

Technical Analysis Plan & Schedule 2007-08

**Implementation Workgroup
December 6, 2006**



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Topics in this talk

- ✔ **What has been completed?**
- ✔ **How does BART fit into Regional Haze analysis?**
- ✔ **Status of the regional haze modeling analysis process**
- ✔ **Key Information for Future**
 - **Limited modeling resources compared to past [\$ reduced]**
 - **Datasets in good shape for assessing regional visibility improvements from controls:**
 - **Results of specific BART engineering findings**
 - **% changes to other source categories**

What has been completed?

☛ **“Base02b” - Actual emissions from 2002**

- **Used for Model Performance Evaluation (MPE) statistics**
– EPA requirement
- **Compared to monitored values**
- **Completed Fall 2005**

☛ **Results:**

- **36 km grid resolution**
- **Air quality impacts at each Class I area**
- **Light extinction - species and total visibility**
- **Natural vs. Anthropogenic**

What has been completed?

- **“Plan02c” – representative of 2000-04 Baseline Planning Period**
 - Used for analyzing change from 2000-04 to 2018 for regional haze
 - 2000-04 fire EI data averages fire activity levels by state over 5-year period, leaves fires at same time and place
 - EGU monthly/daily temporal profile averages by state
 - Completed May 2006
- **Results:**
 - 36 km grid resolution
 - Air quality impacts at each Class I area
 - Light extinction - species and total visibility
 - Natural vs. Anthropogenic

What has been completed?

- ☛ **“Base18b” – 2018 Base Case Emissions = “rules on the books” & activity changes from population growth**
 - Other piece of change from 2000-04 to 2018 for regional haze
 - Starting point for control strategy analyses
 - Completed June 2006
- ☛ **Factors in modeling 2000-04 to 2018 base case:**
 - Held constant: Wildfire, Windblown Dust, Offshore Shipping, 1999 Mexico, & 2000 Canada EI data
 - No BART/BtB control programs included
 - EGU temporal profile averages by state
- ☛ **Results:**
 - 36 km grid resolution
 - Air quality impacts at each Class I area
 - Light extinction - species and total visibility
 - Natural vs. Anthropogenic

What has been completed?

- **Preparation to put source-by-source BART emissions controls provided by states/EPA into regional emissions analysis**
 - **State-level spreadsheets of 2018 point source emissions data**
 - **Will be used to:**
 - **Perform point source emissions analysis – changes from applying BART**
 - **Identify which individual process-level emissions data will have BART controls applied based on engineering analysis for eventual modeling**
- **Additional regional scale analysis on TSS**
 - **Source apportionment**
 - **CAMx PSAT for SO_x and NO_x emissions**
 - **CMAQ Organic Aerosol Tracer results in preparation**
 - **Weighted Emissions Potential for all emissions**
 - **Dust transport “Causes of Dust” analysis by DRI – DEJF webpage**
 - **Fire effects analyses**
 - **2018 fire forecast scenarios**
 - **Impact of small fires on Class I areas**
 - **Fire plume rise algorithm**

How does the **BART** process fit into **Regional Haze** analysis & planning?

Present

2018 base case EI & modeling results (includes all BART sources “as is”)

Each State/EPA deciding “subject-to-BART” using CalPuff modeling

Engineering analyses determine specific emissions reductions

Each State/EPA decides visibility improvement “subject-to-BART” using CalPuff modeling + factors

Each State/EPA permits BART/BtB emissions limits

“Regional”
BART
Emissions
Analysis

Control Strategy Emissions Data [known/possibilities/updates]

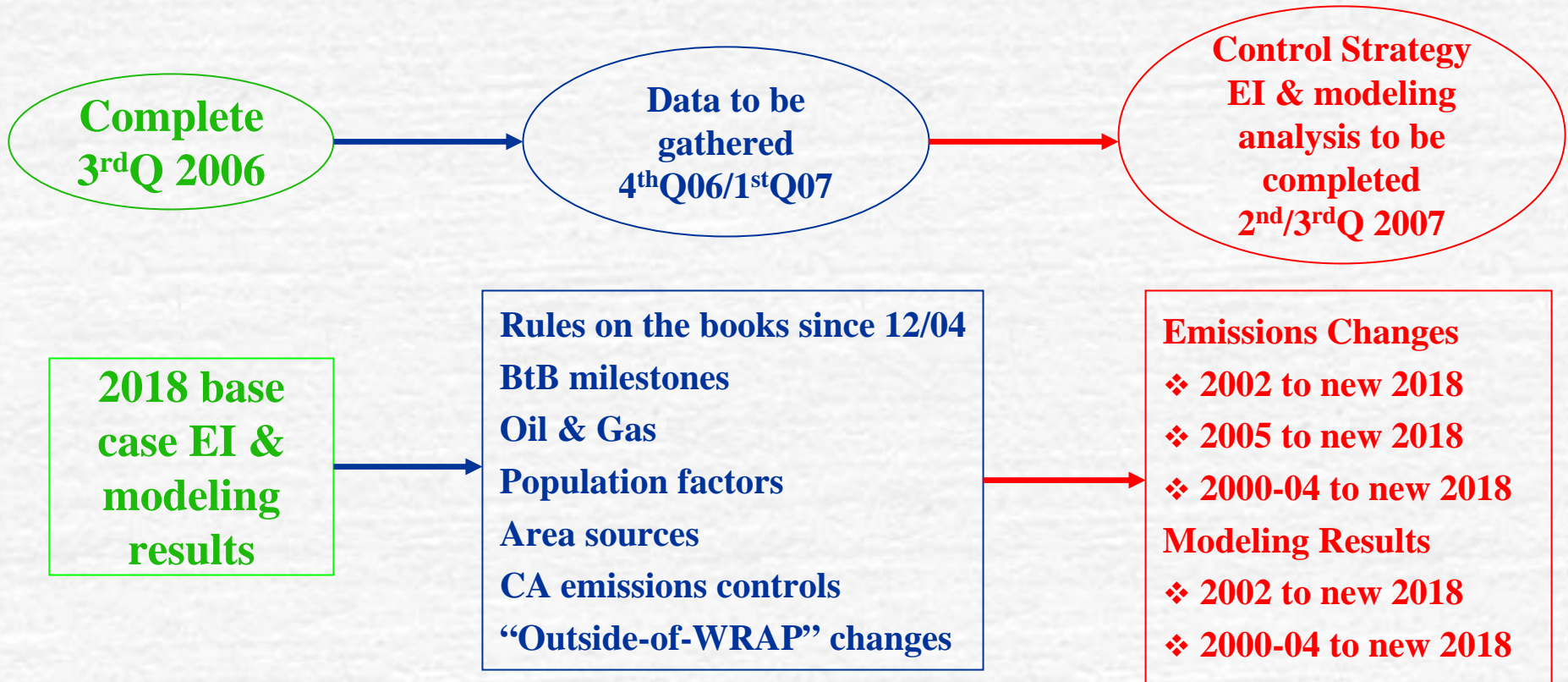
- Rules on the books since 12/04
- §309 Better than BART milestones
- Oil & Gas controls?
- Population factors adjustments
- Area sources QA/adjustments
- CA emissions controls proposals
- “Outside-of-WRAP” changes

Results of regional haze control strategy modeling for reasonable progress analysis

- Air quality impacts at each Class I area
- Light extinction - species & total visibility
- Natural vs. Anthropogenic
- Scaled source apportionment as before (state/source category)

Future

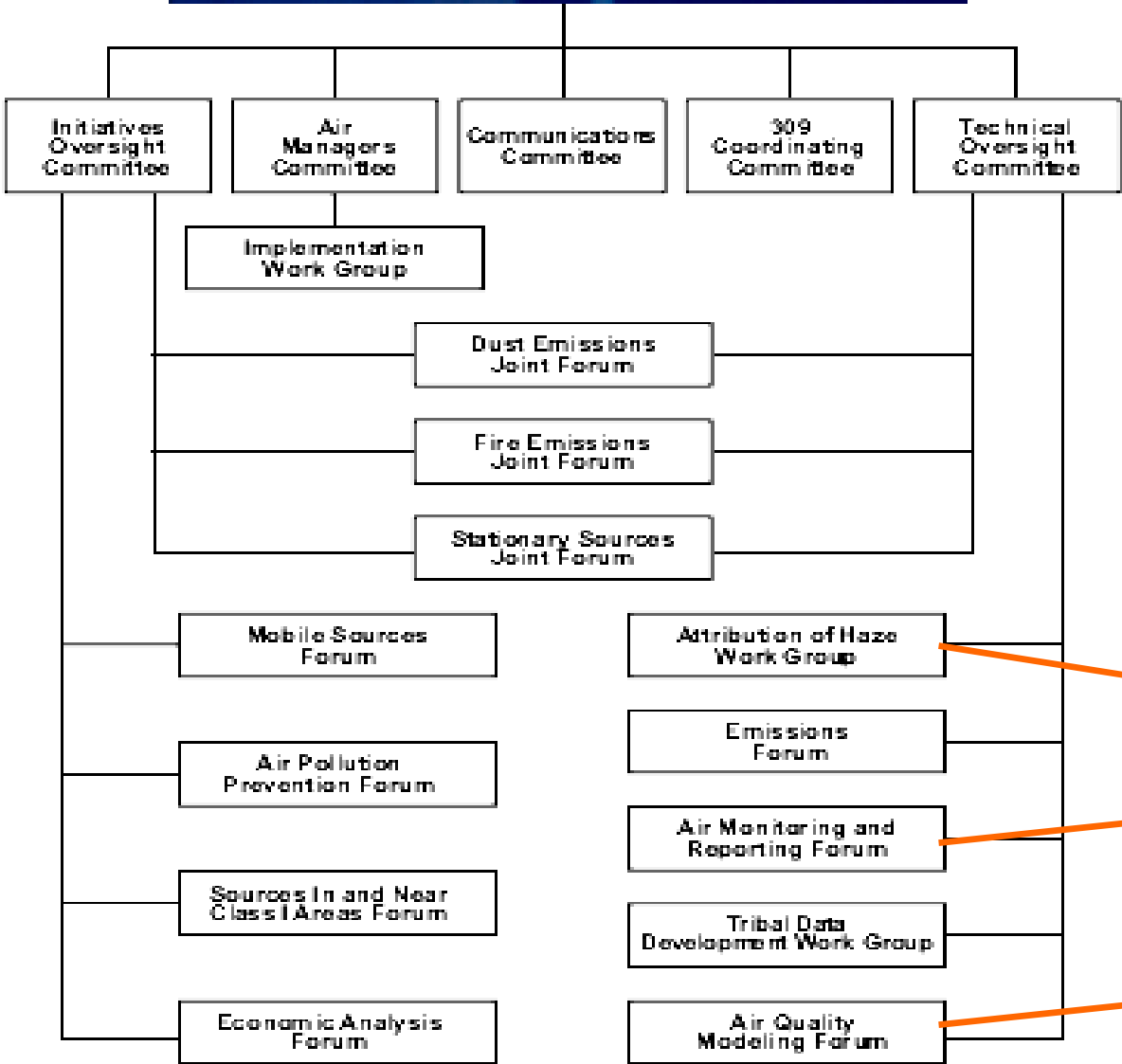
Status of the regional haze modeling analysis process



Present



Future



Combined into Technical Analysis Forum in January 2007