



***The Anthropogenic Precursor Culpability
Assessment (APCA) Component of the
Technical Analysis Support Document by
the TCEQ Regarding the EPA Response to
2008 Ozone Designation Recommendations***

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APCA Applied to Matagorda County

- Overview of APCA
- 2005/2006 HGB Photochemical Modeling
- APCA Results for Matagorda County



Overview of APCA

- APCA is one of several ozone source apportionment modeling techniques used to track the fate of ozone precursors emissions (e.g., oxides of nitrogen, volatile organic compounds) and the ozone produced and destroyed by these emissions
- The APCA technique is implemented in conjunction with the CAMx photochemical model to apportion the ozone at a selected receptor (i.e., monitoring site) to the specified emission sources (e.g., points) in specified source regions (e.g., Matagorda County)

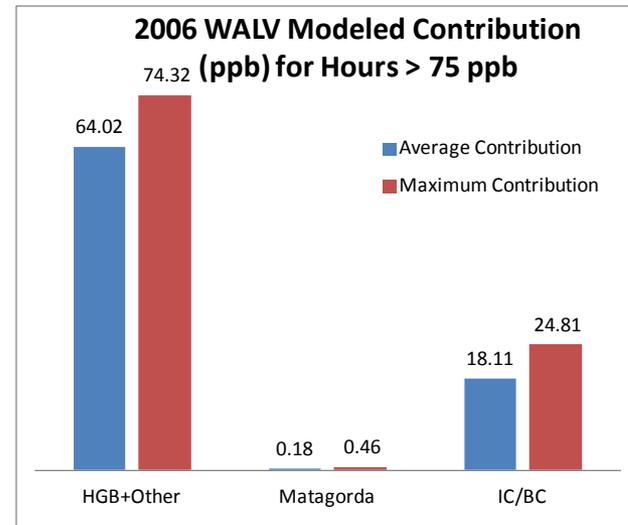
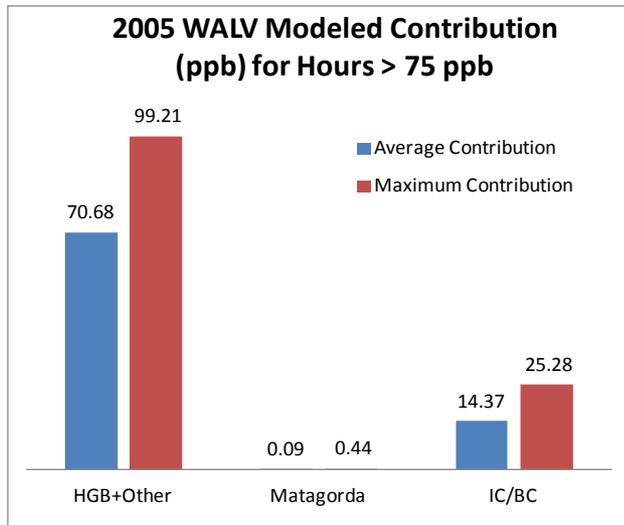
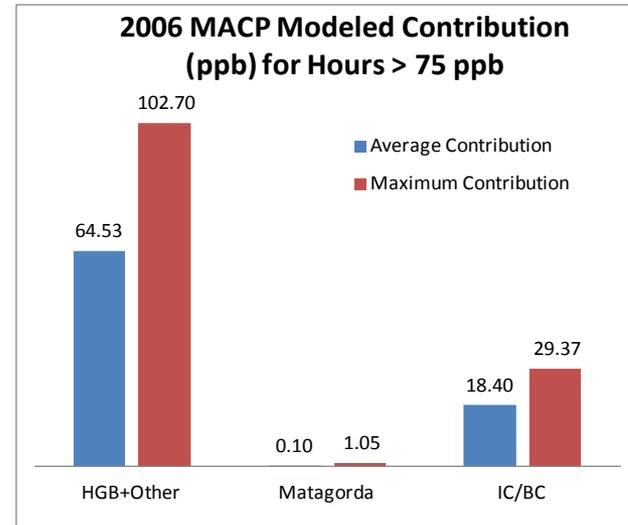
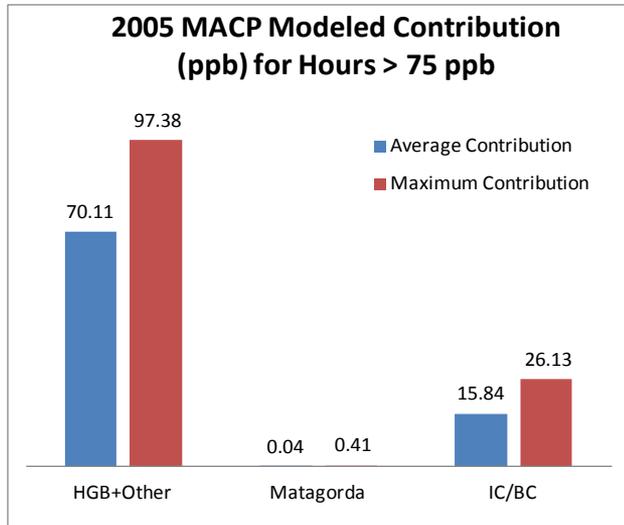


2005/2006 Houston-Galveston-Brazoria (HGB) Photochemical Modeling

- The 2005/2006 baseline photochemical modeling for the HGB nonattainment area, used for the March 2010 Adopted SIP, is the most recent fully validated modeling that includes Matagorda County emission sources
- APCA was implemented with this baseline, configured with:
 - Two emission source categories (anthropogenic and biogenic),
 - Three sources regions (Initial & boundary conditions, Matagorda County and HGB + Other), and
 - Four monitoring sites:
 - Manvel Croix (MACP, CAMS 84),
 - Wallisville (WALV, CAMS 617),
 - Northwest Harris County (HNWA, CAMS 561), and
 - Texas City (TXCT CAMS 620)



APCA Results for Matagorda County





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