



# Air Quality Conformity Determination For Amendments to the 2045 Regional Transportation Plan



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# 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

- The amendments to 2045 RTP and 2021-2024 TIP reflect changes in fiscally constrained and in regional significant projects.

# Air Quality Status

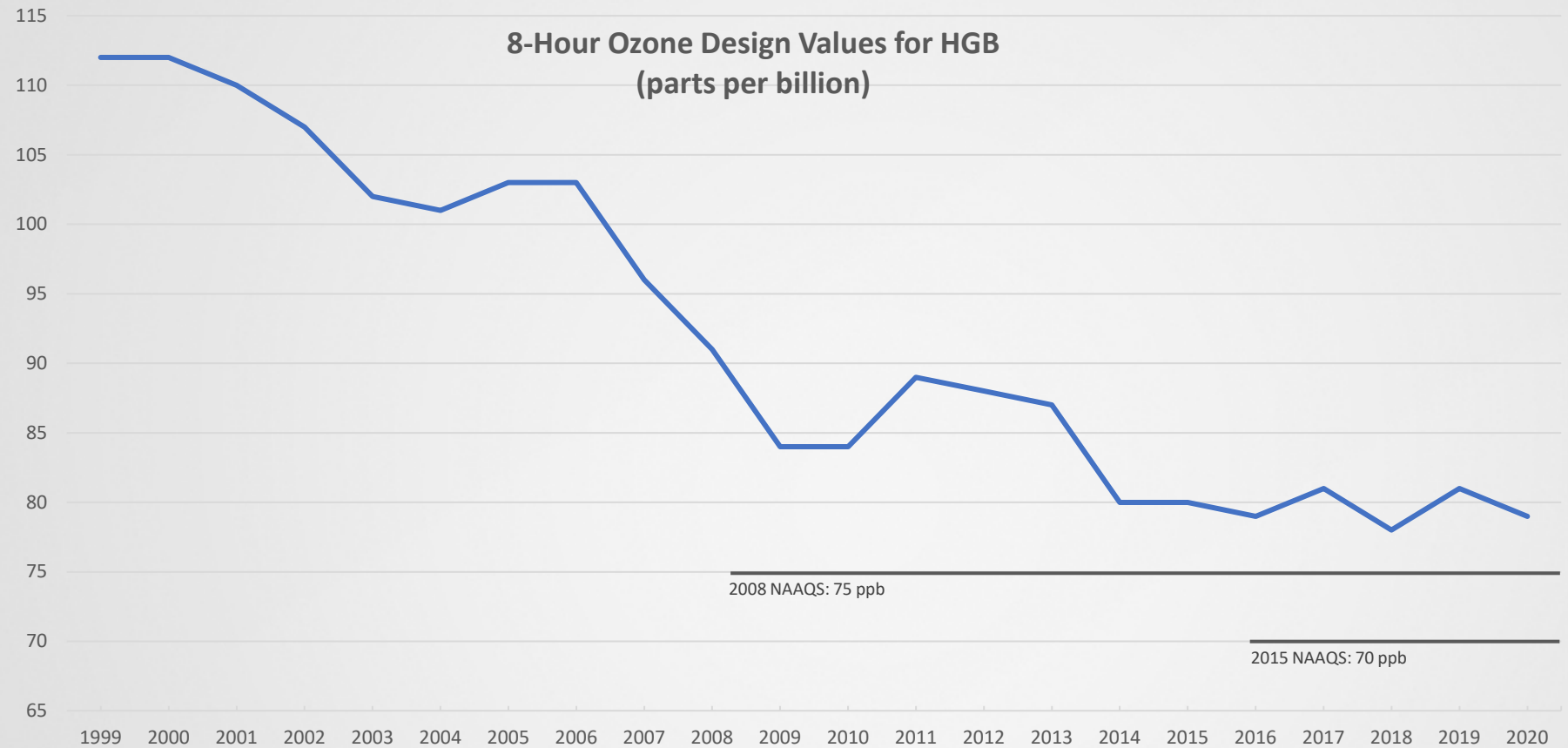
- Our region is in nonattainment for the 8 -hr Ozone Standard.

## 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 6, 2017 – Moderate classification

RFP Demonstration Budget (tons/day)		
Year	NOx	VOC
2017	121.81	68.04

NOx – Nitrogen Oxides

VOC – Volatile Organic Compounds

# Emission Budgets



Reasonable Further Progress budget for mobile sources in process of being approved by EPA - Serious classification

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

NOx – Nitrogen Oxides

VOC – Volatile Organic Compounds



# 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
- Demonstrated if projected regional emissions from the RTP do not exceed the region's motor vehicle emissions budgets stated in the Air Quality State Implementation Plan .

# 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.
- Latest air quality model: EPA MOVES2014b

# Draft Air Quality Conformity Results

## Conformity Analysis Results versus Moderate Emission Budgets

Year	NOx Budget (tons/day)	NOx Emissions (tons/day)	VOC Budget (tons/day)	VOC Emissions (tons/day)	VMT
2020	121.81	77.03 ✓	68.04	51.04 ✓	188,200,352
2030	121.81	43.54 ✓	68.04	37.01 ✓	228,967,318
2040	121.81	37.96 ✓	68.04	24.84 ✓	267,995,566
2045	121.81	40.25 ✓	68.04	25.32 ✓	286,876,227

NOx- Nitrogen Oxides

VOC-Volatile Organic Compounds

VMT-Vehicle Miles Traveled





# Draft Air Quality Conformity Results



## Conformity Analysis Results versus Serious Emission Budgets

Year	NOx Budget (tons/day)	NOx Emissions (tons/day)	VOC Budget (tons/day)	VOC Emissions (tons/day)	VMT
2020	87.69	77.13 ✓	57.70	51.04 ✓	188,200,352
2030	87.69	43.54 ✓	57.70	33.01 ✓	228,967,318
2040	87.69	37.96 ✓	57.70	24.84 ✓	267,995,566
2045	87.69	40.25 ✓	57.70	25.32 ✓	286,876,227

NOx – Nitrogen Oxides

VOC – Volatile Organic Compounds

VMT – Vehicle Miles Traveled

# Proposed Timeline

- **March 2020** : Coordination with agency partners/TAC and TPC announcement.
  - **October 2020** : Review for model networks and Pre -Analysis Consensus document.
  - **December 2020** : Travel demand model runs.
  - **January 2020:** Air quality model runs.
  - **March 2021:** TAC and TPC preview.
  - **March 2021** : Public comment period from March 26 to April 28
  - **April 2021** : Virtual public meetings –April 8, 2pm and 6 pm
  - **June 2021** : TAC and TPC recommends approval of conformity determination & RTP/TIP amendments.
  - Receive Federal Approval – 3 months later.
- <https://www.h-gac.com/transportation-conformity/2021>

# Questions

- Questions
- Contact
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