

Appendix 15

Interagency Conformity Consultation Committee

HGB Conformity Conference Call 7/7/11

Meeting Summary

Participants

Charles Airiohuodion (TxDOT), Chris VanSlyke (H-GAC), David Wurdlow (H-GAC), Shelley Whitworth (H-GAC), Graciela Lubertino (H-GAC), Bill Tobin (H-GAC)

Via Phone: Jose Campos (FHWA), Shundreka Givan (FHWA), Dennis Perkinson (TTI), Margie McAllister(TCEQ), Lola Brown (TCEQ), Heather Evans (TCEQ), Travis Walker (TCEQ), Jeff Riley (EPA), Catherine McCreight (TxDOT), Janie Temple (TxDOT), Laura Norton (TxDOT), Edmund Petry (METRO), Larry Badon (METRO), Vincent Sander (METRO)

Why are we doing this conformity?

TxDOT wants to put some projects back into the plan due to short term availability of funds and also due to CDA (comprehensive development agreement) authority to implement projects specified in the Senate Bill 1420. At the same time, projects already in the plan could be moved to different years based on sponsor request.

The list of projects to be modified or added to the plan is not ready yet, and H-GAC staff is working with TxDOT and consultants to select them in the next couple of weeks. It was noted by various members of the committee that they would like to have the list of project changes as soon as possible in order to expedite the review.

Travel Demand Model Update

New “time of day” factors, developed by TTI, have been incorporated into the travel demand model to reflect the data on the latest travel surveys done on 2008/2009 by TxDOT. Also, H-GAC will be implementing a feedback loop from assignment to distribution, because in this way the distribution model will be more sensitive to congestion.

In addition, the travel demand model will be using 2008 as the validation year with 2008 saturation counts from TxDOT. This new validation year will have new HPMS and seasonal adjustments factors.

Timeline

- **Beginning July 2011** - Start updating the networks. Start conference calls with conformity consultation partners and send pre-analysis consensus template

- **Mid August 2011** – end of travel demand model runs
- **First week of September 2011** – Start conformity air quality calculations and documentation.
- **End of September 2011**– Submit air quality results to conformity consultation partners. Work on documentation.
- **End of October, 2011** - Conference call with conformity consultation partners to open documentation for inter agency comments.TPC information item of Conformity finding- Open for public comments
- **Mid November 2011** –. MPO respond to comments.
- **End of November, 2011** - Close of public comment period. TPC final approval of Conformity finding. Formal letter to TxDOT. Conference call with conformity consultation partners to finalize the Conformity Finding.

Discussion of “HGB Pre-analysis Consensus Document” for the new conformity

The Pre-Analysis Consensus document was discussed, showing that the HGB region needs to do a new conformity determination due to changes in its project listing for the new 2011-2014 TIP and 2035 RTP Amendment. This time we will be conforming to the new SIP revisions submitted by TCEQ to EPA in March of 2010. EPA found adequate the new MVEBs on January 25 2011, with the effective date of February 9, 2011. As a consequence, the new conformity years are: 2011, 2014, 2017, 2018, 2025 and 2035. .

For this conformity determination, the validation year will be 2008. New HPMS and seasonal factors will be calculated due to the new validation year.

HGB Conformity Conference Call 2/14/12

Meeting Summary

Participants

Charles Airiohuodion (TxDOT), Chris VanSlyke (H-GAC), David Wurdlow (H-GAC), Shelley Whitworth (H-GAC), Graciela Lubertino (H-GAC), Bill Tobin (H-GAC), Marco Bracamontes (H-GAC)

Via Phone: Jose Campos (FHWA), Shundreka Givan (FHWA), Dennis Perkinson (TTI), Margie McAllister (TCEQ), Jeff Riley (EPA), Janie Temple (TxDOT), Vincent Sander (METRO), Joey Welch (TxDOT)

Background

H-GAC is amending the 2035 Regional Transportation Plan Update and the Transportation Improvement Programs, and as a consequence it has to update the Air Quality Conformity Funding. This amendment is the result of short term availability of funds (Proposition 12), the Comprehensive Development Agreement authority to implement projects specified in the Senate Bill 1420, and other local requests. In this way, some projects that were taken out of the plan due to lack of funding were put back, and projects already in the plan may have been moved to different years based on sponsor request.

H-GAC started this conformity process in July 2011 and it took 8 months to select the projects that are going to affect this conformity determination.

Travel Demand Model Update

In addition to the new “time of day” factors and the implementation of the new feedback loop from assignment to distribution to make the travel demand model more sensitive to congestion, the travel demand model will be using 2009 as the validation year with 2009 saturation counts from TxDOT. This new validation year will have new HPMS and seasonal adjustments factors.

New Timeline

- **Beginning January 2012** - Start updating the networks
- **Mid February 2012** – Complete travel demand model runs
- **Mid February 2012** - Start conference calls with conformity consultation partners and send pre-analysis consensus template

- **Mid February 2012** – Start conformity air quality calculations and documentation.
- **Mid March, 2012** – Submit air quality results to conformity consultation partners
- **14 of March, 2012** – TAC information item of Conformity finding
- **27 of March, 2012** - TPC information item of Conformity finding- Open for public comments
- **End of April 2012** – Close of public comment period.
- **End of May 2012** – MPO respond to comments.
- **End of June 2012** - TPC final approval of Conformity finding. Formal letter to TxDOT. Conference call with conformity consultation partners to finalize the Conformity Finding.

Discussion of “HGB Pre-analysis Consensus Document” for the new conformity

The Pre-Analysis Consensus document was discussed, showing that the HGB region needs to do a new conformity determination due to changes in its project listing for the 2011-2014 TIP, new 2013-2016 TIP and 2035 RTP Update. This time we will be conforming to the new SIP revisions submitted by TCEQ to EPA in March of 2010. EPA found adequate the new MVEBs on January 25 2011, with the effective date of February 9, 2011. As a consequence, the new conformity years are: 2011, 2014, 2017, 2018, 2025 and 2035.

For this conformity determination, the validation year was changed from 2008 to 2009. New HPMS adjustment factor will be calculated due to the new validation year.

HGB Conformity Conference Call 4/19/12 Meeting Summary

Participants

Chris VanSlyke (H-GAC), David Wurdlow (H-GAC), Graciela Lubertino (H-GAC)

Via Phone: Jose Campos (FHWA), Dennis Perkinson (TTI), Margie McAllister(TCEQ), Jeff Riley (EPA), Janie Temple (TxDOT), Laura Norton (TxDOT), Vincent Sander (METRO), Michelle Conkle (TxDOT), Jackie Ploch (TxDOT), Edmund Petry (METRO), Charles Airiohuodion (TxDOT), Amma Cobbinah (METRO) and Priya Zachariah (METRO)

Air Quality Results

The conference call started with H-GAC showing the new air quality results, since 2011 had to be re-run due to network errors and 2018, 2025 and 2035 had to be re-run due to the use of the wrong meteorology parameters, H-GAC used meteorology from the RFP SIP instead of AD SIP. The corrected results are following:

Year	NOx Emissions (tons/day)	NOx Budget (tons/day)	VOC Emissions (tons/day)	VOC Budgets (tons/day)	VMT
2011	129.95	135.74	70.76	75.17	134,400,331
2014	82.15	95.26	55.99	61.84	141,080,735
2017	58.15	67.95	46.42	53.23	149,069,977
2018	47.14	49.22	43.91	45.97	152,938,228
2025	33.11	49.22	37.24	45.97	172,219,411
2035	34.25	49.22	43.14	45.97	201,908,572

EPA, TCEQ, TxDOT and FHWA were good on no extending the public comment period due to the deference in meteorology and network inputs because they were not affecting the conformity finding.

All consultation partners agreed on deleting the Pre-Analysis Consensus Template documentation since this document was not approved by them previously to the air quality analysis.

TCEQ asked for a correction on Appendix 13 “TCM Timely Implementation”. They asked for the park and ride to be completed on 2011 to indicate that is already done.

TxDOT requested loaded networks for all the conformity years.

2009 Validation Year

H-GAC indicated that the 2009 Validation Report has been corrected. The following corrections were made:

- the freeway traffic counts also included the frontage roads, as a consequence, the volumes were corrected to reflect that.
- the traffic counts for tollways with their frontage roads were corrected and clean up manually

With these corrections the modeled VMT has been over forecast by 3% instead of 6% over county VMT.

FHWA indicated that have forwarded the Validation Report to the FHWA Resource Center for comments.

Public Meeting

H-GAC had a conformity public meeting on April 12th 2012. No public attended the meeting.

Timeline

No changes on the timeline.

HGB Conformity Conference Call 8/9/12 Meeting Summary

Participants

Chris VanSlyke (H-GAC), Shelley Whitworth (H-GAC), Graciela Lubertino (H-GAC), Patricia Lawhorn (H-GAC), Roland Strobel (H-GAC), Hans-Michael Ruthe (H-GAC), Steve Gage (H-GAC)

Via Phone: Jose Campos (FHWA), Dennis Perkinson (TTI), Margie McAllister(TCEQ), Jeff Riley (EPA), Janie Temple (TxDOT), Vincent Sander (METRO), Jackie Ploch (TxDOT), Laura Norton (TxDOT), Charles Airiohuodion (TxDOT), David Wurdlow (H- GAC), Michelle Conkle (TxDOT)

Discussion: During the call it was discussed the H-GAC response to comments from FHWA, TxDOT and TCEQ. FHWA informed that the 2009 validation year analysis was correct and that H-GAC needs to update Appendix 12. H-GAC agreed on updating the website after all the issues with the comments were resolved. Also, H-GAC expressed that the region needs a SIP revision to retire TCMs.

TCEQ COMMENTS April 10, 2012- H-GAC answers in red

1. The 2018 vehicle miles traveled (VMT) estimate for the eight-county HGB conformity analysis is 152,938,229, which is roughly 28 million miles (or 16%) below the 2018 Summer Weekday estimate of 180,993,087 used in the March 2010 HGB SIP based on inventory work from Spring of 2009. The technical information on this work is available at ftp://amdaftp.tceq.texas.gov/pub/Mobile_EI/HGB/m62/2018/. The recent 2018 Summer Weekday VMT estimate used for the MOVES2010a update is similar at 180,955,402. This work was done in the Winter of 2012 and is available at ftp://amdaftp.tceq.texas.gov/pub/Mobile_EI/HGB/mvs/. The table below details the differences by county:

HGB Area County	Recent Conformity Analysis	Spring 2009 for Last HGB SIP	Winter 2012 for Next HGB SIP
Brazoria	7,416,878	9,116,171	8,477,177
Chambers	3,003,609	3,998,297	3,831,327
Fort Bend	11,775,020	14,058,858	13,818,366
Galveston	5,915,118	6,750,271	6,898,244
Harris	107,218,306	125,484,043	126,846,143
Liberty	2,741,257	3,751,678	3,570,614
Montgomery	12,527,139	15,273,310	14,873,870
Waller	2,340,902	2,560,459	2,639,660
Eight-County Total	152,938,229	180,993,087	180,955,402

Please explain the large discrepancy of 153 million versus 181 million. Part of the large difference could be explained by the different Highway Performance Monitoring System (HPMS) adjustment factors used. Here is a summary:

H-GAC for recent conformity analysis – 0.90249 from page 27 of http://www.h-gac.com/taq/airquality_model/conformity/2012/docs/DRAFT-CONFORMITY-DETERMINATION.pdf

TTI from Spring 2009 for last HGB SIP – 1.006420340 from page 8 of ftp://amdaftp.tceq.texas.gov/pub/Mobile_EI/HGB/m62/2018/HGB_2018_Draft_Tech_Note.pdf

TTI from Winter 2012 for next HGB SIP – 1.007982193 from page 16 of ftp://amdaftp.tceq.texas.gov/pub/Mobile_EI/HGB/mvs/reports/mvs10a_att_hgb_18_technical_report_draft.pdf

The following statement is made on page 27 of the H-GAC conformity documentation: “This HPMS factor used in the conformity analysis was

not the same that was utilized in the SIP. The seasonal factor used in this analysis also differs from that used in the SIP.” One HPMS factor is in the range of 0.9 and the other in the range of 1.0. This 10% difference is very large and perhaps the conformity documentation needs to have more detail. **The TCEQ notes the VMT and HPMS discrepancies and awaits resolution of these issues by the FHWA and TxDOT**, the transportation reviewing partners.

The agencies accepted the new HPMS and seasonal factors as well as the use of the feed back loop.

2. Section 93.122(a)(6) of the federal conformity rule says, “The ambient temperatures used for the [conformity] regional emissions analysis shall be consistent with those used in the emissions budget in the applicable implementation plan.” With respect to the H-GAC conformity analysis, the hourly temperature, hourly relative humidity, and daily barometric pressure inputs for the 2018, 2025, and 2035 conformity analyses do not match those used for 2018 in the March 2010 attainment demonstration SIP. The 2018 conformity inputs are listed in the H-GAC MOBILE6.2 files available at ftp://ftp.h-gac.com/Pub/Transportation/Conformity/End11_Con/Mobile6_inputs/. They are uniform across all eight counties:

* HGA June through August Ozone Season (2006, 2007 and 2008
(10 maximum ozone day averages))
HOURLY TEMPERATURES: 72.4 76.0 79.6 83.1 85.6 87.8 89.0
90.1 91.2 91.2 91.4 90.9
88.8 85.4 82.7 81.0 80.3 78.8 77.1
75.7 75.2 74.1 72.7 72.5
RELATIVE HUMIDITY : 84.5 78.0 68.9 59.5 52.1 47.3 43.0
40.6 39.3 39.5 40.3 40.2
44.3 51.4 57.7 60.1 62.0 66.6 73.0
77.2 78.7 80.1 83.6 84.4
BAROMETRIC PRES : 29.87

These inputs are not appropriate for conforming to the 2018 attainment demonstration MVEB. The appropriate inputs are documented in the report available at ftp://amdaftp.tceq.texas.gov/pub/Mobile_EI/HGB/m62/2018/. This site also contains the actual MOBILE6.2 input files used by TTI, so copy/pasting should be easy. **Action requested:** please re-run 2018, 2025, and 2035 analyses using the correct hourly temperature, hourly relative humidity, and daily barometric pressure inputs that vary by county.

The years 2018, 2025 and 2025 were re-run using the correct meteorology.

Appendix 8 of H-GAC's documentation (http://www.h-gac.com/taq/airquality_model/conformity/2012/docs/Appendix8.pdf) correctly indicates that the RFP and attainment demonstration meteorological inputs should be different, but H-GAC's actual MOBILE6.2 input files on the FTP site do not reflect this. Also, although Appendix 8 indicates the inputs should be different, it doesn't specify which meteorological inputs are used for which conformity analysis years. **Action requested:** in Appendix 8 documentation, please specify, i.e., make clear, for each conformity analysis year, which temperature, humidity, and barometric pressure was used.

The documentation was revised to specify the requests.

3. The Texas Low Emission Diesel (TxLED) NO_x adjustment factors listed in Tables 1 and 2 of Appendix 5 of H-GAC's documentation (http://www.h-gac.com/taq/airquality_model/conformity/2012/docs/Appendix5.pdf) are correct. However, the TCEQ couldn't find the specific post-process adjustment factor file on the FTP site to show that they were actually implemented properly. **Action requested:** please provide this information. (This adjustment is typically done with the RATEADJ module.) Instead of referencing "Chris Kite" as the source of the information, please refer the reader to the FTP site where the full analyses are located (ftp://amdaftp.tceq.texas.gov/pub/Mobile_EI/HGB/m62/txled/) because such a reference is far more complete and informative. **Action requested:** please correct the source of the data.

The ftp site was updated to provide the TxLED correction. The data source was corrected.

4. The motorcycle emission rate adjustment factors listed in Table 3 of Appendix 5 are not complete. Only the NO_x/VOC exhaust adjustment factors are shown, and not the evaporative resting loss VOC adjustments. The TCEQ is incorrectly listed as the source of the data. The appropriate source is Table 34 on page 49 of this TTI inventory development report: ftp://amdaftp.tceq.texas.gov/pub/Mobile_EI/Statewide/m62/2006/Statewide_05-06_Final.pdf. **Action requested:** please correct the reference source of the data. **Action requested:** as with the TxLED issue referenced above, there should be an electronic file included on the FTP site that shows the actual adjustment factors used with the RATEADJ module.

Yes, The Table 3 was incomplete, but the calculations were done correctly. Table 3 was corrected in the documentation as well as the source. The electronic file was re-submitted.

5. The fuel sulfur level input for the 2002 calendar year is listed as 119.0, but should be 129.0 instead based on page 151 of the MOBILE6.2 user's guide. If this was the only

problem with the input files, the TCEQ would not recommend fixing it because it is a very small item. But because other changes are needed, then correcting it is warranted.

Action requested: Please correct along with other corrections.

This is how it is currently listed:

```
FUEL PROGRAM      : 4
                   150.0  149.0  119.0  120.0 120.0  90.0 30.0 30.0
30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0
                   1000.0 1000.0 1000.0 1000.0 303.0 303.0 87.0 87.0
80.0 80.0 80.0 80.0 80.0 80.0 80.0 80.0
```

This is how it should be listed:

```
FUEL PROGRAM      : 4
                   150.0  149.0  129.0  120.0 120.0  90.0 30.0 30.0
30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0
                   1000.0 1000.0 1000.0 1000.0 303.0 303.0 87.0 87.0
80.0 80.0 80.0 80.0 80.0 80.0 80.0 80.0
```

The typo is for the calendar year 2002 sulfur level, but calendar year 2002 was not used in our calculations as a consequence is irrelevant.

FHWA Preliminary comments received on 5/2/12 – H-GAC answers in red

2035 RTP Conformity Comments – Network Related

MPOID #	Comment
10582	Verify “To”; network is labeled FM 528/Davis Bend for CR 179 Verified using STARMAP. Network is coded correctly. To steet label has been changed to CR179/Davis Bend
671	Verify “Street”; network is labeled CR 103/Hughes Road for CR 403. Verify “From”; network is labeled SH 288 for CR 94 Verified using STARMAP. Network is coded correctly. Street name was mislabeled and changed from CR103 to CR403/Hughes Road.
12759	Verify “From”; network is labeled Woodfin Rd for Fort Bend C/L Verified using STARMAP. Network is coded correctly. Network is representative, Woodfin Road is on the Fortbend County Line.
11653	Verify “From”; network is labeled FM 521 for Fort Bend C/L Verified using STARMAP. Network is coded correctly to the Fort Bend County Line.
11633	Verify “To”; network is labeled FM 518/Broadway for Bailey Rd Network has been corrected (South Fork to CR101/Bailey).
7628	There is no connector from Mclean Rd Network has been corrected (extended to Mclean Road).
669	Verify “From”; network is labeled Pearland/Brittany Bay for Galveston C/L

	Network has been corrected (extended to Galveston CL).
253	Verify “From”; network is labeled FM 1462 for Fort Bend C/L to N of West Columbia Network has been corrected (extended to Fort Bend CL).
15334	Verify the “From” and “To” limits; the document is not consistent with the network Verified using STARMAP. Network is coded correctly. SH36 from TEXAS to South of CR 310.
11658	Verify the “From”; network does not include an intersection at Skinner LN Verified using STARMAP. Network is coded correctly. Model does not include Skinner Ln as part of the network.
6063	Verify project limits; unable to locate the termini listed in the document Verified using STARMAP. Network is coded correctly. Cr227 is in Wharton County (not included in network). The network will be coded from the Wharton CL to Darst.
7582	Verify project limits; unable to locate the termini listed in the document Verified using STARMAP. Network is coded correctly. Present termini is just west of 73 rd .
13511	Verify lanes; 2014 should be coded as 4 lanes, network has 2 lanes Network has been corrected to 4 lns.
13856	Verify lanes; ranges between 4 to 6 lanes, not 6 to 10 as listed in the document Network is coded correctly. New Hot lane (4) future expansion (6). The 6 and 10 lns include the Hot and Main lanes.
11032	Verify lanes; from 0 to 4 lanes, not 2 to 4 as listed in the document Verified using STARMAP. Network is coded correctly. Strawberry will use some exiting rds (not Strawberry), but the majority will be new construction. Project has been changed to 0 to 4.
14707	Verify the coding for the number of lanes; network goes from 8 to 10 lanes and not 6 to 10 as stated in the document. Verified with Google maps. Network has been corrected to 6 lns in 2011.
14615	Document states that project is under construction (let); why is this project programmed for fiscal year 2026? Project database has been corrected to 2014.
362	Document states that project is under construction (let); why is this project programmed for fiscal year 2018? Project database has been corrected to 2014.

Model networks were modified as required based on the comments.

2035 RTP Conformity Comments – Model Validation Related **H-GAC Counts and Validation**

Is the count coverage sufficient?

Using the proportion of VMT showing up on links where there are counts is a reasonable measure. The report keeps using “share of links” (presumably based

on the number of links with counts). A preferable approach would be to use lane miles as a basis for comparing coverage rather than the number of links. It's possible that TTI did base the count coverage on lane miles, in which case simply improving the documentation would address the concern.

Is the model performing adequately against those counts?

By using VMT comparison (count times link length) rather than directly estimated volumes and counts, each count location will contribute a weighted amount to the sum based on the link lane miles, and the weight will tend to bias the modeled-to-observed ratio toward whatever happens on the (arbitrarily) longer links. It's impossible to say how much of that error is due to model performance, and how much is due just to spatial correlation between over-assigned volumes and link length.

A preferable approach would be to compare volumes and counts directly (add up the counts, add up the model volumes, and evaluate the percent difference). The incorporation of distance, if it seems necessary for some reason, could be managed by establishing a consistent "link length" at each count location (an arbitrary distance, say 10 meters). This would produce mathematically consistent and unbiased results that would mirror the volume-to-count comparison; nothing is gained by multiplying by distance in any case.

Cross-tabulations of counts by area, roadway, and vehicle type may provide further insight into model performance as well.

Additional observations

The magnitude of the VMT adjustment factor (roughly .9) suggests that the model's understanding of travel behavior and patterns may have changed since the initial calibration year. Additional effort will likely be needed to better understand the source of discrepancies; for instance, the economic downturn may have had some impact on trip frequency - controlling for employment and labor force participation levels - that may require further attention to model trip rate parameters. Other contributors to VMT deltas, including trip rates and non-auto model utilization, should also be verified to the best extent possible. The 2009 NHTS add-on survey and 2005-2009 ACS tabulations may be good sources for insight about geographic distributions of person-travel patterns.

Recommendations

HGAC is encouraged to pursue a comparison of model estimate volumes and counts, as recommended above, to eliminate any arbitrary network distance biases. The application of adjustment factors should be pursued as a post-

processing step to reconcile VMT as a 'last resort', and only after meaningful efforts to achieve greater consistency between model and HPMS VMT estimates in the validation year (2009). Any adjustments should also be applied in a manner that reflects variability across roadway type, area type, and (potentially) vehicle class cross-tabulations.

The 2009 validation report was changed accordingly. These changes included class cross-tabulations of model VMT vs. counted VMT by roadway type and area type.

2035 RTP Conformity Comments – Conformity Determination Documentation Related

Substantial Comments

1. What is the purpose of highlighting the projects listed in this document vs. those listed in Appendix 12? (p.11, subscript 1) Page 11 is mentioning some of the projects that changed and trigger the conformity. Appendix 12 lists all the projects in the plan.
2. What is the basis of the 1990 base year? 1-hr or 8-hr SIP? Because is required by the conformity rule. See page 17 of main document under “1.3 Conformity Criteria”

Editorial Comments

1. Check the links in the Table of Contents that read “Error! Bookmark not defined.” on pages 3 and 4. That is an error from MS word.
2. The document makes several references to a January 28, 2011 certification date; the MTP conformity date is January 25, 2011 and the 2011-2014 TIP/STIP conformity date is February 1, 2011. (p. 10 and throughout the document) The date was corrected in the document.
3. Remove “s” from Transportation Improvement Programs. (p. 10, 2nd paragraph) Done.
4. Check format – January 25 2011 to January 25, 2011 (throughout the document) Done
5. Why was Appendix 17 removed from the website? TCEQ requested it because it was never approved by the consultation partners.

FHWA Comments received on 7/25/2012 – H-GAC answers in red.

Draft Conformity Determination:

1. Page 11: Note “1” on this page indicates that a complete list of project revisions is included in Appendix 12. It is noted that Appendix 12 includes a revised project listing for the 2035 RTP Update; however it does not appear to indicate

which projects are being revised as part of this amendment. Please clarify or revise this note as appropriate.

- a. The note erroneously refers to Appendix 12 (project listing) instead of Appendix 18 (Status of Non-Exempt Projects). The text has been updated to read: "This list is not exhaustive of all project revisions that affect conformity. A complete listing of such revisions is contained within Appendix 18."***

2. Page 12: The sixth sentence in the second full paragraph on this page should be revised concerning the need for an emissions analysis to be conducted for each year with an emissions budget and the attainment year (i.e., "should" versus "may" be conducted).

Correction done

3. Page 13: The discussion in the first full paragraph on this page indicates that the subject conformity determination is intended to address the 2035 RTP Update amendments, the FY 2011-2014 TIP and the FY 2013-2016 TIP. It is noted that a revised FY 2011-2014 TIP or the FY 2012-2016 TIP do not appear to have been submitted with the conformity determination documentation. Based upon information provided in Appendix 18 (Status of Non-Exempt Projects), it appears that substantial revisions are necessary to the FY 2011-2014 TIP/STIP based upon the proposed amendments to the 2035 RTP Update. Please provide clarification concerning H-GAC's intent regarding the revision of the FY 2011-2014 TIP/STIP consistent with the proposed RTP amendments. It is noted that conformity of the 2013-2016 TIP will be reviewed in conjunction with the review and approval of the FY 2013-2016 STIP.

- a. Following additional discussion, we have identified all conformity-related modifications that were not previously submitted for revision to the 2011-2014 STIP. We have processed Amendment #57 to the 2011-2014 TIP, which has been submitted to TxDOT for inclusion in the August 2012 Quaterly STIP revisions. Please note that these modifications are not expected to affect any pending or planned requests for federal action on projects subject to 40 CFR §93.104(d).***
- b. With regard to the 2013-2016 TIP, we accept that only one conforming TIP may exist at any time [§93.114 (a)] and expect a Federal action to find the 2013-2016 TIP to be in conformity will occur concurrent with approval the 2013-2016 Statewide TIP. We maintain that this transportation conformity determination and associated regional emissions analysis satisfy the requirement that the new TIP is demonstrated to conform prior to MPO approval.***

4. Page 14: Please confirm that Figures 1 and 2 on this page have been updated to reflect the revised regional emissions analysis (i.e., based upon revisions to MOBILE emission model inputs). A similar comment applies to Figures 1 and 2 in the Executive Summary.

Done

5. Page 23: The discussion in the first full paragraph on this page provides information concerning the expenditures included in the 2035 RTP Update. Are the funding estimates noted in this discussion reflective of the 2035 RTP Update or the 2035 RTP Update amendments? Please clarify.
- a. This conformity reflects additional revenues that were not anticipated in the 2035 RTP Update approved by the Transportation Policy Council in October 2010. These additional revenues, totaling \$1.4 billion, are the result of allocations from state and federal funding programs as well as additional local financial commitments, bringing the total estimate of reasonably available revenues to \$87.1 billion. The net effect of revisions to planned expenditures reduces the total by \$1.7 billion to \$84.0 billion, primarily a result of updated costs estimates and the cancelation of projects on local arterial roadways.**
 - b. The text has been updated to reflect the 2035 RTP Update amendments approved by the Policy Council at its April 27, 2012 meeting.**
6. Page 23: The discussion in the second full paragraph on this page provides information concerning the expenditures for emission reduction programs. Is the funding information noted in this discussion reflective of the 2035 RTP Update or the 2035 RTP Update amendments? Please clarify.
- a. The text has been updated to reflect the 2035 RTP Update amendments approved by the Policy Council at its April 27, 2012 meeting:**
 - i. On-road mobile transportation is one of several broad categories contributing to the formation of ground-level ozone. To meet the federal air quality standard in this region, reductions are needed from all source sectors. The 2035 RTP Update includes continued funding for regional mobile source emission reducing programs at or above current funding levels (approx. \$10 million per year) through 2035. These programs currently include:*
 - 1. Clean Vehicle/Clean Cities – Engine replacement, vehicle replacement and alternative fueling infrastructure;*
 - 2. Regional Vanpool;*
 - 3. Commute Solutions – Telework Initiative, Transit Services Pilot Program, NuRide and other ride-sharing services; and*
 - 4. Clean Air Action – Outreach and marketing to increase program participation, recognition of private and public sector partners.*

7. Page 25: The discussion in the second full paragraph on this page provides information concerning the development of demographic forecasts for the H-GAC region. Please provide information, as appropriate, concerning actions taken to review/confirm demographic forecasts for the H-GAC region in conjunction with the 2009 travel model validation effort.

The regional demographic (population and employment) forecast was formally adopted in February 2005 after more than a year of work by the Forecast Advisory Committee. This forecast was used in all travel demand travel runs, including air quality budget development and all Conformity findings since 2005. However as part of this Conformity the 2009 household estimate was calculated based on 2010 Census household data. It was deemed based on the accuracy of the original 2009 forecast to the 2009 backcast data, that no adjustment to future years (2014, 2017, 2018, 2025 and 2035) was required.

8. Page 25: Does the discussion in the third paragraph on this page and in Table 3, reflect information consistent with the 2009 travel demand model validation effort? If not, the discussion and Table 3 should be revised to reflect consistency with this effort.

This table does reflect the data used in the travel demand model runs.

9. Page 26: The discussion in the first paragraph on this page should be revised to reflect the 2014 and 2017 analysis years and the 2009 travel model validation as appropriate.

Text modified accordingly.

10. Page 26: The discussion in the second full paragraph on this page indicates that the procedures used to develop time-of-day travel and speed inputs are consistent with those used in the development of the RFP SIP. Should this discussion also refer to the AD SIP? Please clarify or revise as appropriate.

Text modified accordingly.

11. Page 26: The discussion in the third paragraph refers to the regional roadway network utilized for each of the four analysis years. However, it appears that a regional emissions analysis was conducted for more than four analysis years. Please clarify or revise this discussion as appropriate.

Text modified accordingly.

12. Page 26: The discussion in the fifth paragraph on this page refers to a comparison of 2009 estimated regional VMT to 2005 HPMS estimated VMT. It is our understanding that 2009 estimated regional VMT was compared to 2009 HPMS estimated VMT. Please clarify or revise this discussion as appropriate.

Text modified accordingly.

13. Page 29: The discussion in the seventh paragraph on this page refers to the 2005 AM and PM peak-period assignments and 2005 observed directional speeds. Is this consistent with the 2009 travel demand model validation? Please clarify or revise as appropriate.

The speed model was last validated to actual speeds was in 2005. The HGAC speed model outputs were recently compared to Inrix speeds by AECOM as part of the activity model development; it was deemed that the speed model output matched Inrix speeds.

14. Page 30: The second sentence in the last paragraph on this page indicates that VMT is expected to reach 201.9 million in 2025. Based upon the information in Table 5, it appears that this reference should reflect 2035.

Text modified accordingly.

15. Page 30: The discussion in the last paragraph on this page refers to a Pre-Analysis Consensus Plan in Appendix 17. It is noted that the conformity documentation does not include an Appendix 17 or Pre-Analysis Consensus Plan. Please clarify or revise this discussion as appropriate.

Text modified accordingly.

16. Page 30: The discussion in the last paragraph on this page refers to HPMS and seasonal factors applied to VMT. What were the HPMS and seasonal factors applied to VMT? Recommend that the discussion be revised to reflect the HPMS and seasonal factors.

Text modified accordingly.

17. Page 39: The discussion in the first paragraph on this page discusses intrazonal trip VMT developed by the travel demand model. Are HPMS and seasonal factors applied to the intrazonal VMT? Please clarify.

Both seasonal and HPMS adjustments are applied to all VMT, including intrazonal VMT. These adjustments are made to intrazonal VMT since HPMS

VMT estimate is a snapshot of total regional VMT that includes, in theory, intrazonal VMT.

18. Page 39: The discussion in the last paragraph on this page and the associated Table indicate the application of post process adjustments. What is the basis for the “temp/humidity” adjustment noted in the Table (e.g., reduction of 1.71 tons per day, only applied to NOx)? Please explain.

Tech modified as requested

19. Page 40: Are the emissions results noted in Table 11, consistent with the revised emissions analysis (i.e., based upon revisions to MOBILE emission model inputs).

Yes

Appendix 12 (2035 RTP Update Project Listing):

1. General: Please provide a summary demonstrating fiscal constraint for the 2035 RTP Update amendments (i.e., estimated Federal, State and Local revenues and project expenditures).

a. A summary demonstrating fiscal constraint for the 2035 RTP Update amendments is attached.

Appendix 13 (TCM Timely Implementation):

1. General: It is noted that many of the TCM projects reflected in Appendix 13 indicate completion dates prior to 2012. What is the basis for the TCMs noted in Appendix 13 (i.e., in what SIP(s) were the TCM commitments included)? For what year are the emission reductions noted in Appendix 13 calculated (i.e., 2018 attainment demonstration)?

a. The TCMs for the 1-Hour Ozone SIP approved in 2001 were substituted during the inter-agency conformity consultation process in 2005. These substitutions were made within categories and were deemed adequate to meet previous TCM commitments.

The TCMs reported in this appendix are commitments for the Attainment Demonstration 1-hr Ozone standard SIP, which was approved by EPA on 9/6/2006, and were estimated for the 2007 attainment deadline.

b. Control measures proposed during development of the Attainment Demonstration SIP for the 8-hr ozone standard are not reported on in the appendix as the SIP has not been approved by EPA.

c. H-GAC has maintained a continuous record of several of these projects, which have been documented and reported upon on a rolling basis for five years or longer. During the next conformity process, projects implemented for more than five years will be retired.

2. Page 2: The Draft Conformity Determination indicates that TCM emissions credits were not applied to the subject conformity determination (page 34, Section 5.1.1). However, the discussion in the first paragraph in Appendix 13 indicates that TCM emissions credits are applied to the subject conformity determination. Please explain or revise as appropriate.

The text has been corrected as follows: “Note this appendix demonstrates timely implementation of TCMs, but TCM emission credits are not applied to this conformity

3. Page 15: What are the traffic engineering improvements related to projects MPO ID 270 and 9720 noted in the “Traffic Engineering” category?

a. These projects included TSM improvements during reconstruction of the US 59 S frontage roads. Credit for HOV elements was committed as a separate control strategy for the 1-Hour Ozone SIP approved in 2001.

4. Page 18: Project MPO ID 7270 is included in the “turn lanes” category of Traffic Flow Improvements. However, the project description provided does not appear to reflect the implementation of turn lanes. Please explain or revise as appropriate.

a. The referenced project describes the physical improvements resulting in the addition of a turn lane (widen pavement and restripe).

FHWA Follow-Up Comments – H-GAC April 2012 Conformity Determination (08-17-2012)

H-GAC response

FHWA response

H-GAC response

FHWA Preliminary comments received on 5/2/12 – H-GAC answers in red (Appendix 15 – 08-10-2012)

Substantial Comments

3. What is the purpose of highlighting the projects listed in this document vs. those listed in Appendix 12? (p.11, subscript 1) **Page 11 is mentioning some of the projects that changed and trigger the conformity. Appendix 12 lists all the projects in the plan.**

FHWA response: Okay

4. What is the basis of the 1990 base year? 1-hr or 8-hr SIP? **Because is required by the conformity rule. See page 17 of main document under “1.3 Conformity Criteria”**

FHWA response: Based upon information provided in 93.118, it appears that a demonstration indicating emission levels in the various analysis years to be less than a “baseliner” emissions level is not required for ozone non-attainment areas with 8-hour MVEBs that have been found adequate for conformity purposes. Additionally, if such a test is required it appears that the “baseline” year for an 8-hour ozone non-attainment area is 2002 (93.119). Recommend deletion of the last bullet on page 17 of the conformity determination document and any other similar references to the 1990 baseline emissions test requirement.

The bullet was deleted as well as other references to 1990 baseline emissions.

Editorial Comments

6. Check the links in the Table of Contents that read “Error! Bookmark not defined.” on pages 3 and 4. **That is an error from MS word.**

FHWA response: Will the MS Word formatting issue be addressed in the final version of the conformity determination document? It is noted that the “Table of Contents” continues to reflect “Error! Bookmark not defined” on pages 3 and 4.

H-GAC took care of the error.

7. The document makes several references to a January 28, 2011 certification date; the MTP conformity date is January 25, 2011 and the 2011-2014 TIP/STIP conformity date is February 1, 2011. (p. 10 and throughout the document) **The date was corrected in the document.**

FHWA response: The noted corrections do not appear to be reflected in the revised conformity determination document.

H-GAC included the TIP conformity date.

8. Remove “s” from Transportation Improvement Programs. (p. 10, 2nd paragraph)
Done.

FHWA response: The noted correction does not appear to be reflected in the revised conformity determination document.

Done

9. Check format – January 25 2011 to January 25, 2011 (throughout the document)
Done

FHWA response: The noted correction does not appear to be reflected in the revised conformity determination document.

Done, 2 more commas were added

10. Why was Appendix 17 removed from the website? **TCEQ requested it because it was never approved by the consultation partners.**

FHWA response: Okay

FHWA Comments received on 7/25/2012 – H-GAC answers in red (Appendix 15 – 08-10-202).

Draft Conformity Determination:

20. Page 11: Note “1” on this page indicates that a complete list of project revisions is included in Appendix 12. It is noted that Appendix 12 includes a revised project listing for the 2035 RTP Update; however it does not appear to indicate which projects are being revised as part of this amendment. Please clarify or revise this note as appropriate.

a. The note erroneously refers to Appendix 12 (project listing) instead of Appendix 18 (Status of Non-Exempt Projects). The text has been updated to read: “This list is not exhaustive of all project revisions that affect conformity. A complete listing of such revisions is contained within Appendix 18.”

FHWA response: Okay.

21. Page 12: The sixth sentence in the second full paragraph on this page should be revised concerning the need for an emissions analysis to be conducted for each year with an emissions budget and the attainment year (i.e., “should” versus “may” be conducted).

Correction done

FHWA response: Okay.

22. Page 13: The discussion in the first full paragraph on this page indicates that the subject conformity determination is intended to address the 2035 RTP Update amendments, the FY 2011-2014 TIP and the FY 2013-2016 TIP. It is noted that a revised FY 2011-2014 TIP or the FY 2012-2016 TIP do not appear to have been submitted with the conformity determination documentation. Based upon information provided in Appendix 18 (Status of Non-Exempt Projects), it appears that substantial revisions are necessary to the FY 2011-2014 TIP/STIP based upon the proposed amendments to the 2035 RTP Update. Please provide clarification concerning H-GAC's intent regarding the revision of the FY 2011-2014 TIP/STIP consistent with the proposed RTP amendments. It is noted that conformity of the 2013-2016 TIP will be reviewed in conjunction with the review and approval of the FY 2013-2016 STIP.

- a. Following additional discussion, we have identified all conformity-related modifications that were not previously submitted for revision to the 2011-2014 STIP. We have processed Amendment #57 to the 2011-2014 TIP, which has been submitted to TxDOT for inclusion in the August 2012 Quaterly STIP revisions. Please note that these modifications are not expected to affect any pending or planned requests for federal action on projects subject to 40 CFR §93.104(d).*
- b. With regard to the 2013-2016 TIP, we accept that only one conforming TIP may exist at any time [§93.114 (a)] and expect a Federal action to find the 2013-2016 TIP to be in conformity will occur concurrent with approval the 2013-2016 Statewide TIP. We maintain that this transportation conformity determination and associated regional emissions analysis satisfy the requirement that the new TIP is demonstrated to conform prior to MPO approval.*

FHWA response: Okay.

23. Page 14: Please confirm that Figures 1 and 2 on this page have been updated to reflect the revised regional emissions analysis (i.e., based upon revisions to MOBILE emission model inputs). A similar comment applies to Figures 1 and 2 in the Executive Summary.

Done

FHWA response: Okay. Please see related comment "19" below.

24. Page 23: The discussion in the first full paragraph on this page provides information concerning the expenditures included in the 2035 RTP Update. Are

the funding estimates noted in this discussion reflective of the 2035 RTP Update or the 2035 RTP Update amendments? Please clarify.

- a. This conformity reflects additional revenues that were not anticipated in the 2035 RTP Update approved by the Transportation Policy Council in October 2010. These additional revenues, totaling \$1.4 billion, are the result of allocations from state and federal funding programs as well as additional local financial commitments, bringing the total estimate of reasonably available revenues to \$87.1 billion. The net effect of revisions to planned expenditures reduces the total by \$1.7 billion to \$84.0 billion, primarily a result of updated costs estimates and the cancelation of projects on local arterial roadways.*
- b. The text has been updated to reflect the 2035 RTP Update amendments approved by the Policy Council at its April 27, 2012 meeting.*

FHWA response: Okay

25. Page 23: The discussion in the second full paragraph on this page provides information concerning the expenditures for emission reduction programs. Is the funding information noted in this discussion reflective of the 2035 RTP Update or the 2035 RTP Update amendments? Please clarify.

- a. The text has been updates to reflect the 2035 RTP Update amendments approved by the Policy Council at its April 27, 2012 meeting:*
 - i. On-road mobile transportation is one of several broad categories contributing to the formation of ground-level ozone. To meet the federal air quality standard in this region, reductions are needed from all source sectors. The 2035 RTP Update includes continued funding for regional mobile source emission reducing programs at or above current funding levels (approx. \$10 million per year) through 2035. These programs currently include:*
 - 1. Clean Vehicle/Clean Cities – Engine replacement, vehicle replacement and alternative fueling infrastructure;*
 - 2. Regional Vanpool;*
 - 3. Commute Solutions – Telework Initiative, Transit Services Pilot Program, NuRide and other ride-sharing services; and*
 - 4. Clean Air Action – Outreach and marketing to increase program participation, recognition of private and public sector partners.*

FHWA response: Okay. The text of the response (above) does not appear consistent with the revised conformity determination document (i.e., “The 2035

RTP Update ...”); however, the revision to the conformity determination document appears appropriate.

26. Page 25: The discussion in the second full paragraph on this page provides information concerning the development of demographic forecasts for the H-GAC region. Please provide information, as appropriate, concerning actions taken to review/confirm demographic forecasts for the H-GAC region in conjunction with the 2009 travel model validation effort.

The regional demographic (population and employment) forecast was formally adopted in February 2005 after more than a year of work by the Forecast Advisory Committee. This forecast was used in all travel demand travel runs, including air quality budget development and all Conformity findings since 2005. However as part of this Conformity the 2009 household estimate was calculated based on 2010 Census household data. It was deemed based on the accuracy of the original 2009 forecast to the 2009 backcast data, that no adjustment to future years (2014, 2017, 2018, 2025 and 2035) was required.

FHWA response: The noted response does not appear to be reflected in the revised conformity determination document. Please revise as appropriate.

HGAC – Text modified accordingly.

27. Page 25: Does the discussion in the third paragraph on this page and in Table 3, reflect information consistent with the 2009 travel demand model validation effort? If not, the discussion and Table 3 should be revised to reflect consistency with this effort.

This table does reflect the data used in the travel demand model runs.

FHWA response: Okay

28. Page 26: The discussion in the first paragraph on this page should be revised to reflect the 2014 and 2017 analysis years and the 2009 travel model validation as appropriate.

Text modified accordingly.

FHWA response: Please clarify the intent of the first full sentence in the first partial paragraph on page 27, concerning the 2009 base year network being utilized for comparison purposes (i.e., what results and what comparisons are being referenced).

HGAC – Response was poorly worded. This discussion was intended to clarify how the HPMS Adjustment is calculated. Text modified accordingly.

29. Page 26: The discussion in the second full paragraph on this page indicates that the procedures used to develop time-of-day travel and speed inputs are consistent

with those used in the development of the RFP SIP. Should this discussion also refer to the AD SIP? Please clarify or revise as appropriate.

Text modified accordingly.

FHWA response: Okay.

30. Page 26: The discussion in the third paragraph refers to the regional roadway network utilized for each of the four analysis years. However, it appears that a regional emissions analysis was conducted for more than four analysis years. Please clarify or revise this discussion as appropriate.

Text modified accordingly.

FHWA response: Okay.

31. Page 26: The discussion in the fifth paragraph on this page refers to a comparison of 2009 estimated regional VMT to 2005 HPMS estimated VMT. It is our understanding that 2009 estimated regional VMT was compared to 2009 HPMS estimated VMT. Please clarify or revise this discussion as appropriate.

Text modified accordingly.

FHWA response: Okay.

32. Page 29: The discussion in the seventh paragraph on this page refers to the 2005 AM and PM peak-period assignments and 2005 observed directional speeds. Is this consistent with the 2009 travel demand model validation? Please clarify or revise as appropriate.

The speed model was last validated to actual speeds was in 2005. The HGAC speed model outputs were recently compared to Inrix speeds by AECOM as part of the activity model development; it was deemed that the speed model output matched Inrix speeds.

FHWA response: Is this response intended to indicate that the speed model validation is not intended/required to be consistent with the travel demand model validation (year - 2009)?

HGAC – The speed model itself was validated during model estimation in 1998. The speeds produced by the model are compared to speed data on a regular base. This discussion was intended to show that the speed model matches INRIX data and will, in fact, be used without any change in the Activity Based Model that HGAC is now developing

33. Page 30: The second sentence in the last paragraph on this page indicates that VMT is expected to reach 201.9 million in 2025. Based upon the information in Table 5, it appears that this reference should reflect 2035.

Text modified accordingly.

FHWA response: Okay.

34. Page 30: The discussion in the last paragraph on this page refers to a Pre-Analysis Consensus Plan in Appendix 17. It is noted that the conformity documentation does not include an Appendix 17 or Pre-Analysis Consensus Plan. Please clarify or revise this discussion as appropriate.

Text modified accordingly.

FHWA response: Okay.

35. Page 30: The discussion in the last paragraph on this page refers to HPMS and seasonal factors applied to VMT. What were the HPMS and seasonal factors applied to VMT? Recommend that the discussion be revised to reflect the HPMS and seasonal factors.

Text modified accordingly.

FHWA response: Okay. Please confirm that the seasonal adjustment factor noted in the revised conformity determination document (page 31) is not intended to correspond with Non-summer Weekday Travel Adjustment Factor noted on page 27. Also, the 2011 VMT noted in Table 5 on page 31, does not appear appropriate. Please explain or revise as appropriate.

HGAC – Indeed, the seasonal adjustment mentioned on page 31 is not ANSWT, but is AADT. The seasonal adjustment was developed by TTI for use in the air quality modeling for this Conformity analysis. The VMT data for all analysis years were updated to reflect recent network changes. The 2011 VMT was inputted into the document incorrectly.

36. Page 39: The discussion in the first paragraph on this page discusses intrazonal trip VMT developed by the travel demand model. Are HPMS and seasonal factors applied to the intrazonal VMT? Please clarify.

Both seasonal and HPMS adjustments are applied to all VMT, including intrazonal VMT. These adjustments are made to intrazonal VMT since HPMS VMT estimate is a snapshot of total regional VMT that includes, in theory, intrazonal VMT.

FHWA response: Okay.

37. Page 39: The discussion in the last paragraph on this page and the associated Table indicate the application of post process adjustments. What is the basis for

the “temp/humidity” adjustment noted in the Table (e.g., reduction of 1.71 tons per day, only applied to NOx)? Please explain.

Text modified as requested

FHWA response: The response provided does not appear appropriate for the noted comment. Please explain.

H-GAC already explained what the “temp/humidity” adjustment is in the text.

38. Page 40: Are the emissions results noted in Table 11, consistent with the revised emissions analysis (i.e., based upon revisions to MOBILE emission model inputs).

Yes

FHWA response: It is noted that the emission results indicated in the revised conformity determination document do not appear consistent with the emission results indicated in the April 19, 2012 Conformity Consultation call summary in Appendix 15. Please ensure that the emission results noted in the revised conformity determination reflect the updated/appropriate emission results.

Appendix 12 (2035 RTP Update Project Listing):

2. General: Please provide a summary demonstrating fiscal constraint for the 2035 RTP Update amendments (i.e., estimated Federal, State and Local revenues and project expenditures).
 - a. *A summary demonstrating fiscal constraint for the 2035 RTP Update amendments is attached.*

FHWA response: Okay.

Appendix 13 (TCM Timely Implementation):

5. General: It is noted that many of the TCM projects reflected in Appendix 13 indicate completion dates prior to 2012. What is the basis for the TCMs noted in Appendix 13 (i.e., in what SIP(s) were the TCM commitments included)? For what year are the emission reductions noted in Appendix 13 calculated (i.e., 2018 attainment demonstration)?
 - a. **The TCMs for the 1-Hour Ozone SIP approved in 2001 were substituted during the inter-agency conformity consultation process in 2005. These substitutions were made within categories and were deemed adequate to meet previous TCM commitments. The TCMs reported in this appendix are commitments for the Attainment Demonstration 1-hr Ozone standard SIP, which was approved by EPA on 9/6/2006, and were estimated for the 2007 attainment deadline.**
 - b. **Control measures proposed during development of the Attainment Demonstration SIP for the 8-hr ozone standard are not reported on in the appendix as the SIP has not been approved by EPA.**
 - c. **H-GAC has maintained a continuous record of several of these projects, which have been documented and reported upon on a rolling basis for five years or longer. During the next conformity process, projects implemented for more than five years will be retired.**

FHWA response: Okay. It is understood that emissions credits for the TCMs noted in Appendix 13 are not being utilized for this conformity determination. However, based upon the August 9, 2012 interagency conference call, reporting on the timely implementation of applicable TCMs is required. It is also understood that Appendix 13 includes all applicable TCMs and indicates timely implementation of these TCMs.

6. Page 2: The Draft Conformity Determination indicates that TCM emissions credits were not applied to the subject conformity determination (page 34, Section 5.1.1). However, the discussion in the first paragraph in Appendix 13 indicates that TCM emissions credits are applied to the subject conformity determination. Please explain or revise as appropriate.

The text has been corrected as follows: “Note this appendix demonstrates timely implementation of TCMs, but TCM emission credits are not applied to this conformity

FHWA response: Okay.

7. Page 15: What are the traffic engineering improvements related to projects MPO ID 270 and 9720 noted in the “Traffic Engineering” category?
 - a. ***These projects included TSM improvements during reconstruction of the US 59 S frontage roads. Credit for HOV elements was committed as a separate control strategy for the 1-Hour Ozone SIP approved in 2001.***

FHWA response: Okay.

8. Page 18: Project MPO ID 7270 is included in the “turn lanes” category of Traffic Flow Improvements. However, the project description provided does not appear to reflect the implementation of turn lanes. Please explain or revise as appropriate.
 - a. ***The referenced project describes the physical improvements resulting in the addition of a turn lane (widen pavement and restripe).***

FHWA response: Okay.

FHWA Comments Regarding Appendix 12 (transmitted by H-GAC on 08-13-2012):

1. MPO Project ID 1933 (CSJ 0114-12-007): The revision indicated is a change in the project description to reflect the construction of two 2-lane non-continuous frontage roads. However, the network modeling appears to indicate the construction of continuous frontage roads. Please clarify.

Model network has been modified accordingly and emission analysis has been recalculated for all milestone/analysis years.

2. MPO Project ID 12624: The revision indicated is a change in project limits (Parklane Boulevard versus US 59). However, the network modeling appears to indicate US 59 as the project limit. Please clarify.
 - a. Parklane Blvd is proximate to the US59 S frontage road. This change in limit does not alter the functional characteristics of the roadway or project, but better reflects the limits of construction. No adjustment to the model network or emissions quantification is required.

FHWA Comments Regarding Appendix 18 (transmitted by H-GAC on 08-13-2012):

1. MPO Project ID 15592: Revision in Appendix 12 indicates a change in county from Harris to Montgomery; however this change does not appear to be reflected in Appendix 18. Please clarify.
 - a. The change to Montgomery Co. is correct. Appendix 18 has now been updated to reflect this correction.
2. MPO Project ID 15593: Revision in Appendix 12 indicates a change in county from Harris to Chambers; however this change does not appear to be reflected in Appendix 18. Please clarify.
 - a. The change in Chambers Co is correct. Appendix 18 has now been updated to reflect this correction
3. MPO Project ID 15594: Revision in Appendix 12 indicates a change in county from Harris to Chambers; however this change does not appear to be reflected in Appendix 18. Please clarify.
 - a. The change in Chambers Co is correct. Appendix 18 has now been updated to reflect this correction

TCEQ comments August 30, 2012

Cover page, because this is not the same version as the one e-mailed to us on August 9, please revise the date on the cover page, to help us with version control- Done

Cover page and throughout, isn't the 2011-2014 TIP also "amended" – should this be reflected in the title to help with version control? I think you should add the word Amendment throughout the document where applicable -- 2035 RTP Update **Amendment** – the text has been modified

page 2, it might be helpful if the reviewing partners took a look at the draft Board Resolution – the resolution will be included when we will pdf the document

page 5, CMAQ stands for Congestion Mitigation and Air Quality Improvement Program; also, there have been two more federal surface transportation reauthorization statutes enacted since TEA21 _done

page 9, I don't understand the February 1, 2011 date for a FHWA conformity approval; I think the February date needs to come out? – FHWA sent this correction since a TIP cannot conformed if is not approved first

page 9, Air Quality Conformity finding - Done

page 9, change may have been moved to **were moved** (if true) - done

page 10, correct conformity requirements, ...projects in nonattainment and maintenance areas - done

page 10, correct conformity requirements, ...last bullet ... same correction as above - done

page 11, conformity requirements, ...budget test if **an adequate or** approved SIP budget...-done

page 15, section 1.3, in nonattainment and maintenance areas - done

page 15, section 1.3, less than **or equal to** -done

page 16, section 1.6, Pre-Analysis Plan, in my opinion, you could leave this whole section out -

page 17, top of the page, if true, please clarify that the amended documents are the 2011-2014 TIP and the 2035 Plan – I don't think the 2013-2016 TIP is amended – text changed accordingly

page 17, overview, should this say as amended? The 2035 Regional Transportation Plan **as amended** considers...- done

page 17, submittal frequency, an EPA finding of adequacy also triggers conformity - done

page 18, item number 2, **the MPO** - done

page 20, livable centers, 2035 RTP Update **Amendment** - done

page 22, third paragraph, 2035 RTP Update **Amendment** - done

page 23, land use model, phase I, **2010 Census?** *****

page 24, fix typos in large paragraph –done

page 24, table 3, source **September 2010?** is this date correct? *****

page 26, transit system, does “METRO’s current Regional Transit Plan” have a date? If so I think you should state it. *****

page 27, table 4, should Fort Bend and Montgomery counties percent change be shown as negatives? *****

page 32, table 5, how come the VMT is quite different than the VMT emailed August 9 ? – Table 5 had many typos: the VMT for 2011 and 2014 were together in one line, as a consequence the VMT for 2017 was on 2014 and the same error was repeated on the whole table for all the other years.

page 33, CMAQ, **MAP21** – MAP21 was not used on the plans

FHWA Follow-up Comments (September 7, 2012)

Draft Conformity Determination (transmitted by H-GAC on August 30, 2012):

1. Page 29, Travel Model Results: Please verify reference to 201.9 million VMT in 2035, noted in this discussion (i.e., Table 5 indicates 206.5 million VMT in 2035).

Text corrected.

Appendix 12 (transmitted by H-GAC on August 13, 2012):

3. MPO Project ID 12624: The revision indicated is a change in project limits (Parklane Boulevard versus US 59). However, the network modeling appears to indicate US 59 as the project limit. Please clarify.

H-GAC response: Parklane Blvd is proximate to the US59 S frontage road. This change in limit does not alter the functional characteristics of the roadway or project, but better reflects the limits of construction. No adjustment to the model network or emissions quantification is required.

FHWA response: Please provide additional clarification concerning the Parklane Boulevard project limit. It is noted that the network modeling appears to indicate widening of the roadway (Dairy Ashford Road) from Julie Rivers Drive to the northbound US 59 frontage road.

H-GAC Response (9-10-12): While Parklane Blvd is proximate to the southbound US 59 frontage road, the model coding showing the widening of Dairy Ashford through to the northbound frontage road was in error.

H-GAC has re-run the model for the 2018 milestone year to identify the potential impact of this error on regional travel demand. H-GAC believes the following results indicate the network error has a negligible effect on regional travel demand and would have a de minimis impact on the regional emissions analysis:

2018 Network Effects

Regional 24-hour VMT: -3,797 miles or -0.0021%

Regional 24-hour VHT: 87 hours or 0.0018%

In addition, based on input from the project sponsor it is clear the above referenced project is intended to relieve delay at the intersection of Dairy Ashford and US 90A. Given this purpose and the limited length of the project (< .75 mi), H-GAC asserts that the project should not be considered “regionally significant”

under the current definition (see section 2.4.1) and future conformity determinations will show this revised status (NRS).

