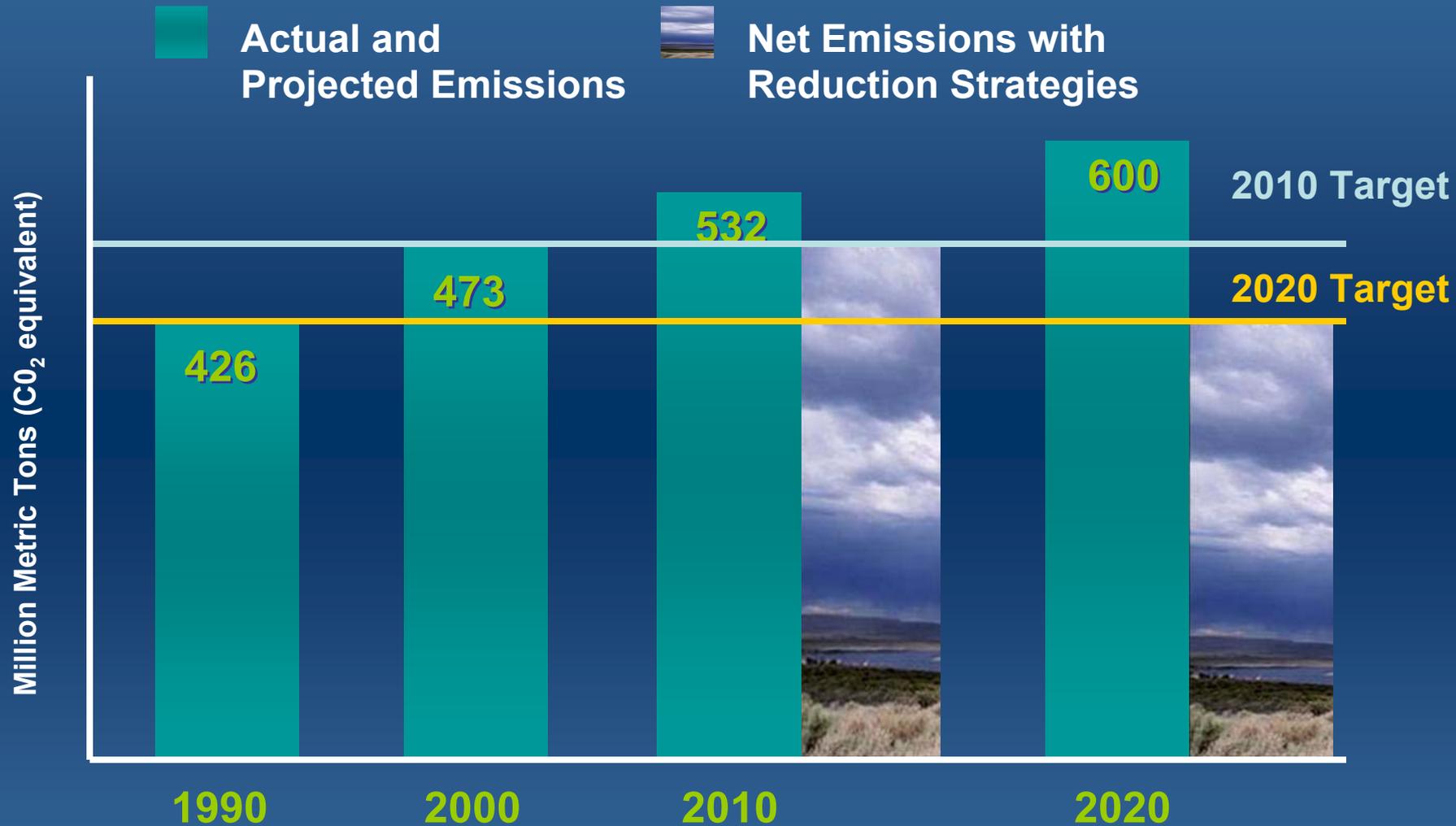


# Putting Plans Into Action: The Role of MPOs in Greenhouse Gas Planning and Compliance



**Haagen-Smit Symposium**  
**Panel on Regional Perspective**  
**April 9, 2008**

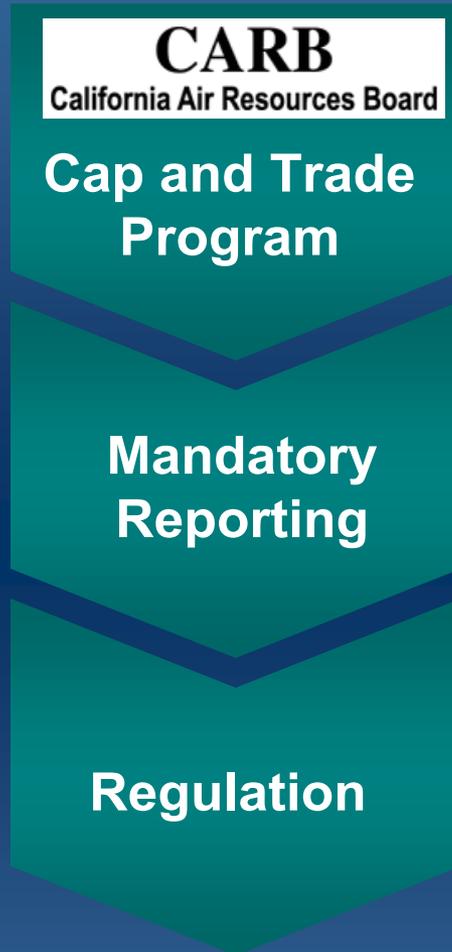
# AB 32: Reversing the Trends



Source: California Environmental Protection Agency, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006.

\* Baseline inventory estimates, does not include international marine bunker fuels

# Command and Control



# Creativity and Flexibility

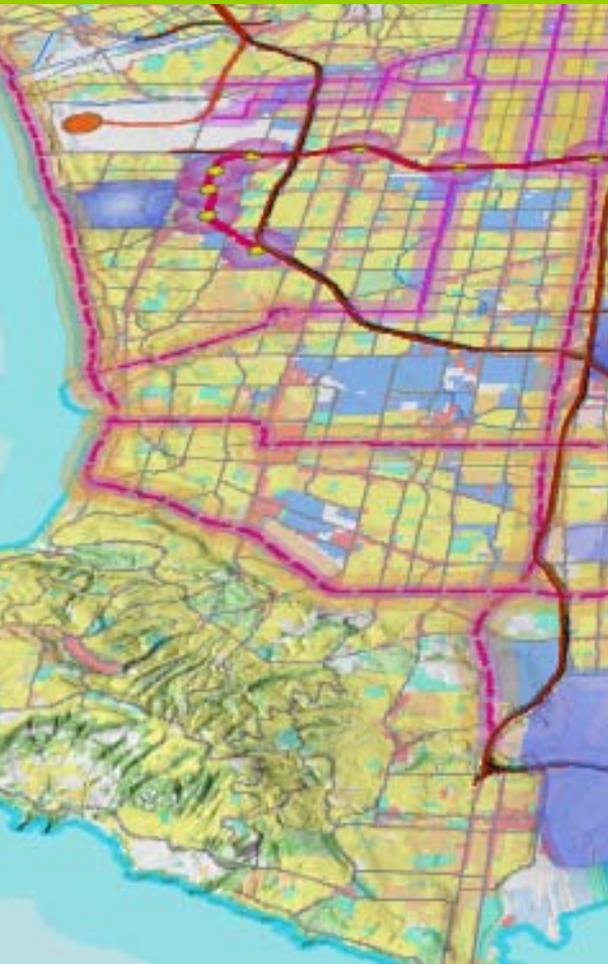
**CARB**  
California Air Resources Board



- Transportation**
- Land Use and Housing**
- Solid Waste**
- Noise**
- Air Quality**
- Open Space**
- Energy**
- Water Resources**

# Implementing CARB Targets

Regional  
Blueprints



Analytical  
Tools

$$RMSE = \sqrt{MAD^2 + MAD}$$

$$MAD = \frac{1}{n} \sum_{i=1}^n |y_{t+r;t} - (\hat{a}_t + b_t)|$$

$$\hat{a}_t = \alpha D + (1 - \alpha) \hat{a}_{t-1} + b_{t-1}$$

$$MAPE = \frac{1}{n} \sum_{i=1}^n \frac{|y_{t+r;t} - (\hat{a}_t + b_t)|}{y_{t+r;t}}$$

$$MAPE = \frac{1}{n} \sum_{i=1}^n \frac{|y_{t+r;t} - (\hat{a}_t + b_t)|}{y_{t+r;t}}$$

CEQA  
Compliance



# Regional Blueprints

- Outlines a preferred pattern of growth
- Results-oriented
- Built on partnerships and mutual benefit with member agencies



$$f_{t+1;t} = \frac{\sum_{i=t-p+1}^t D_i}{p}$$

$$= f_{t+r;t}$$

$$RMSE = \sqrt{MSE}$$

$$t+r;t \quad (\hat{a}_t + b_t) \quad t+r-m$$

$$MAD = \frac{\sum_{i=1}^n |e_i|}{n}$$

$$\hat{a}_t = \alpha D + (1 - \alpha)$$

$$(\hat{a}_{t-1} + b_{t-1}) \quad |e_i|$$

$$MAPE = \frac{\sum_{i=1}^n \frac{|e_i|}{D_i}}{n}$$

# Analytical Tools

- Modeling capacity
- New tools
- Air quality plans
- Spatial analysis
- Transportation, noise and air quality simulation modeling
- Quantitative and qualitative techniques

# CEQA Compliance

- Region-wide assessment
- Identifies cumulative environmental effects
- Broad policy alternatives
- Program-wide mitigation measures
- Supports site-specific analysis



# Looking Ahead

- **Planning for regional transportation needs, environmental impact, housing and future growth**
- **AB 32 mandates**
- **Proactive approach**
- **More partnership**
- **Reward results, not mandates**
- **More complete and cooperative plans**



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