

# **Transportation 2035 Financial Assumptions & Cost Review / Risk Assessment**

**Partnership Board Meeting  
September 26, 2007**



METROPOLITAN TRANSPORTATION COMMISSION

# Schedule

<b>Revenue Projections</b>	<b>Cost Review &amp; Risk Assessment</b>
<b><u>June-September 2007</u> – Develop financial projection assumptions</b>	<b><u>January-February 2008</u> – Initiate cost review &amp; risk assessment</b>
<b><u>Late 2007 / Early 2007</u> – Prepare preliminary draft projections</b>	<b><u>February – March 2008</u> Identify risk level and appropriate contingency</b>
<b><u>March 2008</u> – Release final projections</b>	<b><u>March 2008</u> Complete cost review and risk assessment</b>

# General Assumptions

- **Time Span** – FY 2008-09 through FY 2032-33
- **Dollar Values** – Revenue and costs are required by federal regulation to be in “year of expenditure dollars”.
- **Inflation** – 3% CPI assumed for revenue projections  
Cost escalation factors TBD
- **Existing Revenue Sources** – Only sources that are currently or statutorily scheduled within the RTP period will be considered for the constrained portion of the Plan

# What's New for Transportation 2035?

- **Escalated dollars instead of constant – revenue projections will look much larger... but so will costs**
- **Less conservative revenue projections – based on retrospective analysis of past RTP projections**
- **More flexibility in “Vision” revenues – will build in increment for unanticipated revenues that are not tied to specific expenditure categories**
- **Focus on project cost review and risk – major capital projects will be subject to cost review and risk assessment**

# Revenue Projections

# Revenue Sources

- More than 70% of RTP revenue is generated from local sources

Revenue Source	T2030 Baseline Revenue (In Billions - 2004\$s)	% Share of Total RTP Revenue
1/2 Cent Sales Tax	\$ 19.4	16.4%
LS&R Revenue	\$ 17.7	15.0%
Transit Fare Revenues	\$ 15.1	12.8%
TDA	\$ 9.6	8.1%
AB 1107	\$ 8.1	6.9%
Other Local Taxes	\$ 7.8	6.6%
BATA Toll Revenues	\$ 7.1	6.0%
5307 -- Urbanized Areas	\$ 4.6	3.9%
RTIP	\$ 4.6	3.9%
SHOPP	\$ 4.2	3.5%
STP/CMAQ	\$ 2.8	2.4%
5309 -- Fixed Guideway	\$ 2.7	2.3%
Prop 42 LS&R	\$ 2.6	2.2%
STA	\$ 2.1	1.8%
ITIP	\$ 1.9	1.6%
All Other Revenues	\$ 7.7	6.6%
<b>Total</b>	<b>\$ 117.9</b>	<b>100.0%</b>

# Who's In Charge?

- **Forecasts and major assumptions are often provided by local, county and state agencies or transit operators**

<b>MTC</b>	<b>State</b>	<b>CMA/TAs</b>	<b>Transit Operators</b>	<b>Local Jurisdictions</b>
<ul style="list-style-type: none"> <li>■ <b>TDA</b></li> <li>■ <b>AB1107</b></li> <li>■ <b>STA</b></li> <li>■ <b>Proposition 42</b></li> <li>■ <b>STP / CMAQ</b></li> <li>■ <b>FTA Formula</b></li> <li>■ <b>Toll Revenues</b></li> </ul>	<ul style="list-style-type: none"> <li>■ <b>RTIP</b></li> <li>■ <b>SHOPP</b></li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Sales Tax Measures</b></li> <li>■ <b>Developer Fees</b></li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Fare Revenue Measures</b></li> <li>■ <b>Property Tax Measures</b></li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Local revenues for street and road maintenance</b></li> </ul>

- **MTC is responsible for developing projections for less than half of the total RTP revenue**

# Retrospective Analysis

- Overall, MTC financial projections in past RTPs have been on the conservative side
- More realistic revenue projections will allow for a more robust set of projects

Projections Compared to Actual Revenue

RTP YEAR:	1998	2001	2005
Compared to Actual	Low	FTA STA STP/CMAQ RTIP	FTA STP/CMAQ STA STP/CMAQ RTIP
	On Target		STP/CMAQ TDA
	High	TDA	TDA STA

# Retrospective Analysis

- **“Unanticipated” revenue sources have contributed roughly \$413 million in additional revenue (2007 dollars) per year for the Bay Area over a 15 year period**

Unanticipated Revenue Sources Fiscal Years 1998 - 2012 (In Billions)

<b>New Money</b>	<b>15-Year Total</b>	<b>Annualized (2007 Dollars)</b>
TCRP	\$ 1,690	\$ 113
Proposition 42	\$ 1,836	\$ 122
Proposition 1B	\$ 2,638	\$ 176
Spillover	\$ 122	\$ 8
<b>Total</b>	<b>\$ 6,285</b>	<b>\$ 413</b>

# Projection Alternatives – TDA

- **TDA revenue projections are sensitive to assumptions about the base-year to be used**
- **T2030 assumed a 6% nominal growth rate and the projection was very close to actual revenue generated between FY 2005 – FY 2007**

Alternative Assumptions for Regional 25-Year TDA Revenue Projections

	<b>Low:</b>	<b>Medium:</b>	<b>High:</b>
<b>Growth</b>	5-Year Historical Average by County (5% overall)	6% Average Annual Growth	6% Average Annual Growth
<b>Base Year</b>	Latest Fiscal Year	5-Year Historical Average in 2008 Dollars	Latest Fiscal Year
<b>Approx. 25-Year Regional Revenue</b>	<b>\$14.6 Billion</b>	<b>\$16.9 Billion</b>	<b>\$17.9 Billion</b>
<i>T2030 25-Year Revenue Estimate in Escalated Dollars: \$15.9 Billion</i>			

- **Recommendation: Medium Alternative**

# Projection Alternatives – Fuel Based Revenue Sources

- Assumptions on fuel price and consumption levels will come from the California Legislative Analyst’s Office (LAO)

Alternative Statewide Levels of Gas/Diesel Sales Tax Based Revenues (25-Years)

	<b>Low:</b> <u>Price Growth:</u> <ul style="list-style-type: none"> <li>• 5% reduction from the current price of gas beginning in 2007</li> <li>• 2007 – 2011 = 1%</li> <li>• 2012 – 2017 = 5.5%</li> <li>• 2018 – 2033 = 3% (equal to inflation)</li> </ul> <u>Consumption</u> = 0%	<b>Medium:</b> <u>Price Growth:</u> <ul style="list-style-type: none"> <li>• 5% reduction from the current price of gas beginning in 2007</li> <li>• 2007 – 2011 = 1%</li> <li>• 2012 – 2017 = 5.5%</li> <li>• 2018 – 2033 = 3.5%</li> </ul> <u>Consumption</u> = 1.2%	<b>High:</b> <u>Price Growth:</u> Gas prices continue to rise at 20-year historical level of 5.5% <u>Consumption:</u> Slow annual consumption growth of .2% as a result of high fuel prices
STA Base	<b>\$7.2 Billion</b>	<b>\$8.8 Billion</b>	<b>\$9.1 Billion</b>
Prop 42	<b>\$58 Billion</b>	<b>\$66 Billion</b>	<b>\$73 Billion</b>
<i>Spillover*</i>	<i>\$14 Billion</i>	<i>\$25 Billion</i>	<i>\$43 Billion</i>
<b><i>T2030 25-Year Statewide STA Base Revenue Estimate in Escalated Dollars: \$4.66 Billion</i></b>			
<b><i>T2030 25-Year Statewide Prop 42 Revenue Estimate in Escalated Dollars: \$50 Billion</i></b>			

\*Spillover revenues would not be included as part of the baseline revenue projections but may be considered as part of the “vision” element

- **Recommendation: Medium Alternative**

# Projection Alternatives – Federal Funds

- **RTP assumptions could be updated as more is known about the new federal transportation act**

Alternative Regional Apportionment Estimates of Federal Funding (25-Years)

	STP/CMAQ	FTA FORMULA PROGRAM
<b>Low:</b>	Base Year: FY 08/09 Authorization Growth Rate: 3% Approximate 25-Year Regional Totals: <b>STP = \$3.1 B</b> <b>CMAQ = \$2.7B</b>	Base Year: FY 08/09 Authorization Growth Rate: 3% Approximate 25-Year Regional Totals: <b>5307 = \$8.1 B</b> <b>5309 = \$4.7B</b>
<b>Medium:</b>	Base Year: FY 08/09 Authorization Growth Rate: 4% Approximate 25-Year Regional Totals: <b>STP = \$3.6 B</b> <b>CMAQ = \$3.0 B</b>	Base Year: FY 08/09 Authorization Growth Rate: 4% Approximate 25-Year Regional Totals: <b>5307 = \$9.3 B</b> <b>5309 = \$5.4B</b>
<b>High:</b>	Base Year: 08/09 Authorization Growth Rate: 6% Approximate 25-Year Regional Totals: <b>STP = \$4.7 B</b> <b>CMAQ = \$4.0 B</b>	Base Year: FY 08/09 Authorization Growth Rate: 6% Approximate 25-Year Regional Totals: <b>5307 = \$12.2 B</b> <b>5309 = \$7.1 B</b>
<b>T2030 Estimate (Escalated)</b>	<b>STP = \$2.5B</b> <b>CMAQ = \$2.2B</b>	<b>5307 = \$7.7 B</b> <b>5309 = \$4.4 B</b>

- **Recommendation: Medium Alternative**

# New Revenues

- **Vision / Advocacy revenue in past RTPs have been tied to specific expenditure categories**
  
- **For Transportation 2035, we are considering new approaches as follows:**
  - Flexible “Unanticipated” Revenue: Delta between “High” and “Medium” projection (roughly \$9.4 Billion)
  - Extension and new sales tax measures (\$ TBD)
  - Bridge Tolls (\$ TBD)
  - Pricing Strategies (\$ TBD)
  
- **Some new revenue would be designated for specific purposes but much of the potential new revenue would be flexible**

# Cost Review & Risk Assessment

# Approach to Cost Review & Risk Assessment

- **SAFETEA requires revenue and cost estimates to use escalated rates to reflect year of expenditure dollars**
- **Review all capital projects**
- **Focus on projects greater than \$300 million (escalated)**

T2030 2004 Dollars  
(Excludes Maintenance Projects)

Cost (M\$)	# of Projects
up to \$100	269
\$101 to \$200	16
\$201 to \$400	26
\$401 to \$500	5
\$501 to \$700	5

**\*For Transportation 2030, projects over \$200 million (\$ 2004) represented 54% of costs but only 7% of the projects**

# Approach to Cost Review & Risk Assessment

## ■ Collect basic cost & project phase information

- Project type & scope
- Total Capital Cost (2006\$)
- Breakdown of capital cost by project phase (environmental, design, ROW, & construction)
- Schedule (begin/end milestones per project phase)
- Contingencies (if included in project phase)
- Escalation rate (if used)

## ■ Validate project information and escalate costs

- Validate project information for completeness and accuracy
- Apply standard methodology to escalate costs
  - Use existing cost estimates if provided
  - Choose a standard escalation rate for the remaining projects

# Approach to Cost Review & Risk Assessment

## ■ **Apply risk model to determine appropriate contingency**

- Review project cost and development information to identify level of risk for each project using a probabilistic model
- Highest risk project to be further assessed on a case by case basis
- Determine appropriate risk contingency by program, by county

## ■ **Policy Question:**

**What is the acceptable risk level for the RTP?**