

## **UPDATE ON AIR QUALITY AND TRANSPORTATION CONFORMITY**

### **Background**

H-GAC is required to ensure that the Regional Transportation Plan (RTP), Transportation Improvement Program (TIP) and amendments thereto are consistent with the region's air quality goals. This determination is referred to as conformity and involves the modeling of emissions produced by vehicles within the 8-county Houston-Galveston-Brazoria Non-attainment Area.

All regionally significant projects, regardless of funding source, must be considered in this analysis and found to conform before federal actions related to the projects can be made. These actions include but are not limited to funding obligations, releases for rights-of-way acquisition or final design, and approvals of environmental documents and permits.

In addition, recipients of federal-aid highway and federal transit funds, including local governments and other public agencies, are required to ensure regionally significant projects which do not use federal funds satisfy conformity requirements (40 CFR § 93.121).

To accommodate changes to project scopes and schedules, new conformity analyses are periodically performed.

### **Current Situation**

The transportation conformity determination for the 2045 RTP and 2019-2021 TIP received federal approval on August 2, 2019. Since that time, H-GAC has received a request from TxDOT to amend the 2045 RTP through the addition of the projects listed below and discussed in Agenda Item 9. These significant project changes will require a new demonstration of air quality conformity and will increase the total expenditure of the 2045 RTP by approximately \$10 Billion.

- a. Express lanes on IH 610 between IH 10 and IH 69
- b. IH 10 W 2-way HOV lanes between IH 610 west loop and IH 45 N
- c. SH 35 Construct 6 lane freeway between Dixie Dr and City of Alvin.
- d. Change the Scope of Hempstead highway between IH 610 to Grand Parkway (SH 99)
- e. Reconstruct and widen San Jacinto river bridge on IH 10 E
- f. Reconstruct Houston Ship Channel Bridge on IH 610 E
- g. 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)
- h. SH 99 Segments E and F widening
- i. Reconstruct and Widen BW 8 frontage roads between E of Hardy Toll Rd to E of Aldine Westfield Rd
- j. Convert SH 288 to Freeway between future SH 99 to FM 1452

- k. Advancing 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 NHHIP Segment 3 project to FY 2022.

Currently, our region is in non-attainment for two ozone standards:

- 2008 8-hr ozone standard (75 ppb) with classification of “serious”
- 2015 8-hr ozone standard (70 ppb) with classification of “marginal”

This conformity is using the latest Motor Vehicle Emission Budgets from the Reasonable Further Progress Air Quality State Implementation Plan that were found adequate by the Environmental Protection Agency (EPA) on June 6, 2017. These budgets are for the “moderate” classification of the 2008 8-hr ozone standard. Please note that although the Houston region has been reclassified to “serious”, the emission budgets from the air quality plan have not been approved yet by EPA.

**Air Quality Analysis Results**

The following results from the air quality analysis show that Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOC) estimated to be generated from the proposed projects will result in emission levels that will be under the Budgets for the Metropolitan Planning Area, and therefore are in conformity with our region’s air quality state implementation plan.

<b>Year</b>	<b>NOx Emissions (t/d)<sup>1</sup></b>	<b>NOx Budgets (t/d)</b>	<b>VOC Emissions (t/d)</b>	<b>VOC Budgets (t/d)</b>	<b>VMT<sup>2</sup></b>
<b>2020</b>	77.03	121.81	51.04	68.04	188,200,352
<b>2030</b>	43.54	121.81	33.01	68.04	228,967,318
<b>2040</b>	37.96	121.81	24.84	68.04	267,995,566
<b>2045</b>	40.25	121.81	25.32	68.04	286,876,227

<sup>1</sup>t/d= tons/day

<sup>2</sup> VMT= vehicle miles of travel

**Conformity Timeline**

The following is a timeline for the review Air Quality Conformity Determination process:

- Mar., 2020: First conference call with agency partners/TAC and TPC announcement.
- Oct., 2020: Review for model networks and Pre-Analysis Consensus document.
- Dec., 2020: Travel demand model runs.
- Jan., 2020: Air quality model runs.
- Mar., 2021: TAC and TPC preview.
- Apr., 2021: Public comment and public meetings.
- May., 2021: TAC and TPC recommends approval of conformity determination and RTP and TIP amendments
- Receive Federal Approval – 3 months later.

**Action Requested**

Information only.