

# HGB SIP Modeling Update

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Second Interim 2005 Episode Modeling

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# CAMx Ozone Modeling in SIP Development

## The Big Picture

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Base Case

Day-specific meteorology and emissions;  
replicate what actually happened

Baseline Case

Day-specific meteorology and Typical emissions;  
used in RRF to predict future design values

Future Base Case

Apply future growth + on-the-books controls  
to estimate future ozone

Control Strategy Testing

Determine control strategies that will  
effectively reduce ozone

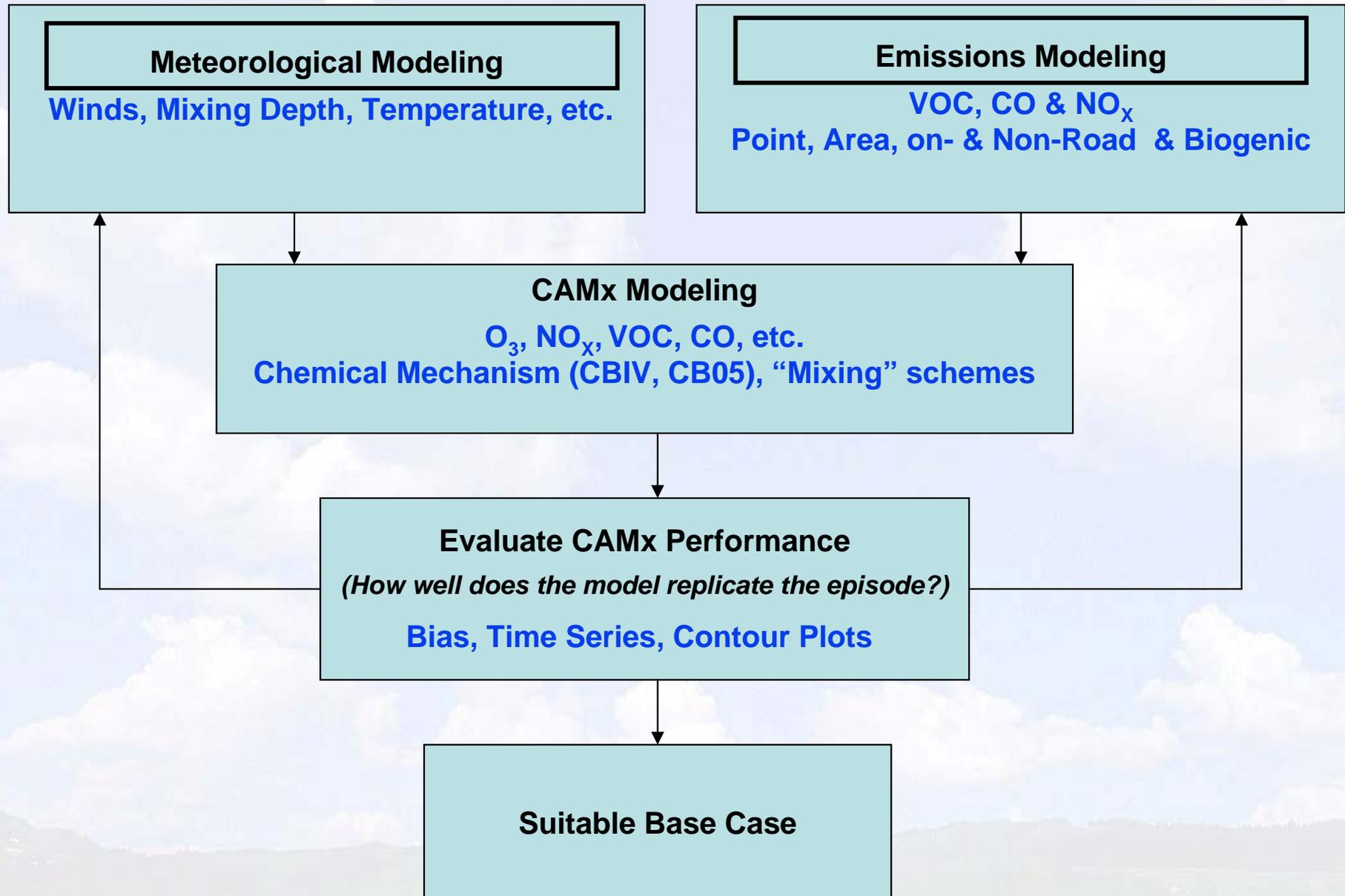
SIP

Document modeling procedures



# CAMx Ozone Modeling in SIP Development

## Base Case – Historical Episode Replication





# Second Interim 2005 Episode Modeling

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- Second Interim Met Modeling for the 2005 Episodes
- Second Interim EI Modeling for the 2005 Episodes
- Other Inputs for the 2005 Episode Modeling



## Second Interim Met Modeling for 2005 Episodes

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Met updates and evaluations currently underway:

- Update the surface characteristics with new UT-CSR land use/land cover (LU/LC) data
- Evaluate and select TAMU or STI-TCEQ observation-nudging data
- Evaluate and select UH-SST or TCEQ-SST hourly sea surface temperatures

(Note: A new monitored vs modeled wind trajectory analysis has been developed for additional evaluation of the met-modeling )



## Second Interim EI Modeling for 2005 Episodes

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The following modeling EI updates and evaluations are currently underway:

- Update the episode-specific point sources with the new tank landing loss emissions data
- Adjust the VOC to include ethane, which is a CB05 species
- Complete the CCEDS sensitivity analysis
- Complete the ISC/PSCF EI-reconciliation (extra-alkenes)
- Evaluate episode-specific wildfire emissions (TFS vs MODIS)
- Compile 2005 baseline modeling emissions



# Other Inputs for the Second interim 2005 Episode Modeling

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Development of episode-specific boundary conditions

- Boundary conditions extracted from the GEOS-CHEM model output
- Boundary conditions extracted from CENRAP model output which uses boundary conditions extracted from the GEOS-CHEM model output.