

CRC Tolling Update

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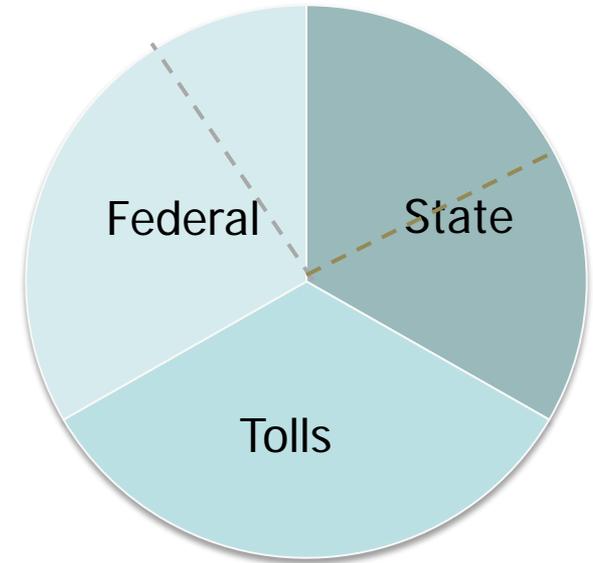
Washington State Transportation Commission
Tolling Team
May 23, 2013

Agenda

- Update on the February Preliminary Toll Revenue Estimates
- Approach to Legislative Budget Proviso Report
- Approach to July Refresh Report
- Next Steps

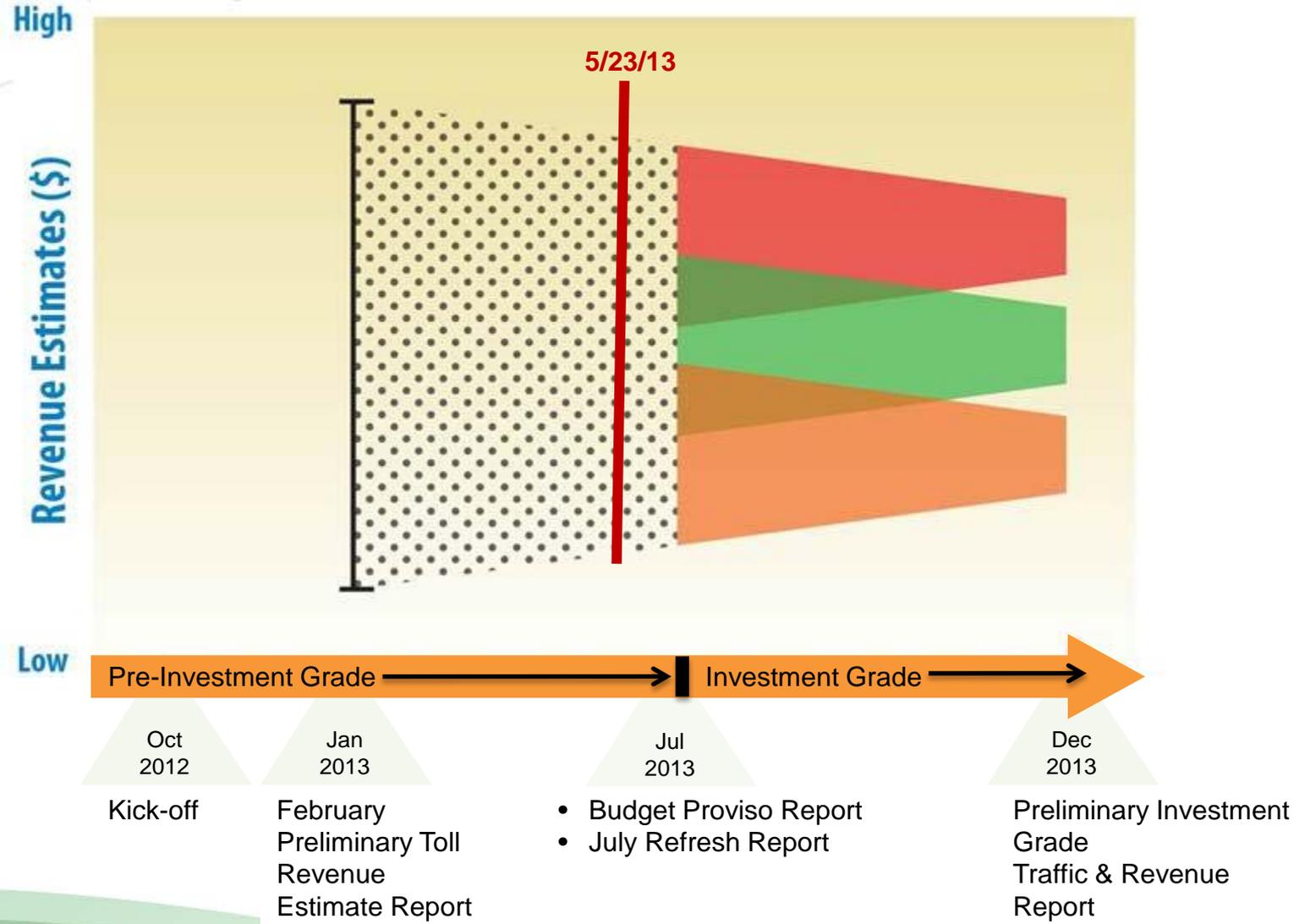
Costs and Funding for CRC

- **Federal funds**
 - Federal Transit Administration
 - Federal Highway Administration
- **Oregon and Washington**
- **Toll bond proceeds**



**Cost Estimate:
\$3.1 – 3.5 billion**

CRC Traffic and Revenue Analysis Timeline



Three Model Stages

Pre-Investment Grade

- **Stage 1 – Preliminary Planning Model – complete January 2013**
 - Used for February Preliminary Toll Revenue Estimate Report
- **Stage 2 – Refined Planning Model – complete May 2013**
 - Used for Legislative Budget Proviso Report and July Refresh Report

Investment Grade

- **Stage 3 – Investment Grade Model – to be complete July 2013**
 - Used for the Preliminary Investment Grade Report

Stage 1 Model Report

February Preliminary Toll Revenue Estimates

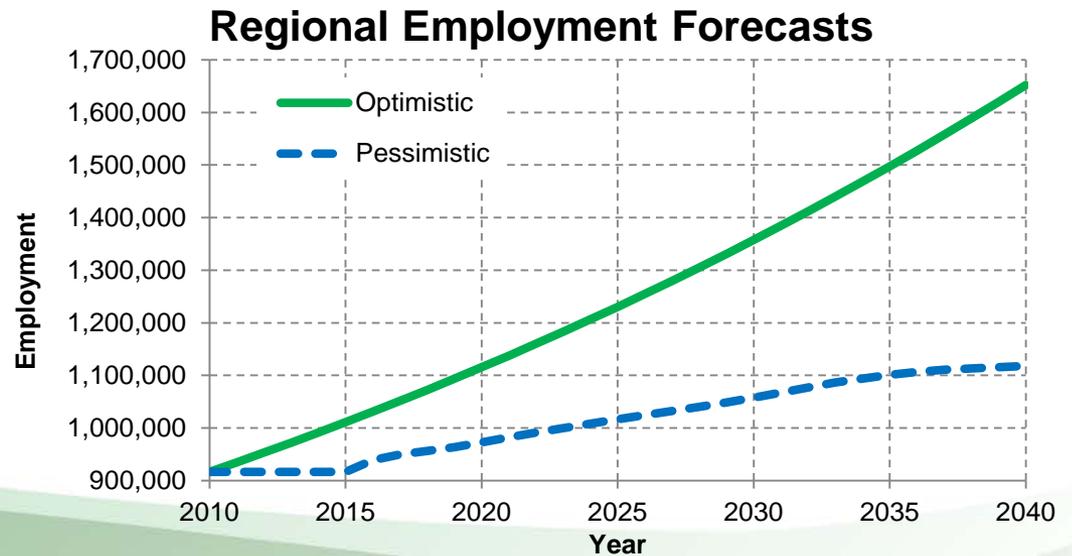
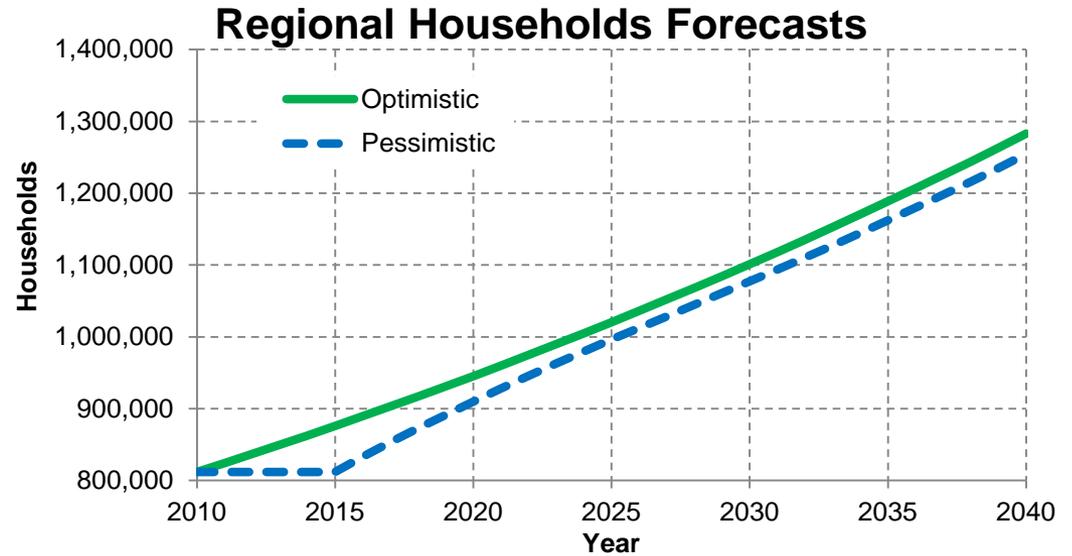
February Preliminary Toll Revenue Estimates

- Objectives:
 - Address requests from state legislatures
 - Establish a range of possible toll revenues
- Key assumptions
 - Same for all scenarios
 - Pre-completion Tolling assumed to start on July 1, 2015 (FY 2016)
 - Post-completion Tolling assumed to start on July 1, 2021 (FY 2022)
 - Account based payment using a transponder
 - “Pay By Mail” payment involves a higher toll increment
 - Physical project is the EIS Locally Preferred Alternative
 - Light rail extension assumed to open on September 1, 2019

Socioeconomic Forecasts

February Preliminary Toll Revenue Estimates

- Optimistic and pessimistic scenarios
- Based on Metro's and Moody's forecasts



Toll Rates

February Preliminary Toll Revenue Estimates

- Two toll rate schedules
 - Option A – Added Price Point
 - Max Auto Toll \$2.50 (FY2016) / \$3.62 (FY2022)
 - Option B – 1.5X Base Toll
 - Max Auto Toll \$2.50 (FY2016) / \$4.34 (FY2022)
- Pre-completion construction phase toll rates apply from July 2015 to June 2021
- Toll increment applied to Pay By Mail payment. Inflated to FY 22 in Scenarios 2 and 3, inflated to FY 36 in Scenarios 1 and 4
- Medium trucks (3 and 4 axles) pay 2 times the base 2-axle rate
- Heavy trucks (5 or more axles) pay 4 times the base 2-axle rate

Low and High Scenarios

February Preliminary Toll Revenue Estimates

| Assumption Type | Low Scenario (1) | High Scenario (4) |
|--------------------------------|--|--|
| Socioeconomic Forecasts | No Growth to FY 2016, then Moody's Alternative Low Forecast | Metro adopted LRTP forecast |
| Toll Rates | Option A (post completion peak passenger car toll \$3.62) | Option B (post completion peak passenger car toll \$4.34) |
| Surcharge | Inflation to FY 2036, no inflation after FY 2036 | Inflation to FY 2036, no inflation after FY 2036 |
| ETC Penetration | Model input 50% FY 2016 | Model input 70% FY 2016 |
| Value of Time | Peak passenger car \$12.00 per hour (FY 2011 dollars) | Peak passenger car \$18.00 per hour (FY 2011 dollars) |
| Vehicle Operating Cost | Passenger car \$0.18 per mile (FY 2011 dollars) | Passenger car \$0.20 per mile (FY 2011 dollars) |
| Trip Pattern Changes | High amount of downward adjustment | Very low amount of downward adjustment |
| Ramp Up | FY 2016: -5% FY 2017: -3% FY 2018: -1% FY 2022: -5% FY 2023: -3% | FY 2016: -3% FY 2017: -1% FY 2022: -5% FY 2023: -3% |

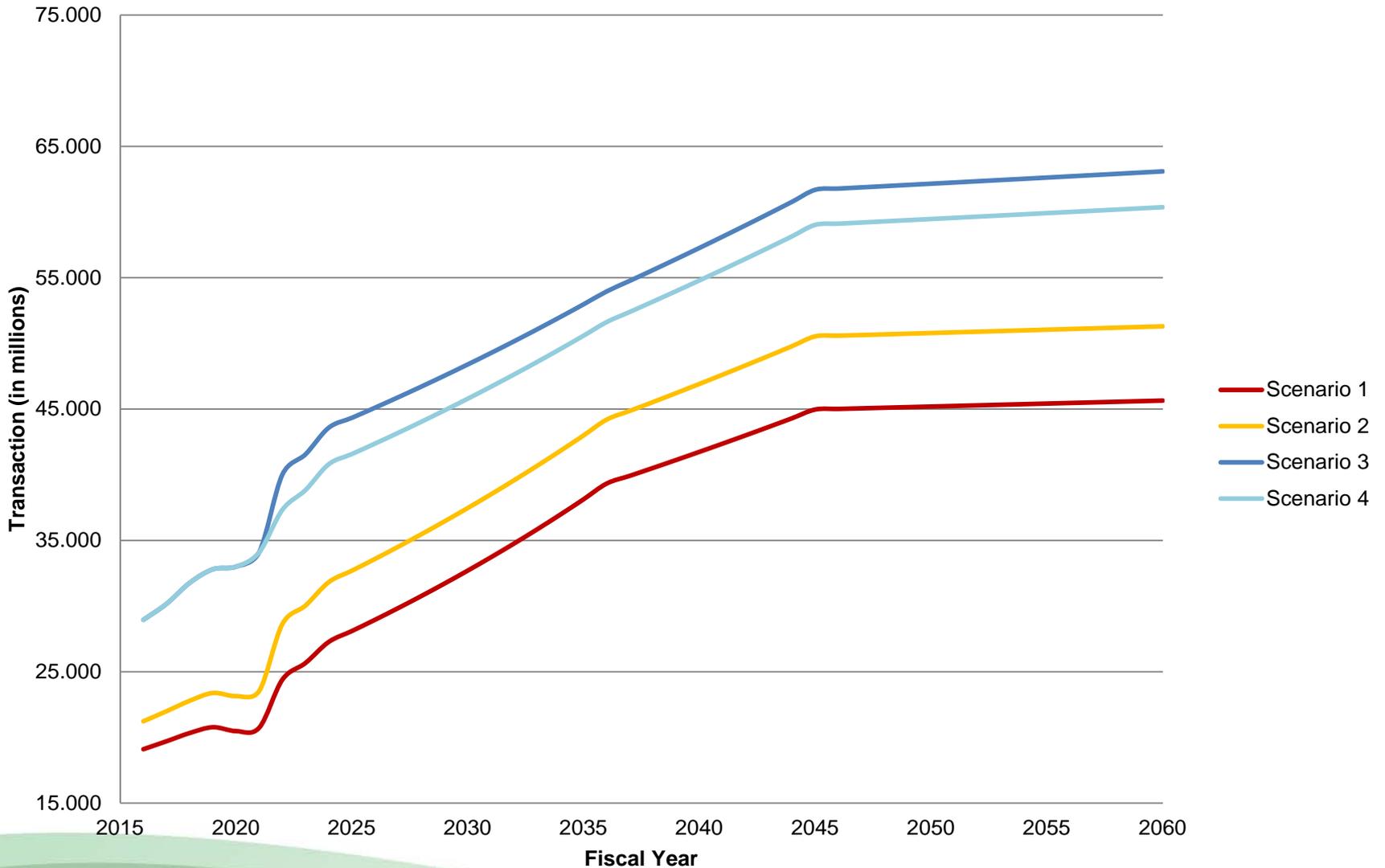
Mid Range Scenarios

February Preliminary Toll Revenue Estimates

| Assumption Type | Mid Range Scenario (2) | Mid Range Scenario (3) |
|--------------------------------|--|--|
| Socioeconomic Forecasts | Metro adopted LRTP forecast | Metro adopted LRTP forecast |
| Toll Rates | Option A (post completion peak passenger car toll \$3.62) | Option A (post completion peak passenger car toll \$3.62) |
| Surcharge | Inflation to FY 2022, no inflation after FY 2022 | Inflation to FY 2022, no inflation after FY 2022 |
| ETC Penetration | Model input 50% FY 2016 | Model input 70% FY 2016 |
| Value of Time | Peak passenger car \$14.00 per hour (FY 2011 dollars) | Peak passenger car \$18.00 per hour (FY 2011 dollars) |
| Vehicle Operating Cost | Passenger car \$0.18 per mile (FY 2011 dollars) | Passenger car \$0.20 per mile (FY 2011 dollars) |
| Trip Pattern Changes | Moderate amount of downward adjustment | Very low amount of downward adjustment |
| Ramp Up | FY 2016: -5% FY 2017: -3% FY 2018: -1% FY 2022: -5% FY 2023: -3% | FY 2016: -3% FY 2017: -1% FY 2022: -5% FY 2023: -3% |

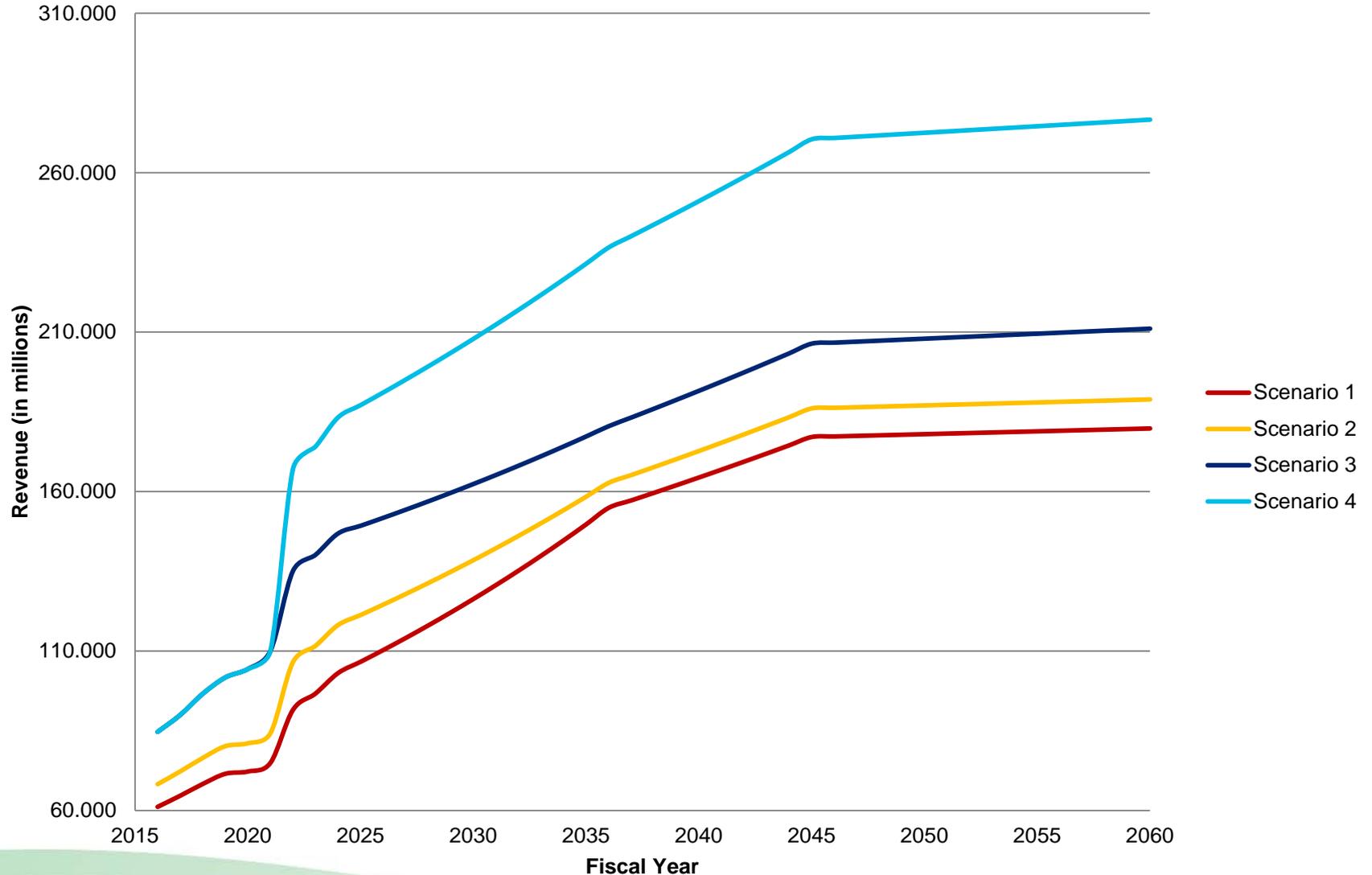
Gross Toll Transactions

February Preliminary Toll Revenue Estimates



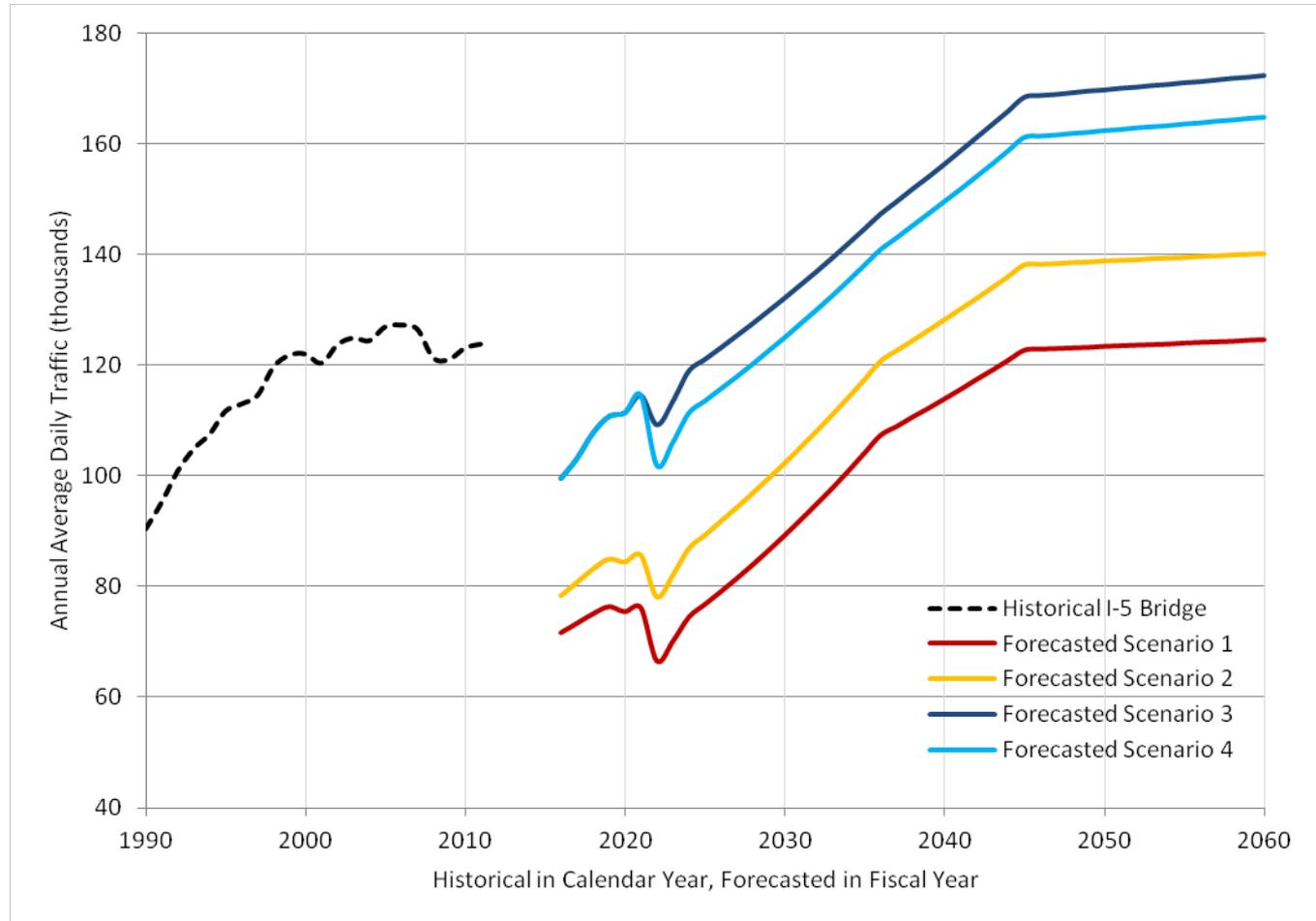
Gross Toll Revenue

February Preliminary Toll Revenue Estimates



Forecasted Annual Average Daily Traffic

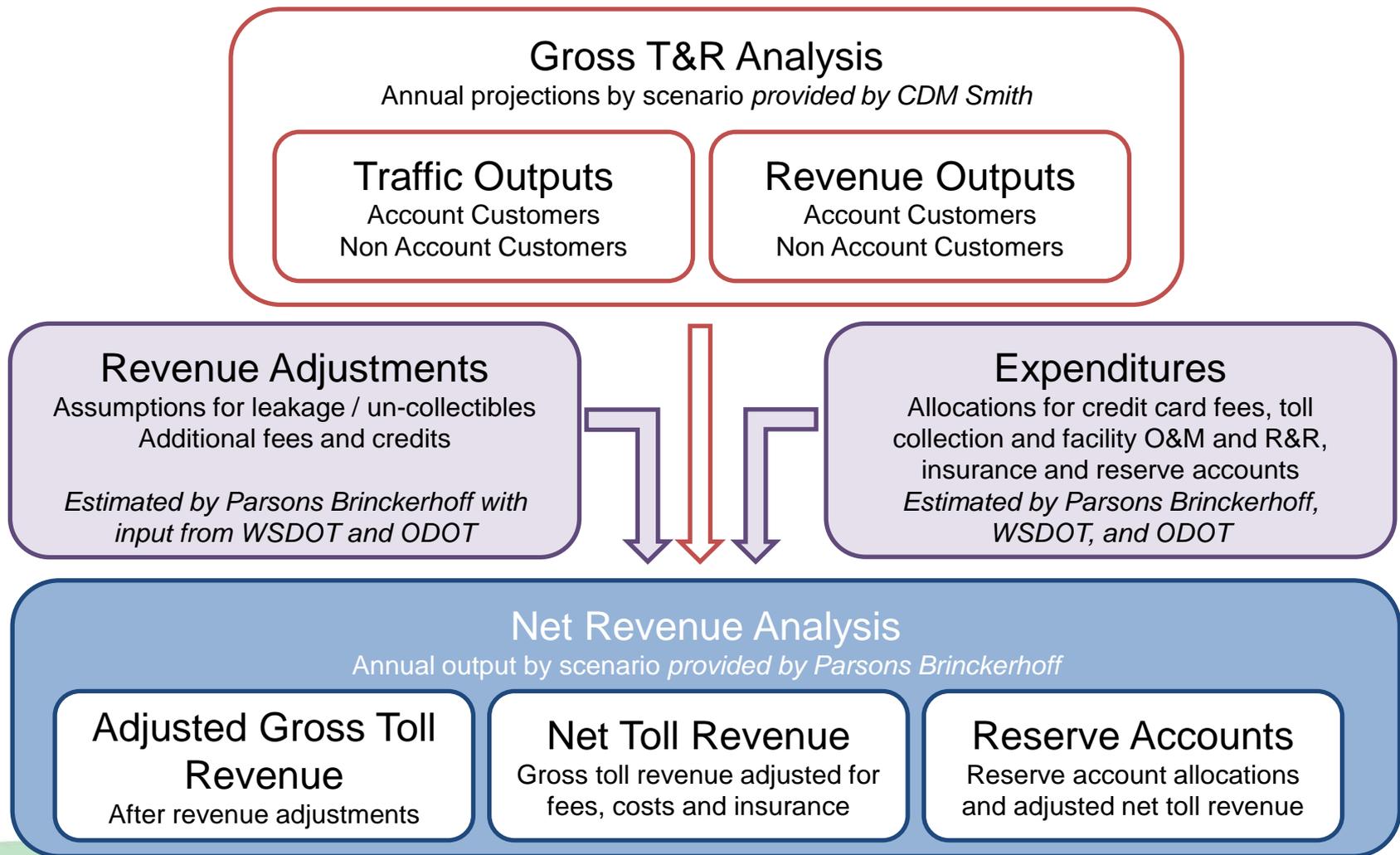
February Preliminary Toll Revenue Estimates



Historical from ODOT Summaries of Trends at Automatic Traffic Recorder Stations
Forecasted from CDM Smith Stage 1 T&R Analysis

Inputs and Outputs of Analysis

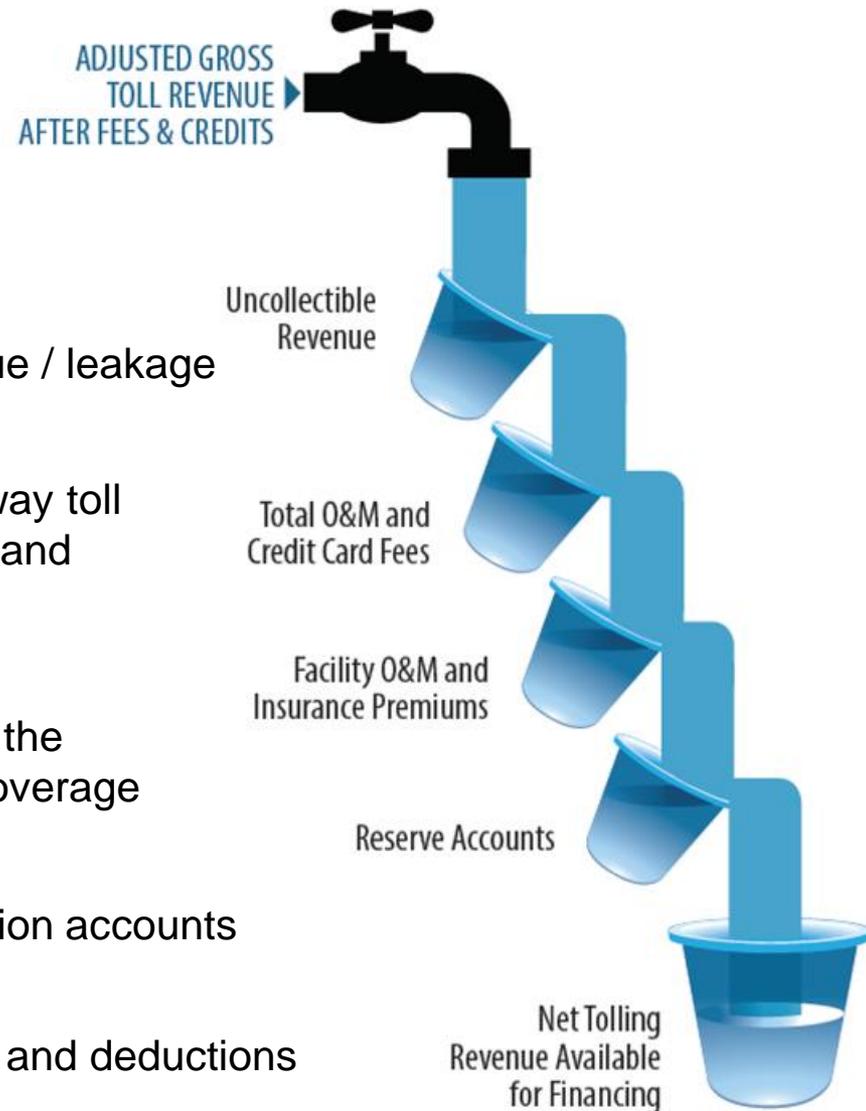
February Preliminary Toll Revenue Estimates



Net Revenue Process Overview

February Preliminary Toll Revenue Estimates

- **Adjusted gross toll revenue:**
Includes account (*Good To Go!*) and non-account (Pay By Mail) revenue after consideration of fees and credits
- **Uncollectible revenue:**
Adjustment to account for uncollectible revenue / leakage
- **Toll collection O&M and credit card fees:**
Includes customer service center costs, roadway toll system costs, state operations and oversight, and bank card processing fees
- **Facility O&M and insurance premiums:**
Routine annual costs to maintain and operate the physical facility, as well as bridge insurance coverage
- **Reserve accounts:**
Deposits to O&M, R&R and revenue stabilization accounts
- **Net toll revenue available for financing:**
Revenue to support capital after expenditures and deductions



Adjusted Gross Toll Revenues

February Preliminary Toll Revenue Estimates

- Annual gross toll traffic & revenue are provided by CDM Smith
 - Gross toll transactions by payment method
 - Average revenue per transaction
 - Gross toll revenue from *Good To Go!* account holders
 - Gross toll revenue from Pay By Mail users, inclusive of toll increment
- Adjusted gross toll revenue incorporates adjustments for the following fees and credits plus uncollectibles
 - Pay By Plate fee of \$0.25 for *Good To Go!* photo toll transactions
 - Rebilling fee of \$5.00 for issuing a second toll bill
 - Customer discount, \$0.50 credit, for short term accounts

Uncollectible Revenue

February Preliminary Toll Revenue Estimates

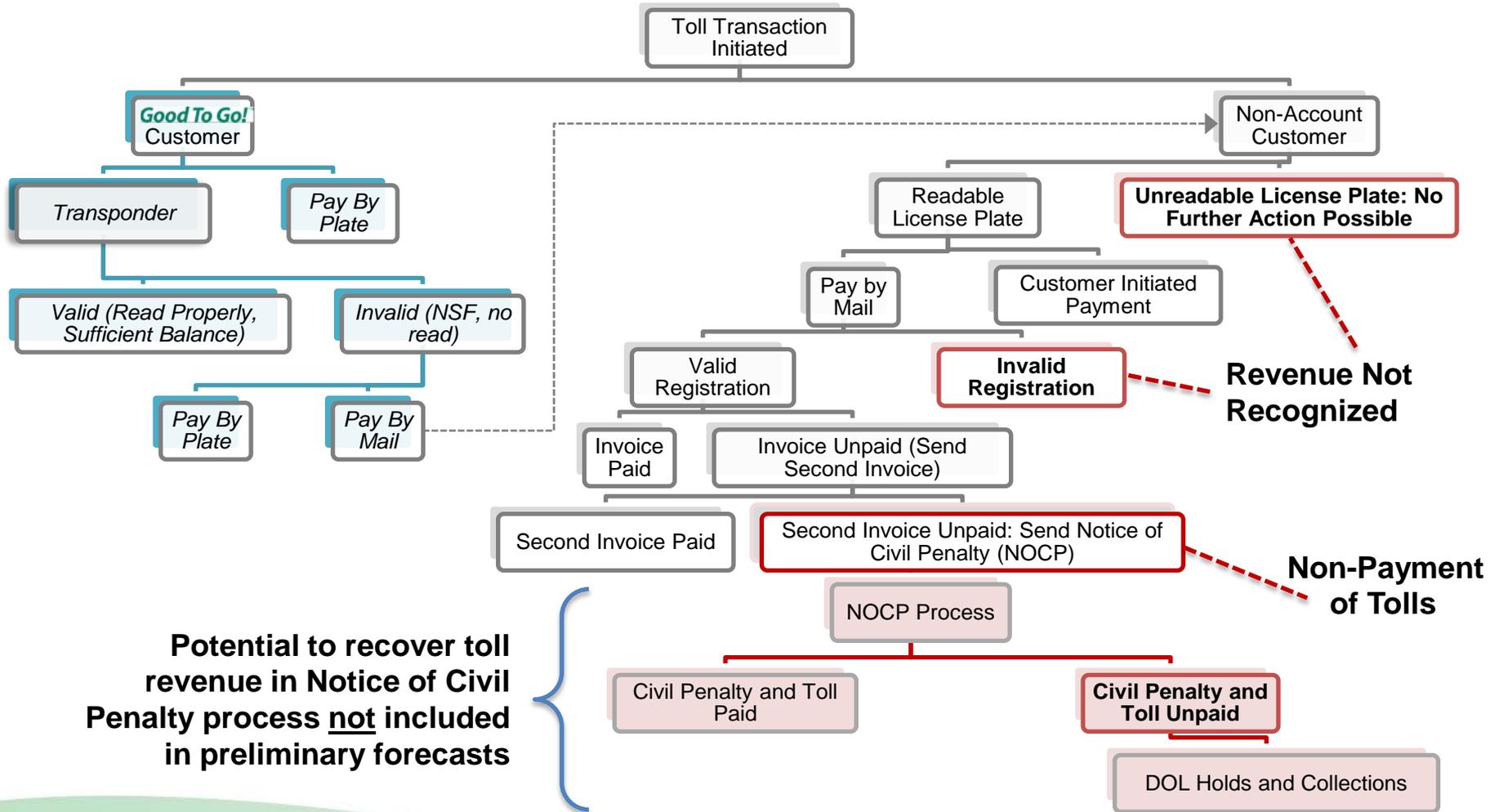
- Revenue not recognized
 - Unreadable transponder / license plate
 - Lane equipment error or failure
 - Incorrectly installed transponder
 - Bad or obstructed license plate image
 - Inability to identify vehicle owner
 - Diplomatic or certain license plates from out of region states
 - Temporary plates
- Non-payment of tolls
 - No payment after second invoice / scofflaw behavior
 - Primarily attributable to customers that chose Pay By Mail



Assumptions based on data from existing WSDOT and other all-electronic U.S. toll facilities, and account for different customer payment types

Toll Collection Activity Workflow

February Preliminary Toll Revenue Estimates



Potential to recover toll revenue in Notice of Civil Penalty process not included in preliminary forecasts

Toll Collection O&M and Credit Card Fees

February Preliminary Toll Revenue Estimates

- Credit card and banking fees
 - Rate charged by WSDOT's credit card processing vendor, applied to transactions paid for by credit card
- One-time marketing & start-up costs, FY 2015 only
- Routine toll collection O&M costs
 - Customer service center functions include toll transaction processing, revenue collection, and customer interface operations
 - Roadway toll systems costs contain operations and maintenance of lane-system equipment, including cameras and readers
 - State operations include accounting, marketing, and management staff, as well as Pay By Mail printing and postage

Special considerations made for the bi-state nature of the project include additional phone services and walk-in centers. Other costs such as enforcement are still under review, and preliminary estimates will be subject to change and refinement.

Facility O&M and Insurance Premiums

February Preliminary Toll Revenue Estimates



- Routine facility O&M costs
 - Road maintenance: pavement repair, mowing, snow removal, striping, litter pickup, etc.
 - Incidence response vehicles and system
 - Estimated by WSDOT for other corridors using actual Maintenance Accountability Program (MAP) activities and costs for existing corridors
- Business interruption/physical asset insurance
 - Business interruption insurance covering loss of revenue during extended facility closures
 - Physical asset insurance covering damage to roadway, structures, or other physical elements that might cause closures within the specifically defined risks



For corridors with toll financing, toll revenues are generally assumed to fund facility O&M costs and insurance for the priced portion of the roadway.

Reserve Account Deposits

February Preliminary Toll Revenue Estimates

- Revenue stabilization account
 - Deposits or refunds made to maintain minimum required account balance
- O&M reserve account
 - Deposits or refunds made to maintain minimum required account balance for credit card fees, toll collection O&M costs, facility O&M costs, and bridge insurance premium
- R&R reserve account
 - Deposits made to maintain minimum required account balance for tolling and facility R&R costs
 - Roadway toll systems R&R costs includes replacement of toll collection equipment (cameras, antennas, etc.)
 - Facility R&R costs includes major items such as periodic re-paving and variable message sign replacement

General Cost Categories

February Preliminary Toll Revenue Estimates

CRC-Specific Costs

- Uncollectible accounts / revenue leakage
- Toll collection O&M
 - Roadway toll systems O&M and R&R
 - Customer service center costs unique to CRC
- Facility / roadway O&M and R&R
- Bridge insurance

System-Wide Costs

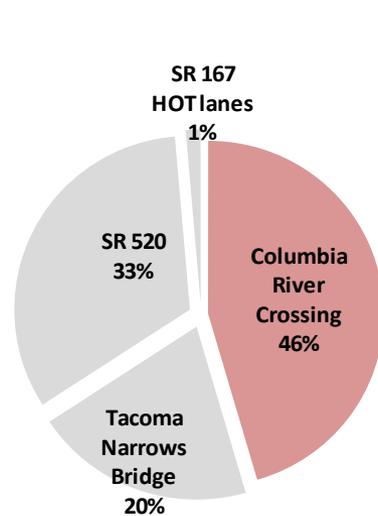
- Toll collection O&M
 - Customer service center
 - State operations
 - Credit card / banking fees
- Allocated by facility
 - Costs estimated on a per-unit basis and allocated using transaction volumes
 - Toll revenues determine allocation of credit card fees

This is not a comprehensive list - more work will be forthcoming to identify other specific/CRC unique costs, such as auditing and accounting interfaces for Oregon, etc.

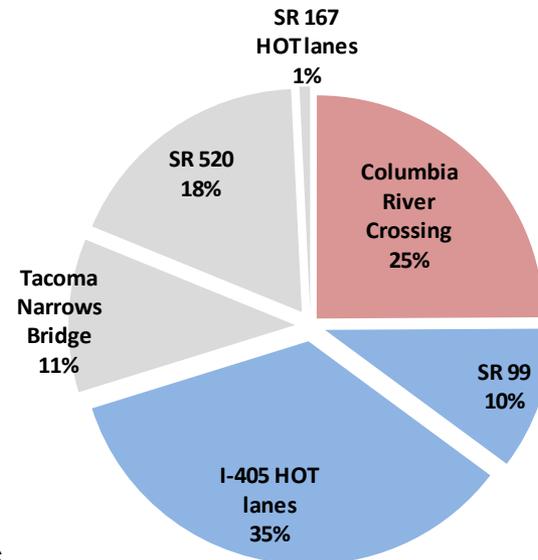
Allocation of Shared Costs

February Preliminary Toll Revenue Estimates

- Certain costs, including the statewide CSC vendor contract, are shared across all WSDOT toll facilities
- Total system costs and the allocation to each facility will vary depending on the number of facilities in the system



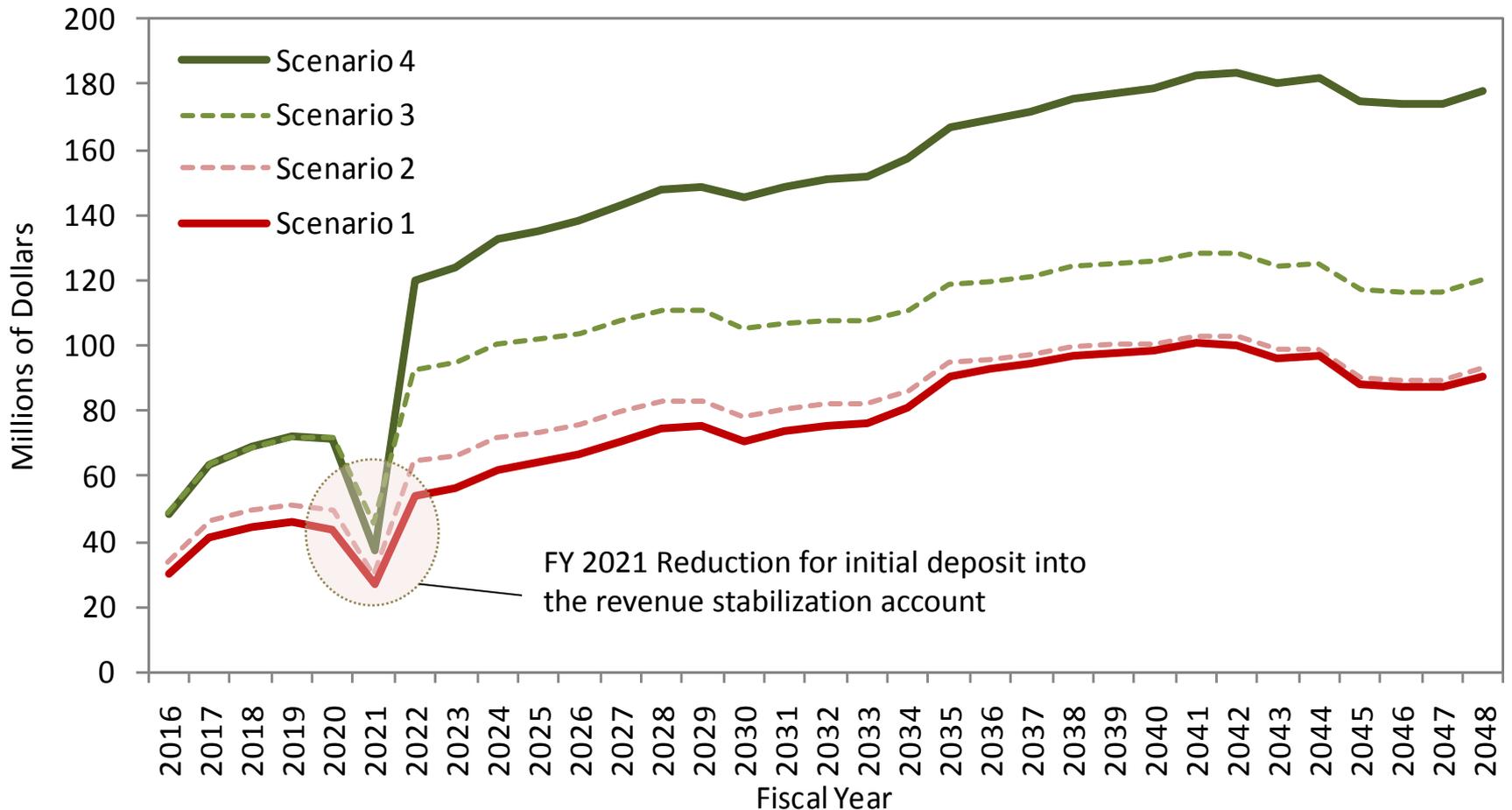
Cost share for existing facilities plus CRC
Basis for costs in February analysis



Cost share for existing facilities plus all legislatively authorized

Preliminary Net Toll Revenue Results

February Preliminary Toll Revenue Estimates



Net toll revenue after reserve deposits: FY 2015-48

Capital Funding Capacity of Net Toll Revenue

February Preliminary Toll Revenue Estimates

Funding capacity in Billions \$

| | State-Backed Toll Bonds | TIFIA Loan and Toll Revenue Bonds |
|------------|--------------------------------|--|
| Scenario 1 | \$1.07 | \$1.21 |
| Scenario 2 | \$1.18 | \$1.36 |
| Scenario 3 | \$1.55 | \$1.75 |
| Scenario 4 | \$1.92 | \$2.07 |

Source: PRAG February 2013

Stage 2 Model Reports

Legislative Budget Proviso Report July Refresh Report

Planning Model Refinement

Pre-Investment Grade

Stage 1 – Preliminary Planning Model – complete January 2013

Used for February Preliminary Toll Revenue Estimate Report

Stage 2 – Refined Planning Model – complete May 2013

Used for Legislative Budget Proviso Report and July Refresh Report

New traffic counts and survey results

Detailed economic forecasts and refined truck forecasting

Preliminary toll policy assumptions

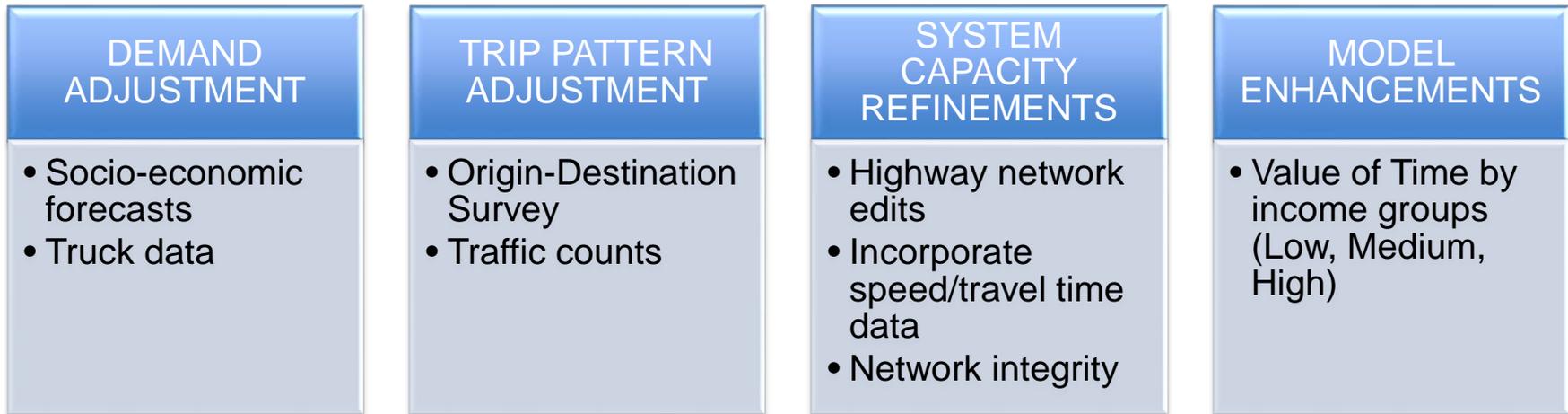
Investment Grade

Stage 3 – Investment Grade Model – to be complete July 2013

Used for the Preliminary Investment Grade Report

Stage 2 Model Enhancements

Refined Planning Model



Product:

- Legislative Budget Proviso Report
- Will still have a “range” forecast but is expected to be tighter and within the January “range” forecast
- July Refresh Report

WA State Legislative FY 11-13 Supplemental Budget Report

Refined Planning Model

“the department shall conduct a traffic and revenue analysis for the Columbia river crossing project that will lay the foundation for investment grade traffic and revenue analysis. While conducting the analysis, the department must coordinate with the Oregon department of transportation, the Washington state transportation commission, and the Washington state legislative oversight committee.

(a) The department's analysis must include the assessment and review of the following variables within the project:

- (i) Exemptions from tolls for vehicles with two or more occupants;
- (ii) A variable toll where the tolls vary by time of day and day of the week; and
- (iii) A frequency-based toll rate for the facility.

(b) The analysis must also assess the following:

- (i) The impact that light rail service in the corridor will have on estimated toll revenues;
- (ii) The level of diversion from the Interstate 5 corridor and the impact on estimated toll revenues; and
- (iii) The estimated toll revenues from vehicle trips originating within the region and outside the region by vehicle type.

(c) The department must submit a report of findings to the transportation committees of the legislature by July 1, 2013.”

Scenarios

Refined Planning Model

| Scenario | Description |
|----------|---|
| 1 | Tolling - High Case |
| 2 | Tolling - Low Case |
| 3 | No Tolling* - High Case |
| 4 | No Tolling* - Low Case |
| 5 | Tolling - High Case with HOV 2+ Exemption |
| 6 | Tolling - Low Case with HOV 2+ Exemption |
| 7 | Tolling - High Case with Frequency Discount |
| 8 | Tolling - Low Case with Frequency Discount |

*No Toll Scenarios are being analyzed for comparison purposes only

July Refresh Report

Refined Planning Model

- Update on funding capacity of toll revenues
- Four to five scenarios:
 - Low and High (same as Legislative Budget Proviso Report)
 - Two to three mid-range scenarios
- Borrowing capacity analysis based upon net revenue stream from gross revenue

Investment Grade Model

Pre-Investment Grade

Stage 1 – Preliminary Planning Model – complete January 2013

Used for February Preliminary Toll Revenue Estimate Report

Stage 2 – Refined Planning Model – complete May 2013

Used for Legislative Budget Proviso Report and July Refresh Report

Investment Grade

Stage 3 – to be complete July 2013

Further model refinements to meet Investment Grade standards

Scenario testing for Policy and Toll Rate Selection

Used to produce Investment Grade Traffic and Revenue estimates

Sensitivity tests

Next Steps

- Complete July reports (Stage 2 model)
- Investment grade analysis and report (Stage 3 model)
 - Rate assumptions development
 - Bi-State Tolling Subcommittee
 - State Transportation Commissions
 - Analysis this fall
 - Report in December

Next Step: Bi-State Tolling Subcommittee Meetings

Rate selection questions

- Should we assume pre-completion tolling starting July 1, 2015?
 - Hours from 5:00 am to 8:00 pm?
- Should we assume post-completion tolling starting July 1, 2021?
- Should we assume variable tolling?
- What should be the assumed toll rate for the base mode?
 - Stay with EIS rates of \$1.87 to \$2.50 for passenger vehicles?
 - Do we do the nickel rounding?
- Should we assume escalation of the toll rate?
- Should we assume *GoodToGo!* Pass rate and a separate Pay By Mail rate?
- What should we assume is the multiplier for commercial vehicles?
- What should be assumed for commercial vehicle basis? (i.e., should the *Pay By Mail* increment be multiplied by axles/size of vehicle?)

Questions?

For more information on Washington State Tolling,
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