



Air Quality Conformity Determination Public Meeting

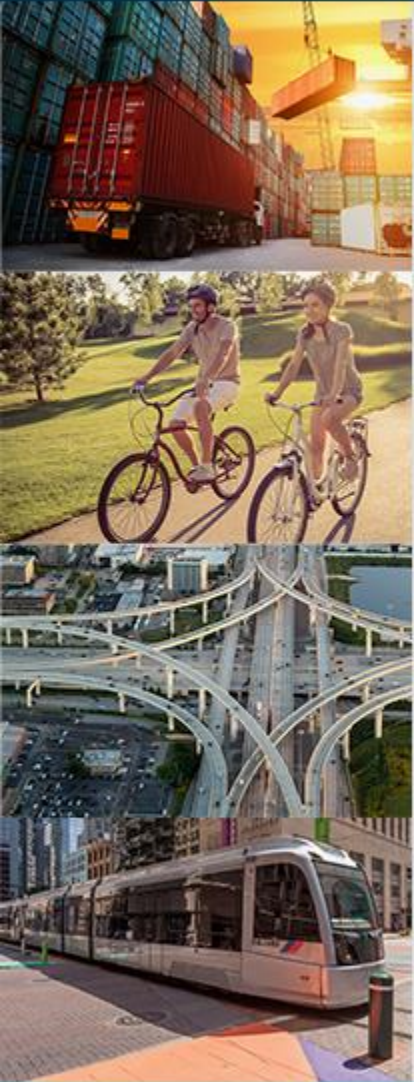


Graciela Lubertino, PhD
July 28, 2022

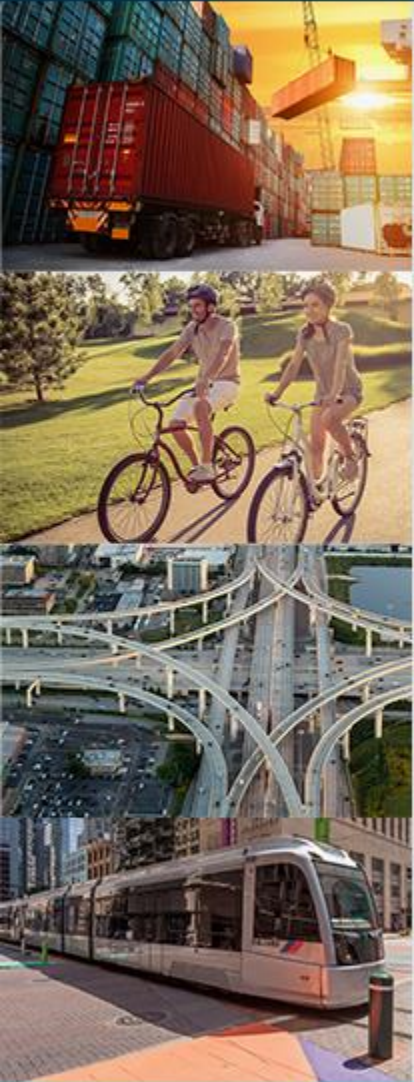
What is the Houston-Galveston Area Council?

H-GAC is the Metropolitan Planning Organization for the 8 county Transportation Management Area

- More than 6 million people
- 8 counties: Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller
- 134 cities



Transportation Plans



- **Regional Transportation Plan:** is the long-term transportation plan for the region ~ 20 years
- **Transportation Improvement Program:** is the short-term transportation plan for the region, first 4 years

Both need to be fiscally constrained

Air Quality Status

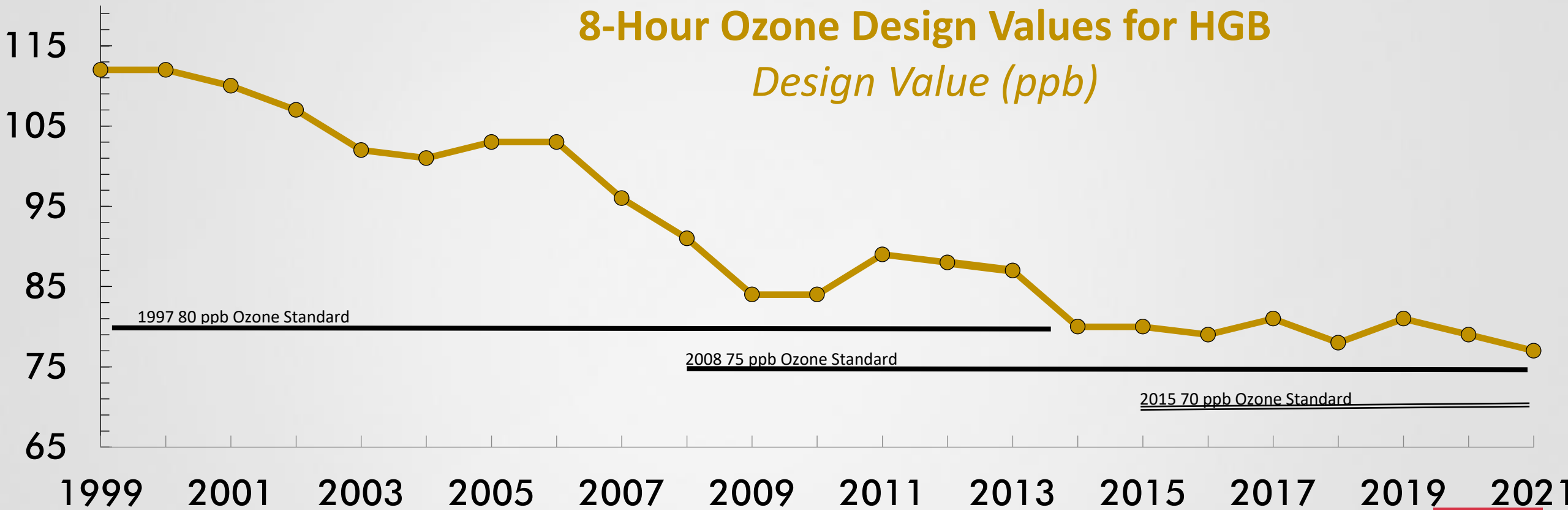
- Our region is in nonattainment for the 8-hr Ozone Standard

Classification:

Serious for the 2008 8-hr Ozone standard (75 ppb)

Marginal for the 2015 8-hr Ozone standard (70 ppb)

Air Quality in Houston Region



What is Conformity?

- Process that links the air quality State Implementation Plan with the regional roadway planning
- Ensures that transportation plans do not delay attainment of National Ambient Air Quality Standard



The SIP
(State Air
Quality
Plan)

conformity

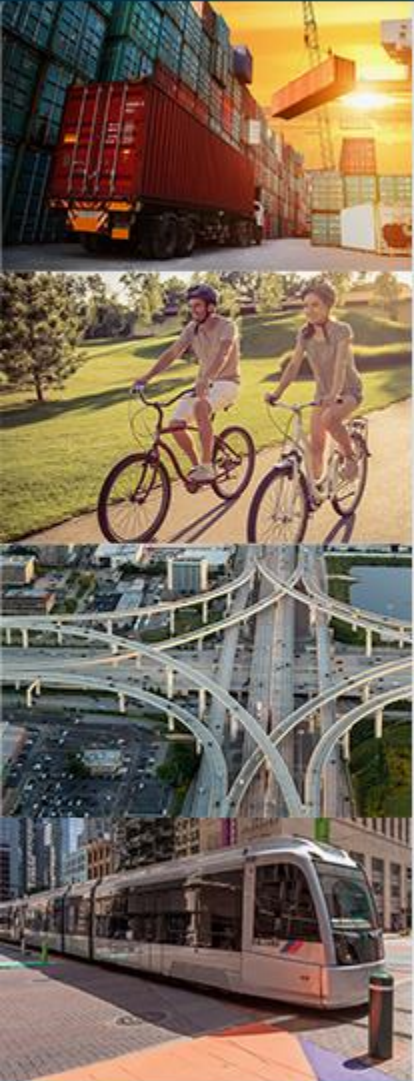
Transportation
Plan, and
Transportation
Improvement
Program (TIP)

Emission Budgets

- The emissions of transportation plans must conform to the emission budgets from the Air Quality State Implementation Plan
- Latest approved emission budgets:
Reasonable Further Progress budget for mobile sources found adequate by EPA June 9, 2021 – Serious classification

RFP Demonstration Budget (tons/day)		
Year	NOx	VOC
2020	87.69	57.70

NOx- Nitrogen Oxides
VOC-Volatile Organic Compounds



Reason for Conformity Determination



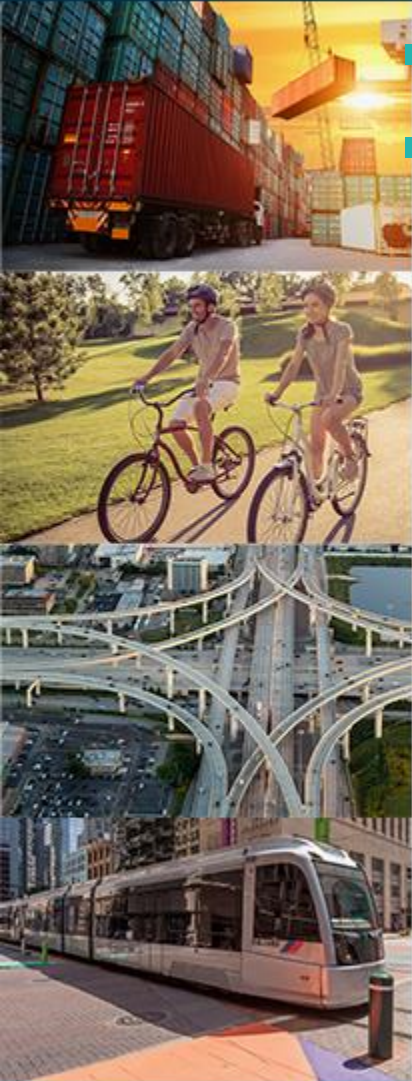
- The amendments to 2045 RTP and to 2021-2024 TIP reflect changes in fiscally constrained and in regional significant projects
- Full project list found in Appendix 3

Reason for Conformity Determination

- Amendment to 2045 RTP and 2021-2024 TIP

- Most significant projects include:

- a. Reconstruct and widen San Jacinto river bridge on IH 10 E
- b. Reconstruct Houston Ship Channel Bridge on IH 610 E
- c. Reconstruct IH 610 S between SH 35 (Mykawa Rd/SS 5) and SH 288 and IH 610 direct connectors at SH 35 (Mykawa Rd/SS 5)
- d. Widen Grand Parkway (SH 99) by adding Segments E and F.
- e. Reconstruct and Widen Beltway 8 (BW 8) frontage roads between E of Hardy Toll Rd to E of Aldine Westfield Rd
- f. Convert SH 288 to Freeway between future SH 99 to FM 1452
- g. Advance the IH 45 N interchange change at IH 10 W reconstruction and addition of IH 10 express lanes and IH 45 managed lanes part of the North Houston Highway Improvement Project (NHHIP) Segment 3 project to FY 2024.



Conformity Requirements

- Use of the latest planning assumptions
- Latest emission model approved by EPA
- Interagency consultation (EPA, FHWA, TCEQ, TxDOT, METRO)
- Public comment period
- Timely implementation of control measures
- It is demonstrated when projected regional emissions from the RTP do not exceed the region's motor vehicle emissions budgets stated in the Air Quality SIP



Calculations

Years selected:

- 2020 – attainment year for 2008 and 2015 8 hr. Ozone Standard
- 2030, and 2040 – intermediate years
- 2045 – horizon year

- Latest Planning available data: new vehicle registration, adjustment factors and fuel data.
- Air quality model: EPA MOVES2014b

Draft Air Quality Conformity Results

Conformity Analysis Results versus Emission Budgets from RFP SIP Serious Classification For 2008 8-hr Ozone Standard

Year	NOx Budget (tons/day)	NOx Emissions (tons/day)	VOC Budget (tons/day)	VOC Emissions (tons/day)	VMT
2020	87.69	77.00 ✓	57.70	51.59 ✓	187,732,361
2030	87.69	43.71 ✓	57.70	33.41 ✓	228,925,926
2040	87.69	38.15 ✓	57.70	25.05 ✓	268,588,372
2045	87.69	40.42 ✓	57.70	25.63 ✓	286,704,219

NOx- Nitrogen Oxides

VOC-Volatile Organic Compounds

VMT-Vehicle Miles Traveled



Proposed Timeline

- ✓ **November 2021:** Coordination with agency partners/TAC and TPC announcement to continue conformity – Pre-Con consensus document
- ✓ **November/December 2021:** Review for model networks and Pre-Analysis Consensus document
- ✓ **February 2022:** Travel demand model runs
- ✓ **March 2022:** Air quality model runs
- ✓ **April 2022:** TAC and TPC preview. Conformity documentation
- ✓ **May 2022:** Public comment period - May 2-June 3, 2022
- ✓ **May 2022:** Virtual public meetings - May 9, 2022
- ✓ **June 2022:** TAC recommendation and TPC adoption of conformity determination for RTP/TIP amendments
 - Receive Federal Approval – 3 months later

<https://www.h-gac.com/transportation-conformity/2022>

Questions