

Executive Summary

Milestones and Background

On April 20, 2018, the Federal Highway Administration and the Federal Transit Administration certified that the amendments to the Houston-Galveston-Brazoria region's *2040 Regional Transportation Plan Update* and the *2017-2020 Transportation Improvement Program* met all the requirements for a joint conformity determination to the Air Quality State Implementation Plan (SIP) for the Houston-Galveston-Brazoria (HGB) ozone non-attainment area.

This new conformity determination is being prepared to support the new 2045 Regional Transportation Plan (RTP) and to the 2019-2022 Transportation Improvement Program (TIP). Major elements of the TIPA and RTP include:

- The scope, schedule, and funding of projects;
- TxDOT projects that are undergoing environmental review and project development activities;
- New development of SH35 from Belfort to Downtown; and
- Bus Rapid Transit through I -10.

In accordance with [23 CFR 450.324](#), all projects are constrained by the financial resources estimated to be reasonably available within the RTP timeframe. A complete listing of the projects in the RTP and TIP that affect this conformity analysis are included in Appendix 3 of the conformity report.

This conformity satisfies the initial conformity requirement for the non-attainment designation for the 2015 8-hr Ozone Standard (effective date August 3, 2018) with "marginal" classification. Under the Clean Air Act, the conformity demonstration is required within one year of designation to avoid a conformity lapse. In addition, this conformity addresses conformity requirements for the 2008 8-hr Ozone National Ambient Air Quality Standard (NAAQS).

This conformity demonstrates compliance to the latest emission budgets in the air quality State Implementation Plan for the area. The budgets were included in the 2008 8-hr Reasonable Further Progress (RFP) SIP Revision for the Houston-Galveston-Brazoria (HGB) Area, adopted December 15, 2016. The budgets were found adequate by the Environmental Protection Agency (EPA) on June 6, 2017 with an effective date of June 21, 2017.

The February 16, 2018 court decision on *South Coast Air Quality Management District versus EPA* does not affect transportation conformity requirements for the 2015 ozone NAAQS.¹

¹ Transportation Conformity Guidance for 2015 Ozone NAAQS Nonattainment Areas. EPA June 2018
<https://www.epa.gov/state-and-local-transportation/policy-and-technical-guidance-state-and-local-transportation>

Please note, the air quality conformity analysis is done at the regional level, calculating regional analysis inventories for criteria pollutants. Therefore, does not evaluate the localized positive or negative impact for air quality in communities in proximity to major transportation projects.

Conformity Requirements

The Clean Air Act Amendments of 1990 (CAAA) require transportation plans, programs, and projects in non-attainment and maintenance areas, funded or approved by the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA), to conform to the Motor Vehicle Emission Budget (MVEBs) established in the SIP. This ensures that transportation plans, programs, and projects do not produce new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS. Conformity analysis requirements include:

- Use the latest planning assumptions
- Analysis based on the latest emission estimation model available
- Interagency consultation, and a public involvement process, must be conducted during the analysis
- Timely implementation of Transportation Control Measures (TCMs)
- An RTP and TIP that are consistent with the MVEBs established in the applicable SIP (if there is an adequate or approved SIP budget)
- Inclusion of all regionally significant projects expected in the non-attainment and maintenance area in the RTP and TIP

Regional Inventory

This conformity analysis developed an air quality regional inventory of the HGB non-attainment area. It accounts for emissions resulting from the non-attainment area’s transportation plan, including all regionally significant projects and the effects of emission control programs, such as the inspection and maintenance program.

Motor Vehicle Emission Budgets

The budgets established in the RFP SIP are as follows:

RFP MVEB

RFP Demonstration Budgets (t/d)		
Year	NOx	VOC
2017	121.81	68.04

Source: RFP SIP, TCEQ, effective June 21, 2017

Emissions Tests

As specified by the Code of Federal Regulations ([40 CFR 93.109\[c\]](#)), all ozone non-attainment areas must pass a MVEB test if an approved SIP budget exists. The HGB region is classified as “moderate” nonattainment for the 2008 8-hr Ozone Standard, with an attainment year of 2017, and covering the counties of: Harris, Galveston, Brazoria, Fort Bend, Montgomery, Liberty, Chambers and Waller. The RFP SIP budget was found adequate by the EPA on June 6, 2017 with an effective date of June 21, 2017. In addition, the HGB region is classified as “marginal” non-attainment for the 2015 8-hr Ozone Standard, covering the counties of: Harris, Galveston, Brazoria, Fort Bend, Montgomery, and Chambers.

In agreement with EPA regulations ([40 CFR 93.109©\(2\)](#)) to model the 2015 8-hr NAAQS:

- (ii) If the nonattainment area covers a smaller geographic area within an area for another NAAQS of the same pollutant, the budget test as required by §93.118 for either:*
 - (A) The nonattainment area, using corresponding portion(s) of the approved or adequate motor vehicle emissions budgets for that other NAAQS, where such portion(s) can reasonably be identified through the interagency consultation process required by §93.105; or*
 - (B) The area designated nonattainment for that other NAAQS, using the approved or adequate motor vehicle emissions budgets for that other NAAQS. If additional emissions reductions are necessary to meet the budget test for the nonattainment area for a NAAQS in such cases, these emissions reductions must come from within such nonattainment area;*

Following interagency consultation, it was agreed to use option B from above. Then, the eight counties are used to model the conformity determination for both ozone standards.

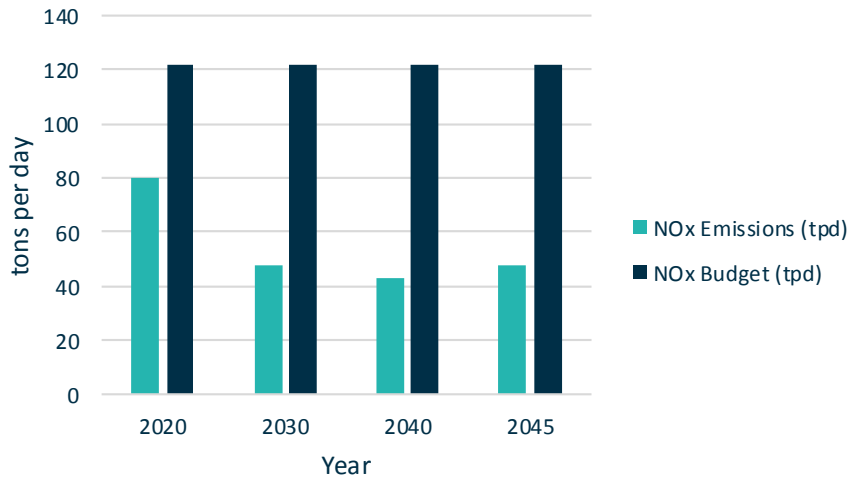
According to EPA’s Transportation Conformity Guidance for the 2015 Ozone NAAQS Nonattainment Areas: “the budget test is used when an area has either adequate or approved budgets for a pollutant in a SIP”. In this case, the budget test is satisfied using the MVEBs established in the RFP SIP mentioned above. Specifically, this test is satisfied when ozone precursor (VOC and NOx) emissions for each analysis year are less than or equal to the MVEBs established in the SIP. For the test, the regional emission analysis should be performed for any years selected according to the conformity rule. The table below shows the results of this conformity analysis.

Conformity Analysis Results

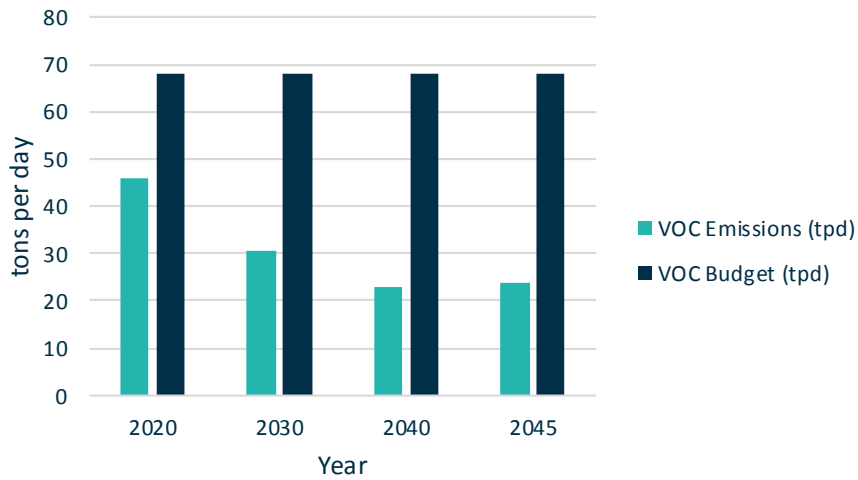
Year	NOx Emissions (tpd)	NOx Budget (tpd)	VOC Emissions (tpd)	VOC Budget (tpd)	VMT
2020	79.62	121.81	45.92	68.04	186,102,566
2030	47.21	121.81	30.26	68.04	224,407,834
2040	43.21	121.81	24.74	68.04	262,451,336
2045	47.18	121.81	23.76	68.04	281,225,676

The results of this conformity determination demonstrate that the *2045 RTP and to the 2019-2022 TIP* for the HGB TMA conform to the SIP for the HGB ozone non-attainment area and are in accordance with the Clean Air Act ([42 U.S.C. 7506](#) (c) and (d)), as amended on November 15, 1990, and the final conformity rule ([40 CFR 51](#) and [93](#)).

NOx Emissions Summary (tpd)



VOC Emissions Summary (tpd)



Background Information on Conformity

More information on what conformity is and the regulations that apply to it can be found at: https://www.fhwa.dot.gov/environment/air_quality/conformity/index.cfm

This conformity determination involved a pre-analysis review discussion with the review agencies (Chapter 8) and a public comment period (Chapter 9).