

AIR QUALITY CONFORMITY ASSESSMENT  
of the  
2011 Constrained Long Range Plan (CLRP)

Item XX

Transportation Planning Board

October 19, 2011

# TECHNICAL APPROACH

- ❖ Version 2.3 Travel Demand Model- **NEW!**
- ❖ 3722 TAZ Area System- **NEW!**
- ❖ Round 8.0a Cooperative Forecasts- **NEW!**
- ❖ Mobile 6.2 Emissions Model
- ❖ 2008 Vehicle Registration Data
- ❖ 2002, 2016, 2020, 2030, 2040 Analysis Years



# Version 2.3 Travel Demand Model

## CALIBRATED USING:

- ❖ 2007/2008 Household Interview Survey
- ❖ On-board Transit Surveys
- ❖ 2007 HPMS Traffic Count Data
- ❖ INRIX Highway Speed Data

# RESULTS

## TRAVEL DEMAND

Transit Trips, Vehicle Trips, and VMT Increase Through Time  
(millions)

	<u>2002</u>	<u>2016</u>	<u>2020</u>	<u>2030</u>	<u>2040</u>
<b>Transit Trips</b>	1.2	1.3	1.4	1.5	1.6
<b>Vehicle Trips</b>	14.9	17.6	18.4	20.2	21.4
<b>VMT</b>	150.7	178.7	186.4	203.9	219.2



# RESULTS

## EMISSIONS CRITERIA:

Ozone Season Pollutants (VOC and NO<sub>x</sub>):

- ❖ Must not exceed 8-hour ozone 2008 RFP mobile budgets

Fine Particles Pollutants (Precursor Nox & Direct PM<sub>2.5</sub>):

- ❖ Must be less than 2002 base levels

Wintertime CO:

- ❖ Must not exceed approved budget



# RESULTS

## EMISSIONS

Dramatic Reductions Through Time Due To:

- ❖ Tier II Vehicle Standards
- ❖ Cleaner Fuels
- ❖ Heavy Duty Engine Rule

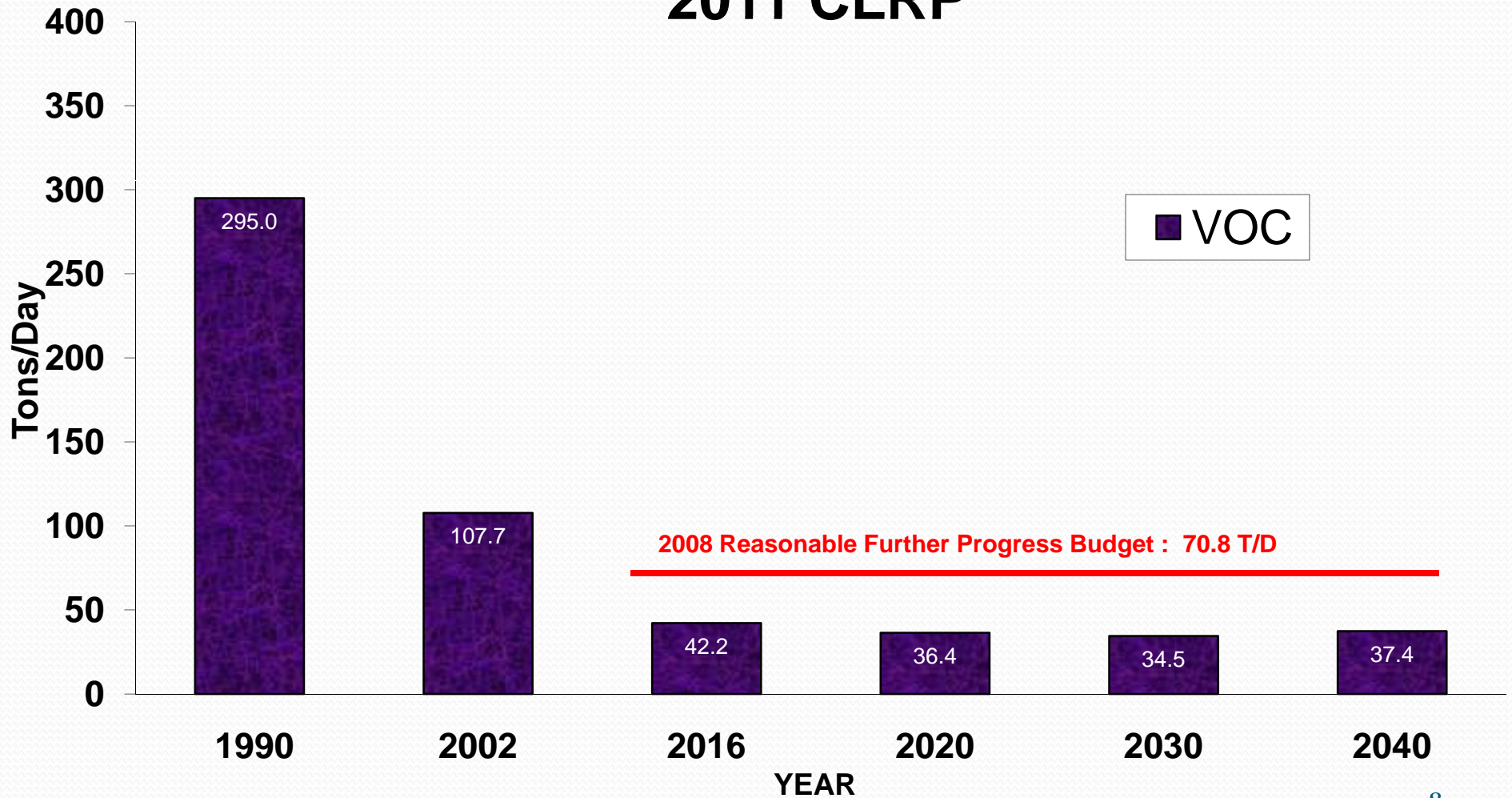
...but by 2040, emissions start to increase again

# RESULTS

## EMISSIONS

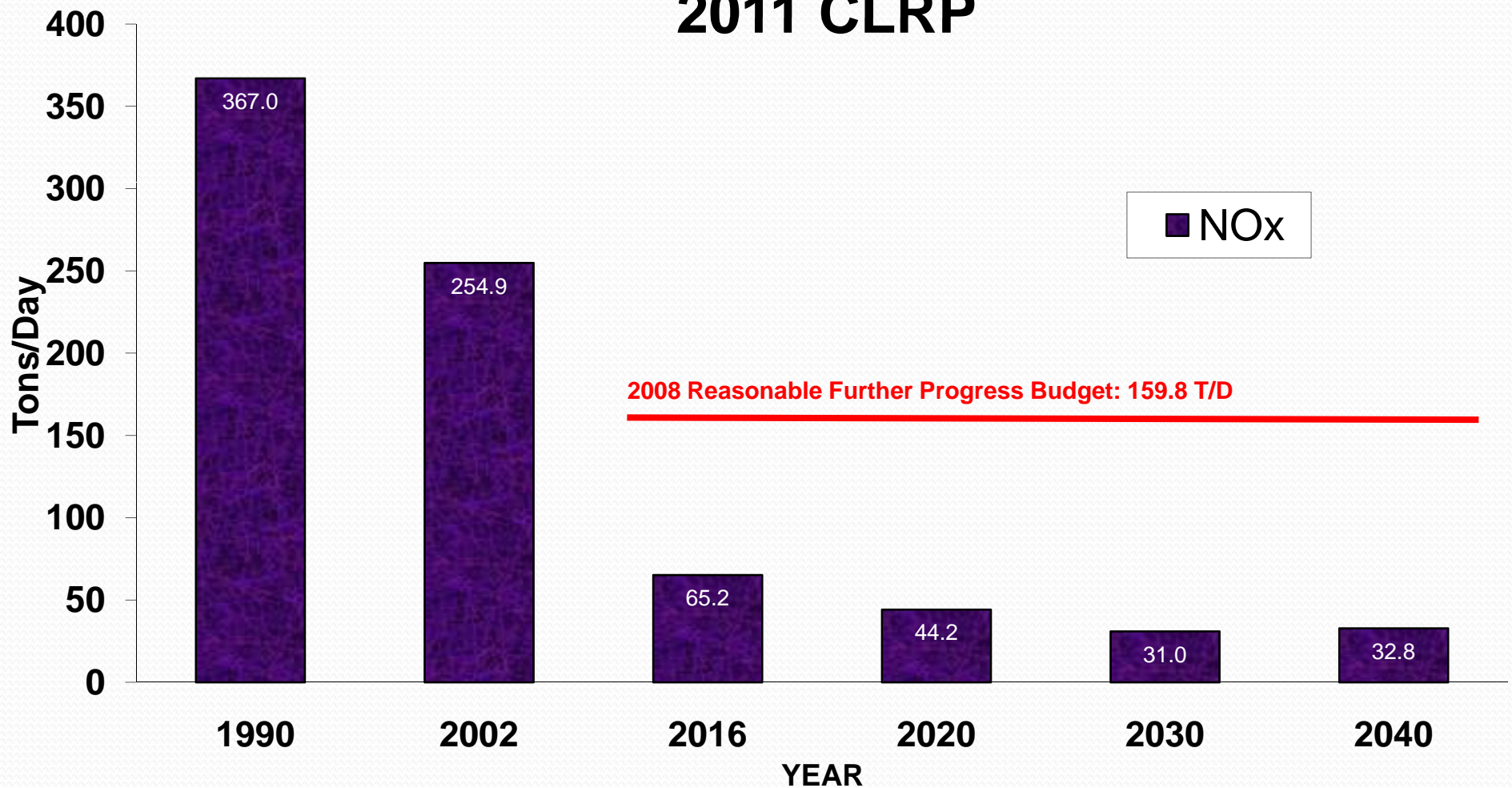
- ❖ OZONE SEASON POLLUTANTS:  
Within Approved Budgets
- ❖ FINE PARTICLES POLLUTANTS:  
Forecast Years Lower Than Base Year
- ❖ WINTERTIME CO:  
Within Approved Budget

# Mobile Source VOC Emissions for the 8-Hour Ozone Nonattainment Area 2011 CLRP

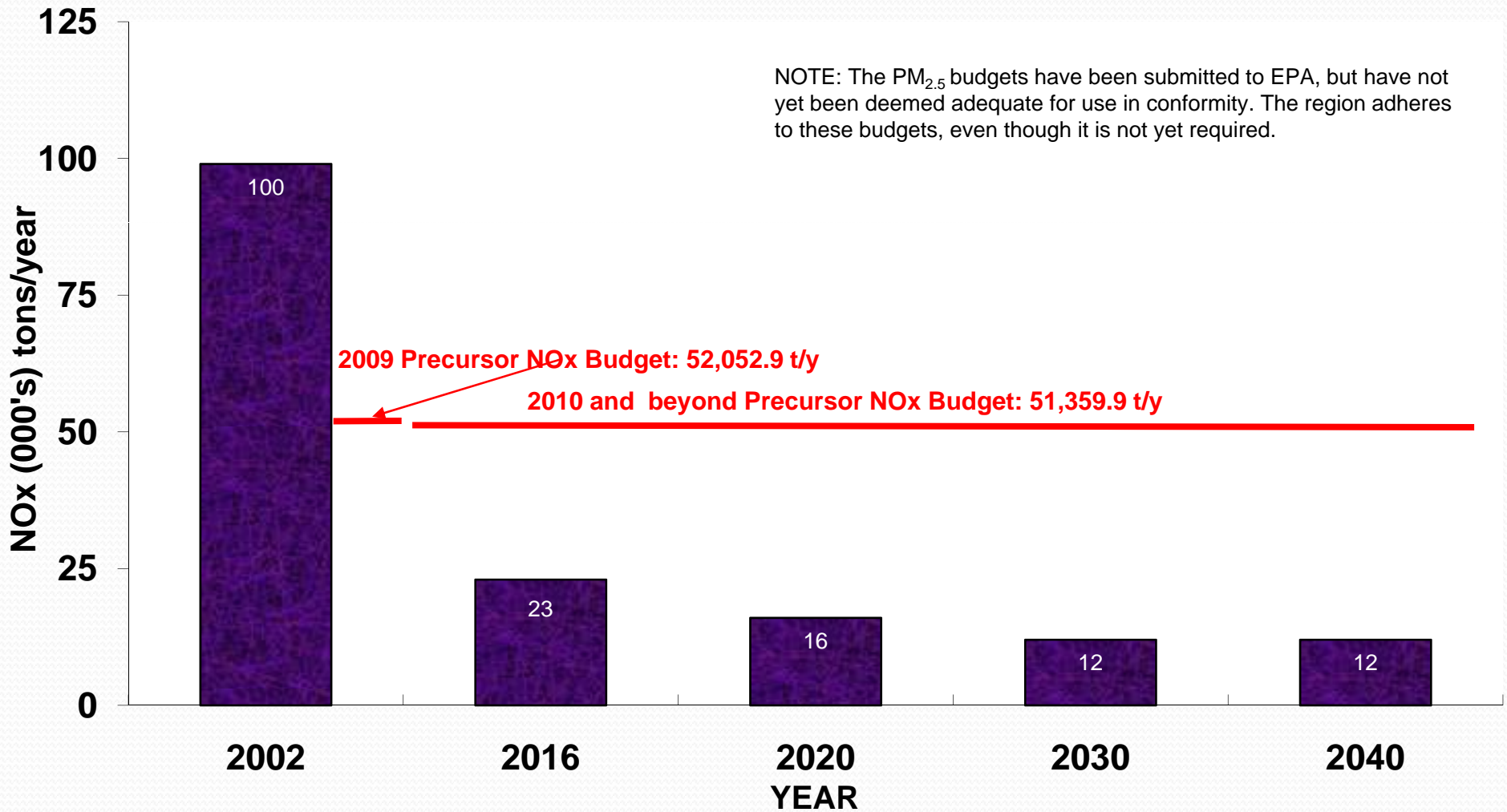




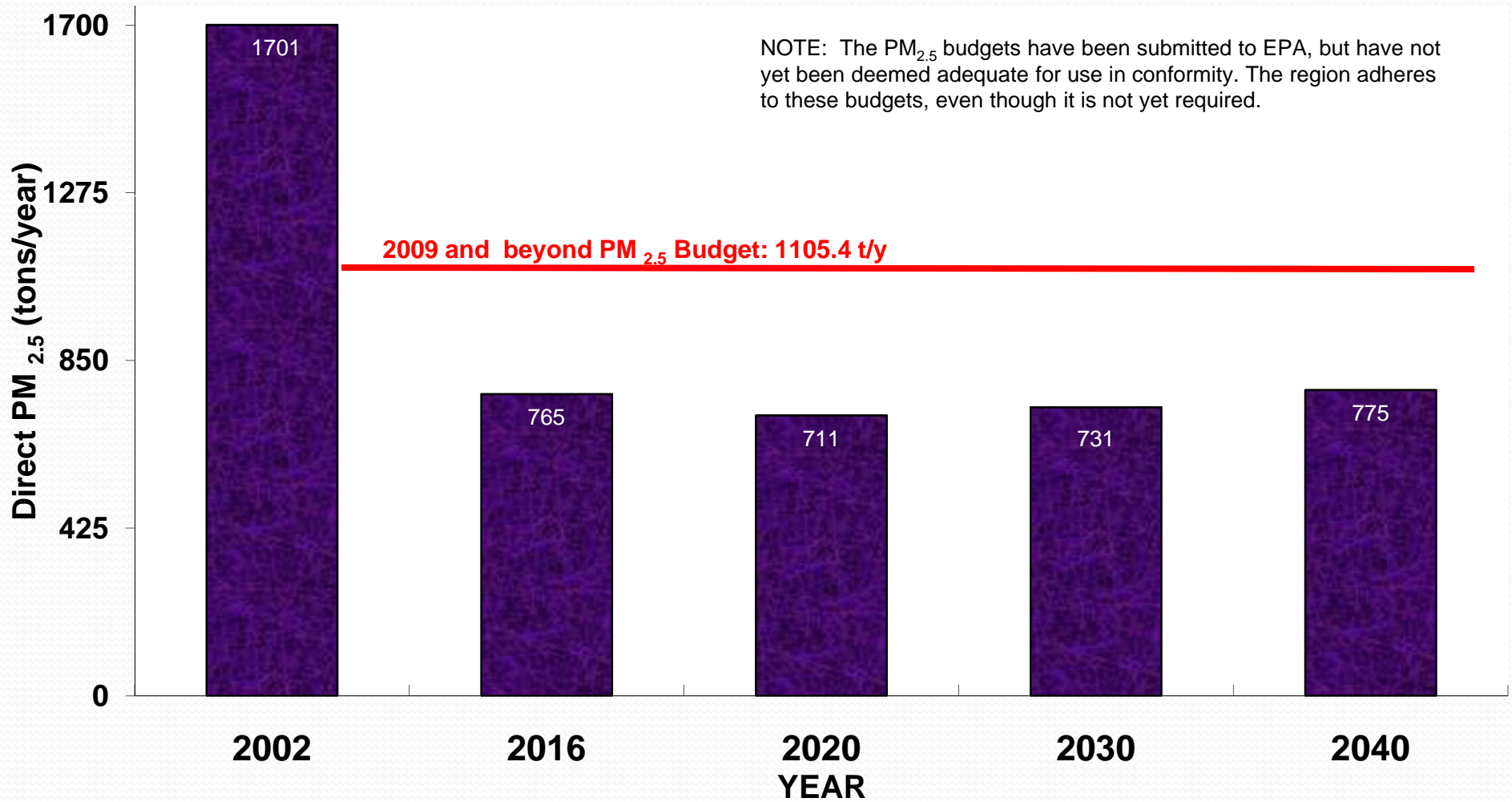
# Mobile Source NOx Emissions for the 8-Hour Ozone Nonattainment Area 2011 CLRP



# Mobile Source Emissions 2011 CLRP Precursor NOx



# Mobile Source Emissions 2011 CLRP Direct PM<sub>2.5</sub>





# SCHEDULE

October 13

Public Comment Begins

October 19

TPB Briefed on Conformity Results

November 12

Public Comment Ends

November 16

TPB Reviews Comments, Asked to  
Adopt Amendments