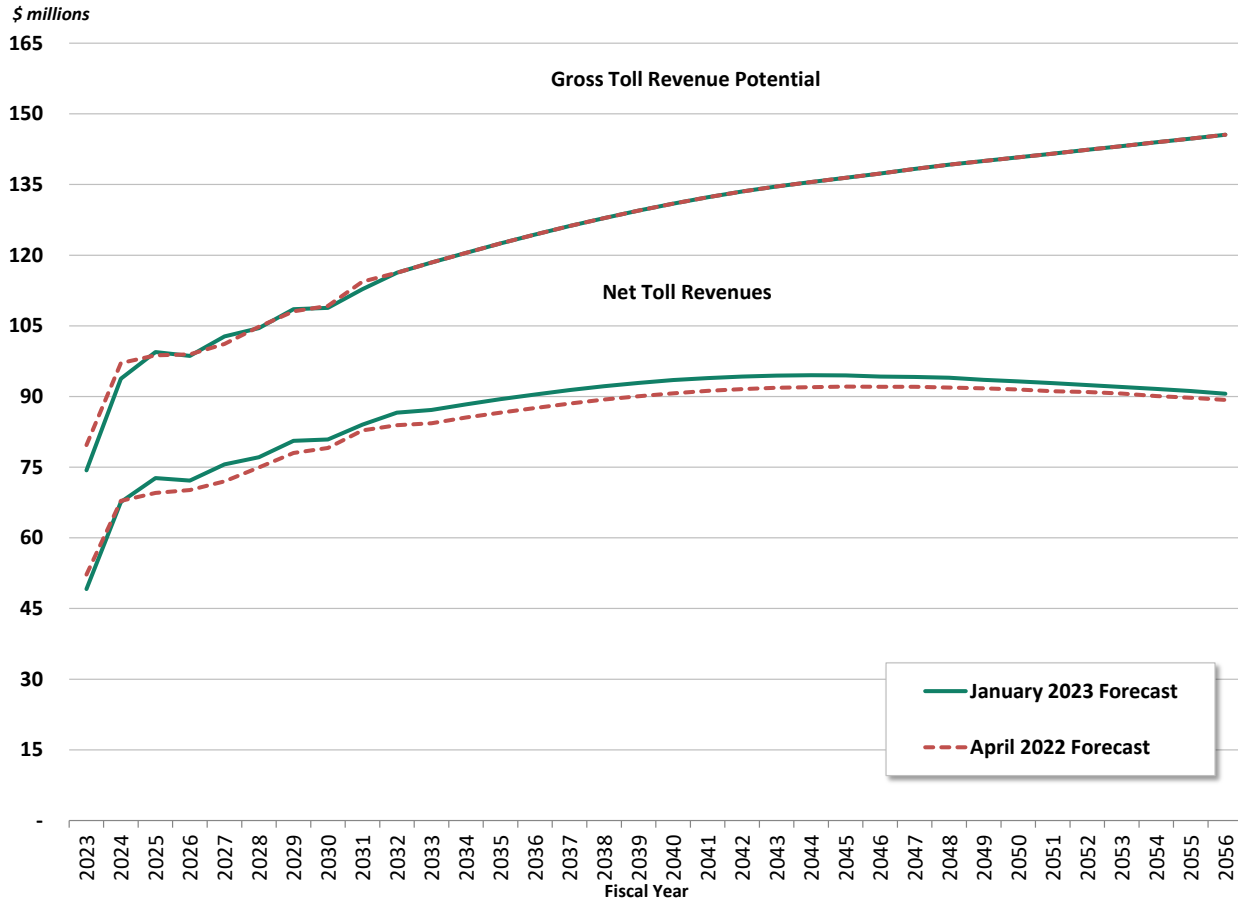
### Total Net Revenue (Column 30)

Starting with Gross Toll Revenue Potential in column 11 of Appendix A Exhibit 29, the addition and subtraction of the various revenue adjustments in columns 12-21 and the O&M expenditures in columns 22-29 result in the total projected net toll revenue in column 30 available to support financing, contribute to required reserves, and provide for other project uses.



Exhibit 24 illustrates the spreads between the gross and net toll revenue over the forecast horizon for the prior April 2022 and current January 2023 forecasts. The differences in the sums of the annual values over the forecast horizon are shown in Exhibit 4 on page 11.

**Exhibit 24: Projected Gross and Net Toll Revenues (FYs 2023-56)**



Other downstream uses of net toll revenues include deferred sales tax, periodic facility R&R costs, and periodic toll-related R&R costs as shown in the waterfall on the previous page. In accordance with the SR 520 financial plan flow of funds, net revenues are used to pay debt service first, with annual reserve account contributions for deferred sales tax and R&R coming downstream from coverage revenues. Descriptions for these other uses of tolls are provided below.

### **Deferred Sales Tax on Construction (Column 31)**

The 2008 Washington State Legislature, through ESHB 3096 codified as RCW 47.01.412, granted the SR 520 Program the ability to defer a portion of the state and local sales tax payable on construction until five years after the replacement bridge is constructed and open to traffic. The State is deferring sales tax on almost all of the corridor program components with toll funding support, with the exception of sales tax paid in Grays Harbor County that applied to the floating bridge pontoon construction site development. Toll revenues are assumed to be the source of funding used to pay the deferred sales tax in 10 equal annual installments.

The first of the 10 equal annual installments was originally due on December 31st of the fifth calendar year after the certified date by which the program components with toll funding are operationally complete. The final program component to-date to use toll funding, the West Approach Bridge North, was completed in mid-2017, which would make the first deferred sales tax payment due on December 31, 2022, midway through FY 2023. However, the 2022 Washington State Legislature, via passage of HB 2024 which amended RCW 47.01.412, has effectively deferred the payment of construction sales tax until the twenty-fourth year after the certified completion date. Commencement of deferred construction sales tax payments is now projected for mid FY 2042.

The January 2023 forecast values, shown in column 31 of Exhibit 29 in Appendix A, maintain the total repayment of value of \$159.4 million in 10 equal annual installments from the April 2022 forecast from FY 2042 through FY 2051.

### **Toll-Related Repair and Replacement Costs (Column 32)**

Toll-related R&R costs include the periodic repair, rehabilitation, and replacement of the RTS hardware and equipment. In addition to hardware and equipment, the R&R cost forecast includes SR 520's share of the systemwide administrative and technical-related costs incurred by WSDOT to periodically procure both the RTS and CSC vendor contracts as well as implement and test new systems software and toll collection equipment hardware.

Additional detail on toll-related R&R and vendor procurement costs is provided below, and the annual cost projections in year of expenditure dollars are provided in column 32 of Exhibit 29 in Appendix A.

#### Roadway Toll Systems Repair and Replacement Costs

RTS vendor R&R costs include upgrades to, or replacement of, cameras and transponder readers, networking equipment, and fiber optic communication lines. While it may be possible to get more than 10 years out of some hardware components and/or for WSDOT to extend the contract for an established RTS vendor, the cost projections conservatively assume that the RTS vendor and entire RTS system will be replaced every 10 years. This periodic procurement is next scheduled to commence in FY 2026 and conclude in FY 2027, which includes up to one year for procurement of a state-wide vendor to provide the

entire roadway toll system, followed by implementation and testing of each facility to allow for a smooth transition to a new vendor and/or new equipment.

Allocation of systemwide RTS procurement costs are calculated using the total number of active toll facilities rather than the number of toll points to avoid concerns of over-allocation of primarily fixed costs to the I-405 Express Toll Lanes and the SR 167 HOT lanes with their multiple toll points.

The January 2023 RTS R&R costs are a no-change forecast from the April 2022 forecast.

#### CSC and BOS Repair and Replacement Costs

In addition to costs related to RTS vendor procurement, implementation, and testing, the periodic costs to procure the BOS software and CSC operations vendor contracts along with implementation and testing are also included in the Periodic Toll Equipment and CSC R&R column in the net revenue table as provided in Exhibit 29. A USDOT Urban Partnership Agreement grant covering SR 520 paid for the initial procurement of the Customer Service Center vendor, including implementation, and testing. Going forward, future costs associated with procuring one or more CSC and BOS vendors will be allocated across all the authorized toll facilities based on each facility's share of total system wide transactions.

Similar to BOS O&M costs, systemwide BOS vendor procurement (R&R) costs are allocated on toll transactions. This is a revision in methodology from the prior January 2023 forecast that assumed allocation based on both toll and toll-free or non-revenue transactions. The revision in allocation assumptions is based on continued review of costs that are applicable to non-revenue transactions and potential revisions to cost allocations based on the findings of the ongoing review. Removing non-revenue transactions is considered conservative from the perspective of SR 520 as it decreases the share of BOS costs allocated to the I-405 and SR 167 Express Toll Lanes that account for a majority of non-revenue trips as a result of HOV carpool exemptions.

Procurement costs also use the full forecasted transactions for each toll facility over the anticipated length of the vendor contract to establish each facility's share of the total systemwide costs. Using an extended 10-year horizon helps to even out ramp-up factors for new facilities just starting operations and ensures that future facilities that benefit from vendor operations are contributing to the procurement of the vendor. Costs are assumed to escalate by 2.5% per year to account for inflation.

Similar to BOS procurement costs, CSC costs use the full forecasted transactions for each toll facility over the anticipated length of the vendor contract to establish facility shares of the total systemwide costs. The current forecast values assume that the operations vendor contract will be procured for a base period of six years, with two optional two-year contract extensions. As a conservative approach, the forecast assumes only one two-year contract extension will be administered per procurement cycle, resulting in an eight-year effective contract period, with seven years between vendors after accounting for a one-year overlap period. Using an extended eight-year horizon helps to even out ramp-up factors for new facilities just starting operations and ensures that future facilities that benefit from vendor operations are contributing to the procurement of the vendor. Costs are assumed to escalate by 2.5% per year to account for inflation.

The previous CSC/BOS vendor was contracted to provide hosted software capable of account management, transponder inventory management, website administration, image reviews, adjudication management, pay-by-mail invoice generation and distribution (transferred to WA Department of Enterprise Services in 2016), collection oversight and accounting. The deployed software was referred to as a first generation (Gen 1) system in customer toll transactions processing for WSDOT. The newly procured BOS vendor is providing a second generation (Gen 2) system software solution. The (Gen 2) BOS software for toll

transaction processing and customer account management would provide the capability to integrate of *Good To Go!* toll technology as an alternative payment method for Washington State Ferries (WSF). In addition, the Gen 2 system would address other concerns with the existing system by allowing for the following improvements:

- Enhancing key performance indicators (KPIs) to better measure things which would add immediate value to the customer service delivery, such as the customer website for account management, the CSC phone system, and support for routine and ad hoc reporting;
- Reduce the frequency of changes to operating rules, which can create an unstable environment where operational consistency is difficult to achieve;
- Facilitate training that better prepares customer-facing staff to deliver consistent information and service to customers;
- Provide a better path toward compliance with established policies and procedures required for good customer service; and
- Expedite recognition and resolution of transaction processing and customer service issues.

Following the recently completed vendor transition, the WSDOT Toll Division will allow for a separate BOS and CSC vendor procurement model going forward. However, separate BOS and CSC vendor RFPs do not preclude the selection of the same vendor for both contracts.

- BOS Software — The back-office system software is integrated with the RTS (lane system) equipment, the CSC vendor (if different), WSDOT's accounting system (TRAINS), the Washington State Department of Licensing (DOL), and a third-party out-of-state license plate look-up vendor. The latter two parties are required for identifying Pay By Mail customer names and addresses for mailing toll bills.
  - The existing and future BOS vendor contracts are assumed to be 10 years in duration, with the procurement, transition, and replacement of the systems software and vendor spread across up to two fiscal years. RFP development will occur with a vendor solicitation in year 9, concurrent with two years of development, design, testing, and installation in years 9 and 10. In addition, transition support will occur during the last year of the outgoing vendor's contract as a reimbursable expense included in the overall procurement R&R cost.
- CSC Operations — The customer service center operations vendor is primarily responsible for the staff performing the front and back-office customer service operations tasks. These would include call center operations, back-office transaction processing, license plate image review, transponder inventory management and distribution, adjudication management, collection oversight, and retail front office services. Toll bill printing and mailing, recently transferred from the CSC back-office vendor to the state Department of Enterprise Services, could potentially be added back to the scope of work for a future CSC operations vendor procurement.
  - The current forecast values assume that the operations vendor contract will be procured for a base period of six years, with two optional two-year contract extensions. As a conservative approach, the forecast assumes only one two-year contract extension will be administered per procurement cycle, resulting in an eight-year effective contract period, with seven years between vendors after accounting for a one-year overlap period. The revised assumption was made to better reflect the recent vendor transition experience and account for more conservatism in the cost estimates for future procurement cycles.



- In addition, WSDOT can evaluate what services may remain with the CSC operator or be brought in-house on a task-by-task basis in order to optimally leverage each group's areas of expertise.

In addition to the initial development costs for software and hardware, maintenance and technical support are included in the routine WSDOT, and Consultant Operations staff costs and vendor contract costs discussed in their respective sections.

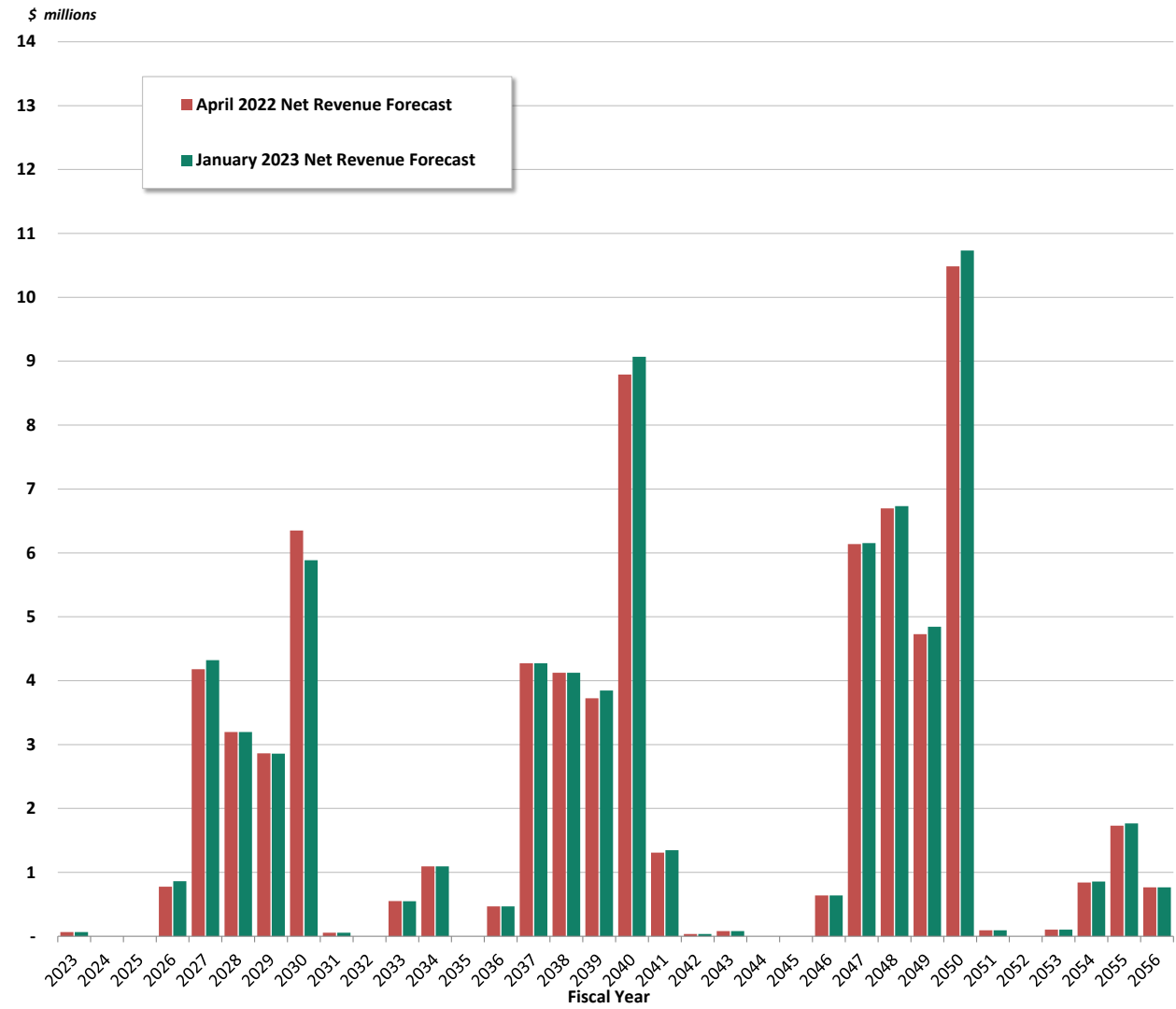
The Gen 2 BOS software is designed to be capable of adding new toll facilities as such facilities are authorized for tolling by the state legislature. Although the forecast assumes the Gen 2 system is capable of back-office integration with WSF, this is not yet assumed to be part of the operations, and thus, costs for that customization are excluded since WSF doesn't contribute to procurement or operational costs.

The inclusion of a fractional portion of non-revenue trips for the BOS vendor cost allocation to each toll facility in the January 2023 forecast results in a higher share of BOS costs allocated to I-405 and SR 167 ETLs as a result of toll-free HOV carpool trips, thus decreasing the cost allocation share for SR 520 as well as SR 99 and TNB, all of which have limited non-revenue transactions compared to the ETL facilities. Noting the recently completed vendor transition, the January 2023 and April 2022 forecasts both use FY 2022 as the first full operational year for the recently procured BOS and CSC vendors.

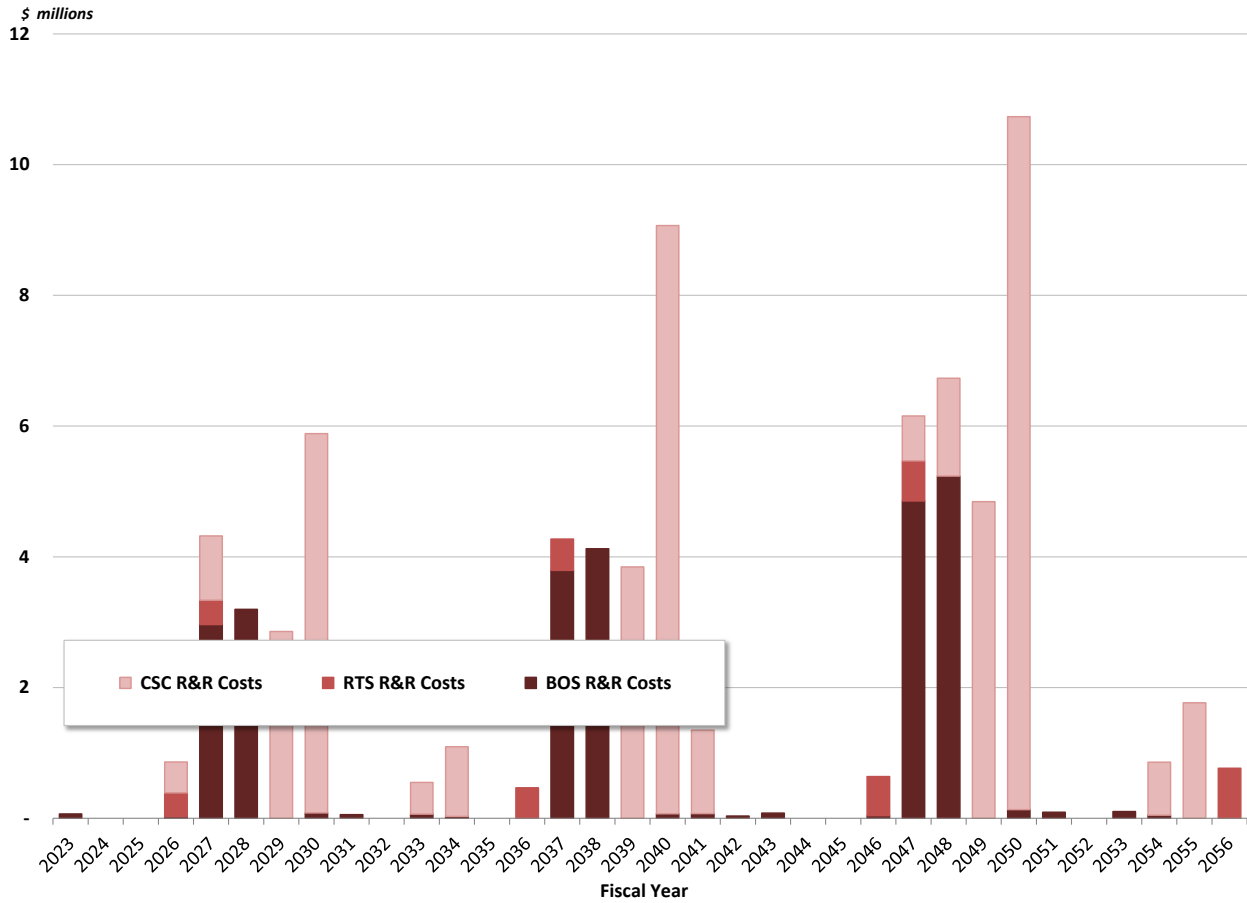
In aggregate, over the FYs 2023-56 forecast horizon, the SR 520 total BOS and CSC R&R costs have increased by \$0.66 million, or 0.9% compared to the April 2022 forecast.

Exhibit 25 illustrates the total SR 520 toll-related R&R costs for the January 2023 and previous April 2022 forecasts. Exhibit 26 further illustrates the composition of the January 2023 forecast values by the main sub-components of toll-related R&R costs.

**Exhibit 25: Toll Collection Repair and Replacement Cost Forecast Comparison in YOE \$ (FYs 2023-56)**



**Exhibit 26: January 2023 Forecast for Toll Collection Repair & Replacement Costs by Component in YOE \$ (FYs 2023-56)**



### Periodic Facility Repair and Replacement Costs (Column 33)

Costs associated with periodic facility R&R activities are assumed to be funded from the WSDOT preservation program (“P program”) using toll revenues and other non-toll sources. Periodic facility costs typically involve major capital upgrades, renewal, and improvements, including replacement of anchor cables, replacement of strip seal expansion joints, surface rehabilitation, painting, and related capital rehabilitation. Cost estimates for periodic R&R items are dependent upon several design characteristics of the facility, including the type of construction materials and structural attributes.

As with facility O&M costs, WSDOT’s NWR maintenance staff has responsibility for reviewing, revising, preparing, and documenting the costs for R&R activities. Like the O&M costs, R&R projections were prepared by roadway segment and cost category. In 2019, the NWR program management and maintenance staff reassessed and updated the O&M and R&R estimates based on most up-to-date information available. As a result of the COVID-19 pandemic, what would have been a November 2020 update was deferred until June 2021, and WSDOT NWR region office and HQ staff opted to refine only the R&R estimate based upon more accurate major maintenance pricing details. The R&R unit costs and projection estimates for the subsequent January 2023 forecast update were further refined and adjusted to reflect changes in the prices for materials and labor, and assumptions on major component replacement timelines.

A map illustrating the roadway segments in the SR 520 corridor is provided as Exhibit 1 in the Introduction on page 5. For the purpose of these projections, it was previously determined that toll revenues would be used to fund 100% all periodic facility R&R expenditures for the bridge structures and related components with toll funding, such as replacement of expansion joints, bridge decking, and anchor cables. In addition, toll revenues would pay for the active traffic management (ATM) and data systems R&R costs throughout the SR 520 corridor. In contrast, WSDOT’s non-toll funding from the Preservation Program P would be used for non-bridge program components with toll capital funding, primarily the at-grade highway section between the floating bridge and I-405 (Eastside). R&R costs not paid from tolls in this section would include pavement grinding and resurfacing, and roadway lighting.

Watertight, electrical and mechanical systems are required to maintain the safe operation of the floating portion of the bridge. The Washington State Transportation Commission Resolution No. 398<sup>3</sup> directs WSDOT to conduct these inspections on all floating bridges in Washington State on an annual basis. Therefore, the SR 520 floating bridge will receive these essential inspections, designated “Blue Ribbon” inspection as directed by the Governor<sup>4</sup> and the Washington State Transportation Commission.

The 2015 Legislature authorized \$1.64 billion in funding for the Rest of the West improvements between I-5 to Lake Washington via the Connecting Washington transportation revenue package. As a result of this action taken by the State Legislature to construct the fifth and final component of the SR 520 corridor program using only motor vehicle tax revenues other than tolls, WSDOT assumes that the R&R costs for the Rest of the West will continue to be funded from non-toll motor vehicle revenues sources within the Preservation Program.

On March 25, 2022, the Washington State governor signed the Move Ahead Washington plan into law. Move Ahead Washington dedicates funding for the SR 520 Seattle Corridor Improvements West End Project, including \$80 million from Move Ahead appropriation, \$325 million of the state route number 520 corridor account-state appropriation, and \$1 million of motor vehicle account-private/local appropriation. The funding includes \$100,000 for noise mitigation activities. Furthermore, the law states that upon completion of the Montlake Phase of the West End Project, the department shall sell any property not used for permanent transportation improvements.

The January 2023 forecast for facility R&R costs aligns with standard WSDOT project scoping practices. This included a detailed review performed by subject matter experts to analyze the maintenance and replacement activities, and work quantities for appropriateness, leveraging their experience and industry standards to determine the optimal asset replacement cycles, and assessing the recently awarded contract prices as well as historical bids to recommend suitable unit costs.

Traffic control activities are included within the R&R unit costs on relevant items. Other markups (miscellaneous, mobilization, tax, construction, contingencies, preliminary engineering) are applied based on the total estimated cost in the year of expenditure dollars and on the type of work (i.e., preliminary and

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<sup>3</sup> Resolution 398 of the Washington State Transportation Commission, dated May 16, 1991

<sup>4</sup> Report of the Governor’s Blue Ribbon Panel, dated May 2, 1991, “Investigation into the Sinking of the I-90 Lacey V. Murrow Bridge”

construction engineering). The percentages for “other markups” are in accordance with the WSDOT Cost Estimating Manual<sup>5</sup>, Plans Preparation Manual<sup>6</sup> and Ebase User’s Guide<sup>7</sup>.

The forecast horizon facility R&R cost assumptions for the January 2023 forecast have been refined to incorporate the latest information provided by the NWR office on requirements, the 2023-25 biennium Governor’s budget appropriation request, as well as seven years of R&R (and O&M) expenditures on the facility. Base costs for labor, materials and supplies, and other (utilities, etc.) were revised upwards to capture recent above average cost escalation. Bridge item unit base costs were updated to FY 2020 actual expenditures, and non-bridge item unit base costs were updated by NWR based on known FY 2023 actual expenditures. In addition, the installation schedule for majority of the R&R items remained the same, with the exception of the Bridge Deck and Expansion Joint Sealing project, which is scheduled for 2024-25 on Segments 2A and 2C and will continue in 5-year increments, compared with 2023-24 previously assumed in the April 2022 forecast. The remaining cost assumptions were unchanged from the April 2022 forecast, including the 2.5% annual inflation assumption used to escalate costs to future YOE dollars.

Based on these updates, the January 2023 forecast for facility R&R costs reflects a \$35.7 million increase (8.9%) over the FYs 2023-56 horizon. Facility R&R costs funded by toll revenues are shown in column 33 of the Exhibit 29 T&R table for the January 2023 forecast. Annual amounts for both the current January 2023 and previous April 2022 forecasts are graphically depicted in Exhibit 27.

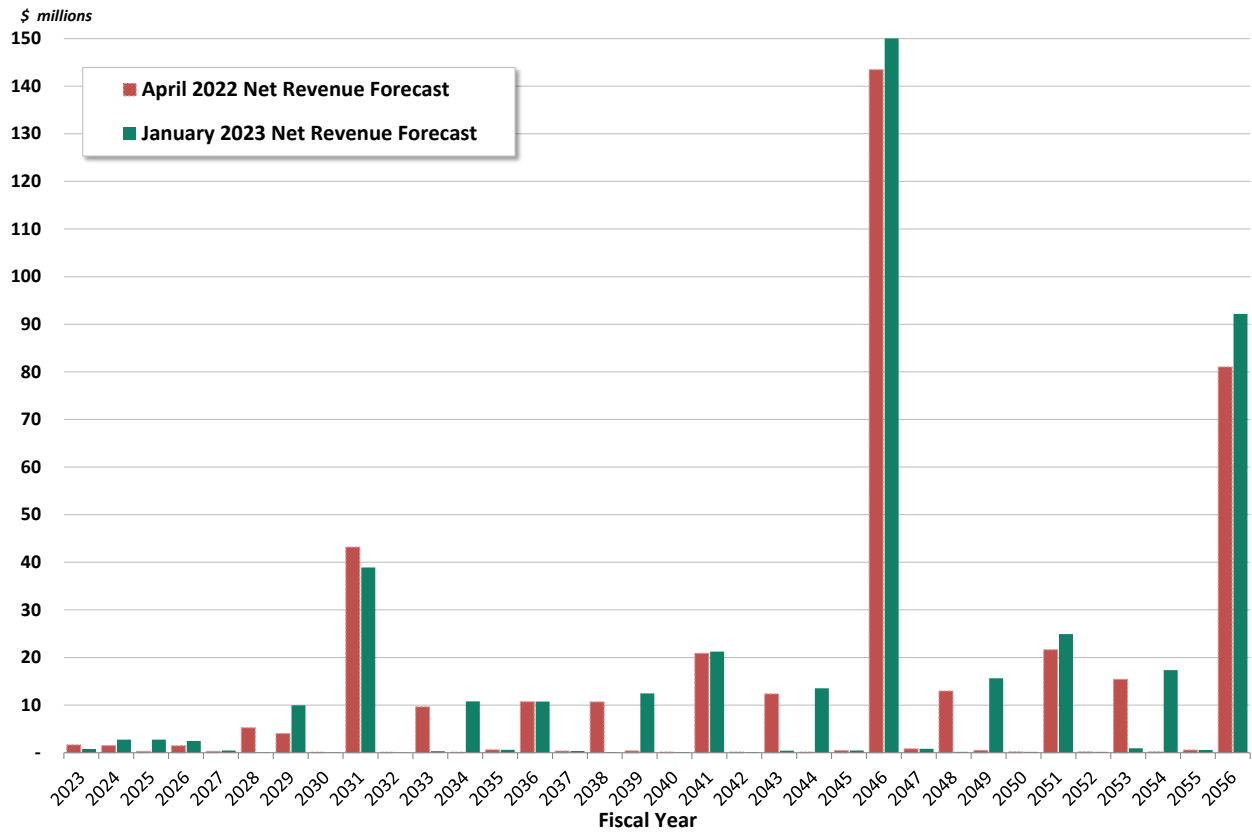
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<sup>5</sup> Cost Estimating Manual for Projects, WSDOT, December 2020

<sup>6</sup> Plans Preparation Manual, WSDOT, September 2020

<sup>7</sup> Ebase User’s Guide, May 2021

**Exhibit 27: Toll-Funded Facility Repair & Replacement Costs by Forecast in YOE \$ (FYs 2023-56)**





## **Appendix A: Annual Toll Traffic & Revenue Projections**

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The T&R table provided on the following page as Exhibit 29 shows the adjustments, additions, and reductions to Stantec’s Gross Toll Revenue Potential forecast that yield the net toll revenue cash flow available for debt service and other downstream uses.

Key changes and additions to T&R table columns by forecast are shown in Exhibit 28 below, with (#) representing the table column number.

**Exhibit 28: Changes in the T&R Table Format across the Annual Net Revenue Forecasts**

SEPTEMBER 2011	SEPTEMBER 2012*	OCTOBER 2013 & NOVEMBER 2014	NOVEMBER 2015	NOVEMBER 2016-18	NOV 2019, JUNE 2021, APRIL 2022	JANUARY 2023
Gross Toll Revenue (11)	Gross Toll Revenue Potential (11)	No change	No change	No change	No change	No change
Free Trip Incentive (12)	No Change	Included in actuals for Toll Payment Discounts & Fees (12)	No change	No change	No change	No change
Self-Initiated Payment Incentives (13)	No Change	Included in Toll Payment Discounts & Fees (12)	No change	No change	No change	No change
<i>Good To Go!</i> Pay By Plate Fees (14)	<i>Good To Go!</i> Pay By Plate Surcharge (14)	Included in Toll Payment Discounts & Fees (12)	No change	No change	No change	No change
Late Payment Fees (15)	No change	Pay By Mail (PBM) Rebilling Fees (18)	No change	No change	No change	No change
N/A	N/A	N/A	N/A	Recaptured Toll Revenue at <i>Good To Go!</i> Rates via CPR (15)	No change	No change
N/A	N/A	Gross Toll Revenue Collected (15)	No change	Gross Toll Revenue Collected (16)	No change	No change
Uncollectible Transactions/Leakage (16)	Uncollectible Accounts (16)	Revenue Not Recognized (13), Unpaid Toll Revenue (14)	No change	No change	No change	No change
N/A	N/A	Misc. Pledged Revenues (16)	No change	Misc. Pledged Revenues (17)	No change	No change
Recovered Toll & Fee Revenue (17)	No change	Recovered Toll Revenue (19), recovered fees included in PBM Rebilling Fees (18)	No change	Toll Revenue Recovered at PBM Rates via NOCP (20), recovered fees included in PBM Rebilling Fees (19)	No change	No change
Adjusted Gross Toll Revenues (18)	No change	Adjusted Gross Toll Revenue & Fees (20)	No change	Adjusted Gross Toll Revenue & Fees (21)	No change	No change
Transponder Sales Revenue (19)	No change	Transponder Sales Revenue (17)	No change	Transponder Sales Revenue (18)	No change	No change
Credit Card Fees (21)	Credit Card Fees (22)	Credit Card Fees (21)	Credit Card Fees (21): now excludes fees from tag sales	Credit Card Fees (22)	No change	No change
Transponder Purchase & Inventory Cost (20)	No change	Included in Toll Collection O&M (22)	Included in Toll Collection O&M (22); now includes credit card fees on tag sales	Included in Toll Collection O&M (23)	No change	No change
Routine Toll Collection O&M Costs (22)	Toll Collection O&M Costs (22)	Toll Collection O&M Costs (22), costs now include Transponder Purchase & Inventory	No change	Toll Collection O&M Costs (23)	Toll Collection CSC O&M Costs split up: CSC Ops Vendor O&M (26), BOS Software Vendor O&M (27)	No change
N/A	N/A	Periodic Toll Equipment and CSC R&R Costs (28)	No change)	Periodic Toll Equipment and CSC R&R Costs (29)	No change	No change
Remaining Net Toll Revenues After R&R/ Deferred Sales Tax (28)	Net Toll Revenue After Deferred Sales Tax and Periodic R&R (28)	Total Net Toll Revenue After Deferred Sales Tax and Periodic R&R (29)	No change	Removed	No change	No change

\* Forecast values correspond to the September 2012 Net Revenue forecast update, modified to incorporate nickel rounding of toll rates in fiscal years 2014-16, as adopted by the Washington State Transportation Commission in May 2013.

**Exhibit 29: SR 520 Traffic and Revenue Table — January 2023 Forecast**  
**Annual Transactions, Gross Revenue, and Net Revenue | FY 2012-56**

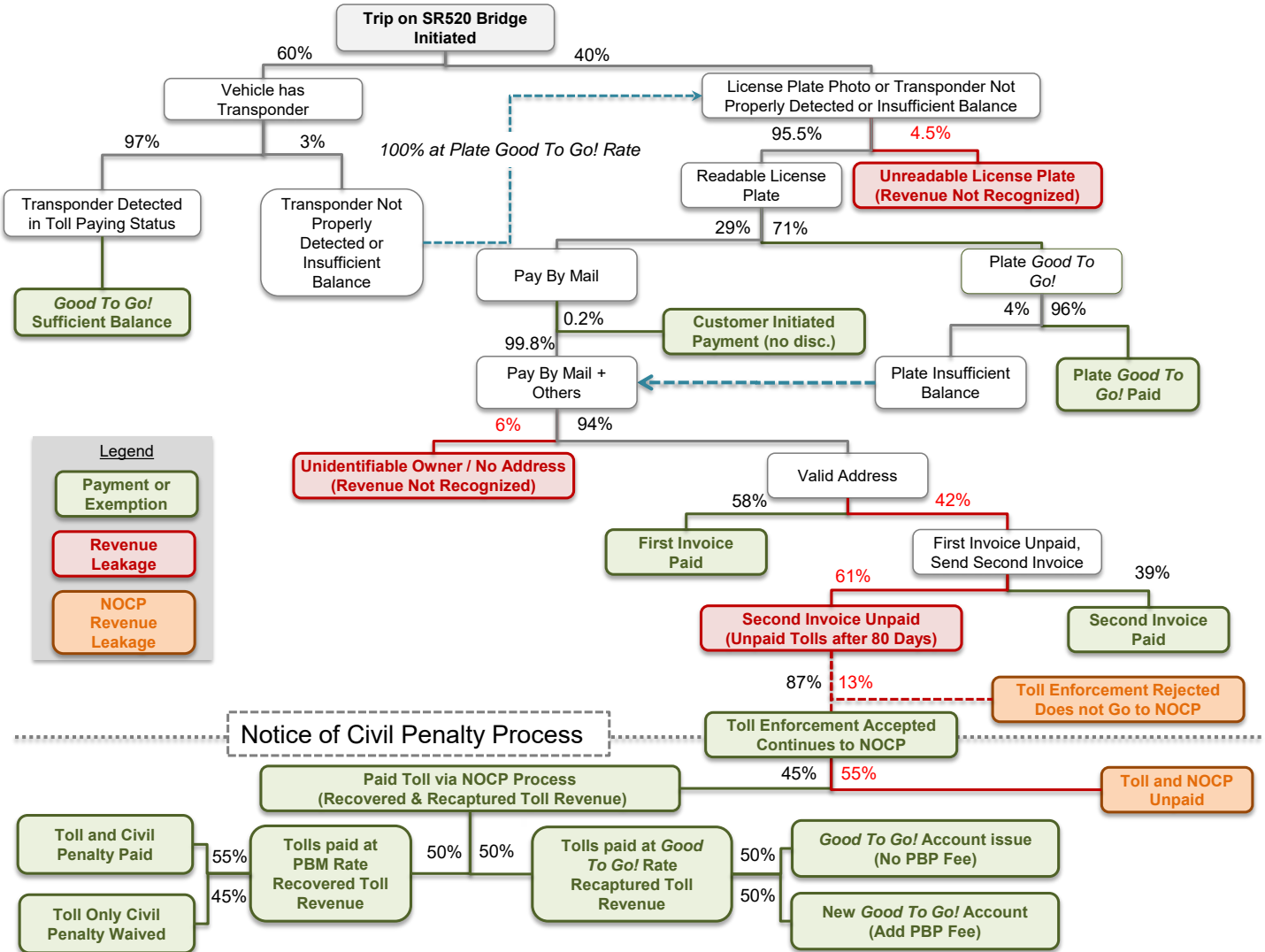
Prepared: 1/23/2023

Fiscal Year	Good To Go! Accounts			Pay By Mail / No Account			Total Toll Transactions (millions) <sup>1</sup>	Toll Revenue Potential		Total Gross Toll Revenue Potential (\$ millions) <sup>4</sup>	Plus (Less):		Less:	Plus:	Subtotal: Adjusted Gross Toll Revenue Collected (\$ millions)	Plus:		Subtotal: Adjusted Gross Toll Revenue & Fees (\$ millions)	Less:		Less:	Less:	Less:	Less:	Less:	Less:	Total Net Toll Revenue (\$ millions)	Deferred Sales Tax Payments (\$ millions) <sup>26</sup>	Periodic Toll Equipment and CSC Repair & Replacement (R&R) Costs (\$ millions) <sup>27</sup>	Periodic Facility Repair & Replacement (R&R) Costs (\$ millions) <sup>28</sup>			
	Wtd. Average Toll per PCE Transaction (one-way) <sup>1</sup>	Annual Bridge Toll Transactions (millions) <sup>2</sup>	PCE Bridge Volumes (millions) <sup>3</sup>	Wtd. Average Toll per PCE Transaction (one-way) <sup>1</sup>	Annual Bridge Toll Transactions (millions) <sup>2</sup>	PCE Bridge Volumes (millions) <sup>3</sup>		Good To Go! Pre-Paid Accounts (\$ millions) <sup>5</sup>	Pay By Mail / No Account (\$ millions) <sup>6</sup>		Toll Payment Discounts and Fees (\$ millions) <sup>7, 8, 9</sup>	Revenue Not Recognized (\$ millions) <sup>10, 11</sup>				Unpaid Toll Revenue (\$ millions) <sup>10, 12</sup>	Recaptured Toll Revenue at Good To Go! Rates via CPR (\$ millions) <sup>13</sup>		Misc. Pledged Revenues (\$ millions) <sup>14</sup>	Transponder Sales Revenue (\$ millions) <sup>15</sup>											Pay By Mail Rebilling Fees (2nd Invoice & Later Recovery) (\$ millions) <sup>16, 17</sup>	Toll Revenue Recovered at Pay By Mail Rates via NOCP (\$ millions) <sup>18</sup>	Credit Card Fees (\$ millions) <sup>19</sup>
2012	\$2.66	7.95	8.05	\$3.96	1.66	1.69	9.61	21.39	6.67	28.06	(0.21)	(0.69)	(1.05)	-	26.10	2.00	1.32	0.83	-	30.25	(0.43)	(0.93)	(3.53)	(0.32)	(2.18)	-	-	(1.64)	21.22	-	-	-	
2013	\$2.78	16.92	17.01	\$4.19	3.30	3.35	20.22	47.28	14.02	61.30	0.67	(1.52)	(5.01)	0.00	55.44	0.24	0.47	1.38	-	57.53	(0.91)	(0.33)	(1.94)	(0.29)	(4.60)	-	-	(2.43)	47.02	-	-	-	
2014	\$2.85	17.69	17.77	\$4.23	3.27	3.31	20.96	50.57	14.02	64.59	0.86	(1.68)	(3.28)	0.01	60.50	0.21	0.50	1.51	-	62.72	(1.08)	(0.35)	(3.40)	(0.36)	(3.87)	-	-	(2.52)	51.14	-	-	-	
2015	\$2.93	18.43	18.52	\$4.19	3.59	3.62	22.02	54.21	15.17	69.38	1.02	(3.82)	(2.69)	0.06	63.95	0.51	0.55	1.60	0.89	67.49	(1.20)	(0.34)	(3.67)	(0.37)	(4.78)	-	-	(2.22)	54.91	-	(0.35)	-	
2016	\$2.93	19.77	19.86	\$4.79	3.45	3.48	23.22	58.13	16.67	74.80	1.20	(3.70)	(3.73)	0.79	69.35	0.70	0.83	1.40	0.82	73.09	(1.31)	(0.55)	(4.36)	(0.27)	(4.75)	-	(0.81)	(2.26)	58.77	-	(0.48)	-	
2017	\$3.08	20.26	20.36	\$5.10	3.72	3.75	23.97	62.79	19.13	81.91	1.26	(4.54)	(4.29)	0.63	74.98	3.77	0.85	1.14	0.82	81.55	(1.56)	(0.59)	(4.90)	(0.41)	(5.62)	-	(2.36)	(2.24)	63.87	-	(0.80)	(0.21)	
2018	\$3.11	22.59	22.70	\$6.15	3.19	3.22	25.79	70.52	19.83	90.35	1.47	(4.40)	(4.85)	0.62	83.18	0.98	0.87	1.31	1.00	87.35	(1.73)	(0.59)	(4.88)	(0.52)	(5.92)	-	(1.76)	(2.48)	69.46	-	(2.56)	(0.28)	
2019	\$3.18	23.17	23.28	\$5.36	3.35	3.38	26.52	74.06	18.13	92.19	1.58	(4.36)	(4.53)	0.79	85.68	2.14	0.91	1.64	1.00	91.36	(1.85)	(0.65)	(4.93)	(0.37)	(8.02)	-	(2.23)	(3.83)	70.49	-	(4.04)	(0.06)	
2020	\$3.17	18.25	18.34	\$5.29	2.64	2.66	20.89	58.05	14.07	72.12	1.30	(2.86)	(4.90)	0.91	66.57	7.05	0.73	1.11	1.43	76.89	(1.50)	(0.48)	(4.34)	(0.46)	(9.26)	-	(2.03)	(3.28)	55.44	-	(2.02)	(0.11)	
2021 <sup>A</sup>	\$3.27	12.52	12.57	\$5.12	2.12	2.14	14.64	41.08	10.98	52.05	0.93	(2.55)	(4.44)	0.60	46.59	2.50	0.50	0.74	0.23	50.57	(1.04)	(0.32)	(6.22)	(0.46)	(7.63)	-	(1.93)	(4.10)	28.87	-	(1.43)	(0.03)	
2022	\$3.12	16.76	16.84	\$4.45	2.53	2.55	19.28	52.60	11.36	63.96	1.27	(1.90)	(3.32)	-	60.00	1.60	0.75	(0.23)	0.77	62.89	(1.61)	(0.56)	(4.75)	(0.47)	(4.40)	(0.12)	(1.84)	(5.86)	43.28	-	(1.64)	(0.03)	
2023	\$3.11	19.55	19.74	\$4.54	2.83	2.86	22.38	61.35	12.97	74.32	1.55	(2.36)	(3.15)	0.06	70.43	0.85	0.81	0.33	0.44	72.86	(1.86)	(0.70)	(5.44)	(0.74)	(4.41)	(0.54)	(2.82)	(7.22)	49.13	-	(0.07)	(0.78)	
2024	\$3.53	21.84	22.06	\$5.16	3.07	3.10	24.91	77.83	15.98	93.81	1.73	(2.94)	(3.69)	0.40	89.31	0.97	0.88	1.54	0.17	92.87	(2.37)	(0.76)	(5.36)	(0.76)	(5.13)	(1.11)	(2.36)	(7.40)	67.61	-	-	(2.74)	
2025	\$3.51	23.35	23.58	\$5.12	3.24	3.27	26.59	82.67	16.76	99.43	1.86	(3.10)	(4.13)	0.62	94.68	1.08	0.94	1.46	0.17	98.32	(2.50)	(0.83)	(5.43)	(0.81)	(5.13)	(0.99)	(2.36)	(7.58)	72.68	-	-	(2.74)	
2026	\$3.48	23.40	23.64	\$5.08	3.21	3.24	26.61	82.16	16.46	98.62	1.87	(3.07)	(4.06)	0.58	93.94	1.20	0.94	1.43	0.72	98.23	(2.49)	(0.84)	(5.63)	(0.82)	(5.14)	(0.97)	(2.42)	(7.77)	72.15	-	(0.86)	(2.44)	
2027	\$3.49	24.35	24.60	\$5.10	3.30	3.33	27.65	85.79	16.97	102.76	1.95	(3.18)	(4.17)	0.58	97.94	1.33	0.98	1.47	0.72	102.43	(2.59)	(0.89)	(5.88)	(0.82)	(5.26)	(0.95)	(2.48)	(7.97)	75.59	-	(4.32)	(0.47)	
2028	\$3.49	24.80	25.05	\$5.10	3.31	3.35	28.11	87.44	17.08	104.52	1.99	(3.23)	(4.21)	0.60	99.67	1.47	0.99	1.48	0.82	104.43	(2.64)	(0.92)	(5.92)	(0.86)	(5.32)	(0.94)	(2.54)	(8.17)	77.13	-	(3.20)	(0.10)	
2029	\$3.52	25.62	25.88	\$5.14	3.38	3.41	29.00	90.98	17.54	108.52	2.06	(3.34)	(4.31)	0.61	103.54	1.60	1.02	1.51	0.82	108.50	(2.74)	(0.96)	(6.06)	(0.88)	(5.40)	(0.88)	(2.61)	(8.37)	80.60	-	(2.86)	(9.95)	
2030	\$3.54	25.58	25.84	\$5.17	3.33	3.37	28.91	91.43	17.40	108.83	2.06	(3.34)	(4.28)	0.61	103.89	1.74	1.02	1.50	0.85	109.00	(2.75)	(0.98)	(5.99)	(0.90)	(5.40)	(0.84)	(2.67)	(8.58)	80.89	-	(5.88)	(0.10)	
2031	\$3.56	26.38	26.64	\$5.21	3.39	3.42	29.77	94.97	17.84	112.81	2.14	(3.44)	(4.39)	0.62	107.72	1.81	1.05	1.52	0.85	112.95	(2.85)	(1.02)	(6.15)	(0.92)	(5.59)	(0.86)	(2.74)	(8.79)	84.03	-	(0.06)	(38.90)	
2032	\$3.56	27.32	27.59	\$5.20	3.47	3.50	30.78	98.11	18.19	116.30	2.22	(3.54)	(4.51)	0.63	111.10	1.91	1.09	1.56	0.87	116.53	(2.94)	(1.07)	(6.38)	(0.94)	(5.88)	(0.89)	(2.81)	(9.04)	86.57	-	-	(0.11)	
2033	\$3.56	27.88	28.16	\$5.20	3.49	3.52	31.37	100.13	18.31	118.44	2.27	(3.59)	(4.54)	0.64	113.23	1.91	1.11	1.57	0.87	118.69	(2.99)	(1.11)	(6.96)	(0.97)	(6.35)	(1.02)	(2.88)	(9.27)	87.14	-	(0.55)	(0.33)	
2034	\$3.56	28.43	28.71	\$5.20	3.51	3.55	31.94	102.09	18.42	120.51	2.32	(3.64)	(4.57)	0.65	115.27	1.91	1.15	1.58	0.90	120.82	(3.05)	(1.15)	(7.17)	(0.99)	(6.61)	(1.05)	(2.95)	(9.50)	88.34	-	(1.09)	(10.79)	
2035	\$3.56	28.95	29.24	\$5.20	3.53	3.56	32.48	103.99	18.51	122.50	2.37	(3.69)	(4.60)	0.65	117.23	1.91	1.19	1.59	0.90	122.83	(3.10)	(1.19)	(7.38)	(1.02)	(6.84)	(1.08)	(3.02)	(9.74)	89.46	-	-	(0.59)	
2036	\$3.56	29.46	29.76	\$5.20	3.54	3.58	33.00	105.82	18.58	124.39	2.42	(3.73)	(4.62)	0.66	119.12	1.91	1.23	1.60	0.92	124.78	(3.15)	(1.23)	(7.60)	(1.04)	(7.13)	(1.11)	(3.10)	(9.98)	90.44	-	(0.47)	(10.75)	
2037	\$3.56	29.95	30.25	\$5.20	3.55	3.58	33.50	107.57	18.62	126.19	2.47	(3.77)	(4.64)	0.66	120.91	1.91	1.27	1.61	0.92	126.62	(3.20)	(1.27)	(7.81)	(1.07)	(7.35)	(1.14)	(3.18)	(10.23)	91.38	-	(4.27)	(0.36)	
2038	\$3.56	30.42	30.72	\$5.20	3.55	3.59	33.97	109.24	18.65	127.89	2.51	(3.81)	(4.65)	0.66	122.61	1.91	1.31	1.61	0.93	122.37	(3.24)	(1.31)	(8.02)	(1.12)	(7.56)	(1.17)	(3.26)	(10.49)	92.21	-	(4.12)	(0.12)	
2039	\$3.56	30.86	31.17	\$5.20	3.55	3.59	34.42	110.83	18.65	129.48	2.56	(3.84)	(4.66)	0.66	124.20	1.91	1.35	1.62	0.93	130.01	(3.28)	(1.35)	(8.23)	(1.14)	(7.84)	(1.20)	(3.34)	(10.75)	92.88	-	(3.84)	(12.46)	
2040	\$3.56	31.28	31.59	\$5.20	3.55	3.59	34.83	112.32	18.63	130.96	2.60	(3.87)	(4.66)	0.67	125.69	1.91	1.39	1.62	0.94	131.54	(3.32)	(1.39)	(8.44)	(1.17)	(8.05)	(1.23)	(3.42)	(11.02)	93.51	-	(9.07)	(0.13)	
2041	\$3.56	31.66	31.98	\$5.20	3.54	3.58	35.21	113.71	18.59	132.30	2.64	(3.90)	(4.66)	0.67	127.05	1.91	1.43	1.62	0.94	132.94	(3.36)	(1.43)	(8.65)	(1.20)	(8.35)	(1.26)	(3.51)	(11.29)	93.90	-	(1.35)	(21.23)	
2042	\$3.56	32.02	32.34	\$5.20	3.53	3.56	35.55	114.99	18.52	133.51	2.67	(3.92)	(4.65)	0.66	128.28	1.91	1.47	1.62	0.94	134.22	(3.39)	(1.47)	(8.86)	(1.23)	(8.58)	(1.29)	(3.59)	(11.58)	94.23	(15.94)	(0.04)	(0.14)	
2043	\$3.56	32.34	32.67	\$5.20	3.51	3.55	35.86	116.15	18.43	134.58	2.71	(3.94)	(4.63)	0.66	129.39	1.91	1.50	1.61	0.94	135.36	(3.42)	(1.50)	(9.06)	(1.26)	(8.81)	(1.32)	(3.68)	(11.87)	94.43	-	(15.94)	(0.08)	(0.42)
2044	\$3.56	32.64	32.96	\$5.20	3.49	3.52	36.13	117.20	18.32	135.52	2.74	(3.95)	(4.61)	0.66	130.36	1.91	1.54	1.61	0.94	136.36	(3.44)	(1.54)	(9.27)	(1.29)	(9.02)	(1.35)	(3.78)	(12.16)	94.51	(15.94)	-	(13.53)	
2045	\$3.56	3																															



## Appendix B: Toll Payment Activity Workflow

Exhibit 30: SR 520 Toll Transaction Activity Workflow — January 2023 Forecast (FY 2025)



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## Appendix C: List of Facility Maintenance Activities

**Exhibit 31: SR 520 Maintenance Categories and Activities**

Maintenance Activity	Unit of Measure
Pavement Patching, Repair & Crack Sealing	Lane Mile
Shoulder Maintenance	Shoulder Mile
Sweeping and Cleaning	Shoulder Mile
Maintain Ditches	Linear Feet of Ditch
Maintain Culverts	Each
Maintain Catch Basins and Inlets	Each
Maintain Detention/Retention Basins	Storm water Treatment Facility (Each)
Litter Pickup	Shoulder mile
Landscape Maintenance (3 yr plant establish)	Acres
Bridge Deck Repair	Square Feet of Bridge Deck
Structural Bridge Repair	Square Feet of Bridge Deck
Bridge Cleaning	Square Feet of Bridge Deck
Movable and Floating Bridge Operations	Bridges (Each)
Urban Tunnel Systems Operations	Urban Tunnel Systems (Each)
Snow and Ice Control Operations	Lane Mile
Pavement Striping Maintenance	Lane Mile
Raised/Recessed Pavement Marker Maintenance	
<i>Raised</i>	<i>Each</i>
Pavement Marking Maintenance	Each
Regulatory Sign Maintenance	Each
Guide Sign Maintenance	Each
Guardrail Maintenance	
<i>Concrete Barrier</i>	<i>Linear Feet of Concrete Barrier</i>
Highway Lighting Systems Operations	Each
Toll Equipment Power	Annual Lump Sum
Under-Lid Lighting Operations	Annual Lump Sum
Intelligent Transportation Systems Operations	
<i>Closed Circuit Television</i>	<i>Each</i>
<i>Variable Message/Changeable Sign</i>	<i>Each</i>
<i>Data Station System</i>	<i>Each</i>
3rd Party (unknown) Damages	Lane Mile
Wetland Mitigation Sites	Acres
ATM Sign Structures	Each
Static Sign Structures	Each
Noise Walls	Linear Feet
Fish Culverts	Each
Sidewalk	Linear Feet
Locates (all disciplines)	Each
Retaining Wall	Linear Feet