

Status Report On PM10 Redesignation Requests

Mobile Source Committee
July 24, 2009

Item No. 3

Background

- Daily 24-hour PM10 concentrations in the Basin and Coachella Valley meet the federal standard
- Staff is preparing a request to US EPA to redesignate the Basin and Coachella Valley as attainment for PM10
- A maintenance plan as well as updated transportation conformity budgets will be forwarded with the request.

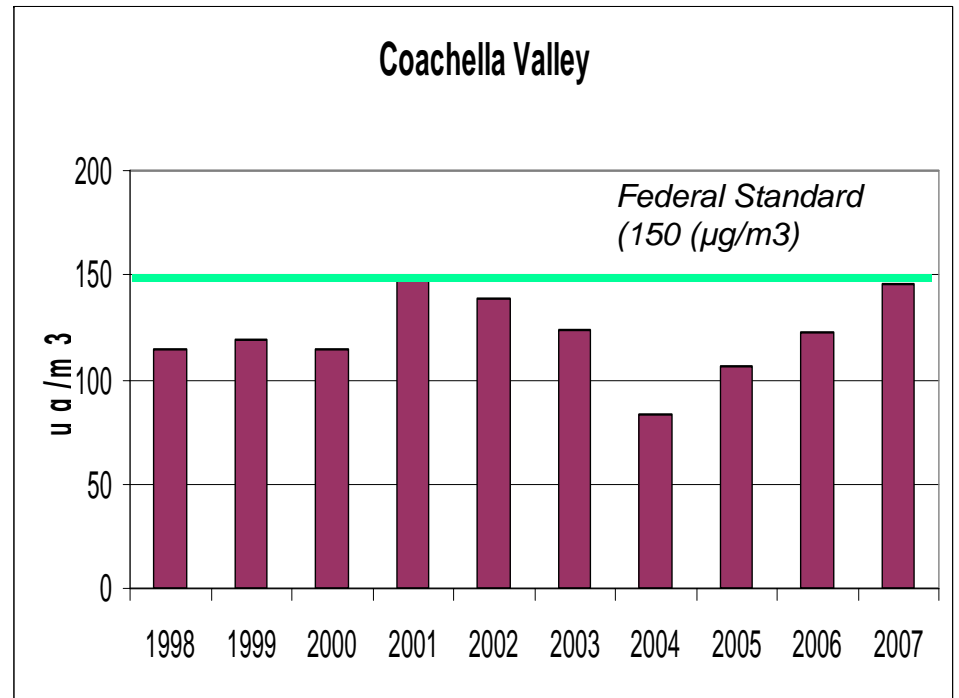
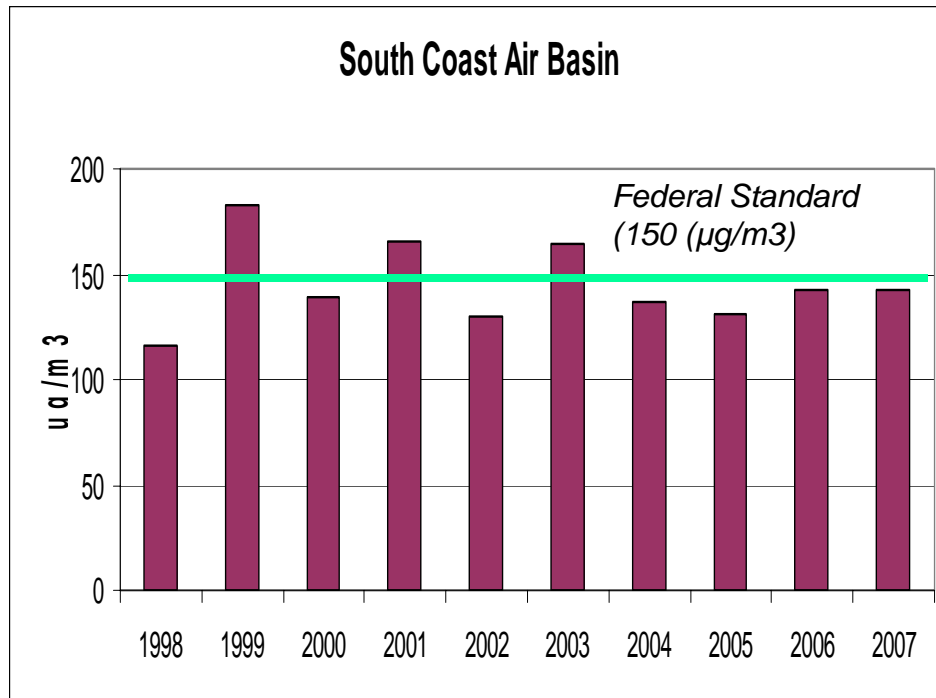
Criteria for Redesignation

- The U.S. EPA has determined that the NAAQS have been attained.
- The applicable implementation plan has been fully approved by U.S. EPA under section 110(k).
- The U.S. EPA has determined that the improvement in air quality is due to permanent and enforceable reductions in emissions.
- The State has met all applicable requirements for the area under Section 110 and Part D.
- The U.S. EPA has fully approved a maintenance plan, including a contingency plan, for the area under Section 175A.

PM10 Standard

- 2006 Annual federal PM10 standard revoked
- 24-hour average standard ($150 \mu\text{g}/\text{m}^3$) retained
- Attainment criteria:
 - 1 exceedance per year averaged over a 3 - consecutive year period
 - exceptional events ($> 150 \mu\text{g}/\text{m}^3$) flagged for exclusion from attainment determination

Annual Maximum* PM10 24-Hour Average Concentration ($\mu\text{g}/\text{m}^3$)



- Excluding Exceptional Events Coachella Valley 1998-2007, Basin 2007

Exceptional Events

- Three days each in the Basin and Coachella Valley were flagged as exceptional events and excluded from standard attainment consideration.
- Events include:
 - Fugitive dust from high wind events (Santa Ana, frontal passages, thunderstorms....)
 - Wildfires
 - 5th of July (following fireworks displays)
- Documentation on the exceptional events has been posted for public comment
 - submitted to CARB
 - forwarded to US EPA for concurrence.

Attainment/Implementation Plans

- November 2005, EPA fully approved the 2003 Basin and Coachella Valley PM10 attainment plans
- Permanent and enforceable PM10 rule & regulations implemented
- Conformity budgets established based on 2003 AQMP inventory

Interagency Consultation

- Draft requests submitted to CARB, EPA and SCAG
- Comments incorporated
- Updated inventories and provided revised attainment demonstrations
- Developed agreement on updated conformity budgets based on 2007 AQMP
- Coachella document completed, Basin under discussion

Summary Requirements Checklist

Components	CAA/U.S. EPA Requirements	Status Basin	Status Coachella Valley
Redesignation Request	Attainment with NAAQS	Conditions met	Conditions met*
	U.S. EPA approval of State Implementation Plan	Conditions met	Conditions met
	Air quality improvements due to permanent and enforceable emissions reductions	Conditions met	Conditions met
	Section 110 and Part D requirements have been meet	Conditions met	Conditions met
	U.S. EPA approval of a maintenance plan and contingency plan	Pending (as part of this submittal)	Pending (as part of this submittal)
Maintenance Plan	Attainment inventory	Conditions met	Conditions met
	Maintenance demonstration	Conditions met	Conditions met
	Monitoring network	Commitment established	Commitment established
	Verification of continued attainment	Commitment established	Commitment established
	Contingency Plan	Commitment established	Commitment established

* PM10 NAAQS is met at Palm Spring and Indio monitoring sties. EPA contends that the Coachella Valley fails the attainment test due several 2007 PM10 24-hr average exceedances measured by the Torres Martinez Beta Attenuation Monitor (BAM).

Issue: Tribal PM10 Monitoring

- Torres Martinez Tribe began a BAM continuous PM10 sampling program at their community center in 2007
- The BAM continuous monitor is considered a Federal Equivalent Methodology (FEM).
- The monitor is sited on a dirt parking lot and is subjected to overwhelming unpaved road dust emissions from vehicles entering the community center.
- Staff considers the monitor to be microscale, and heavily impacted by emissions within 100 meters of the sampler inlet.
- Dispersion modeling confirms the relative near monitor emissions impacts.

Typical Air Monitoring Stations



Torres Martinez Community Center



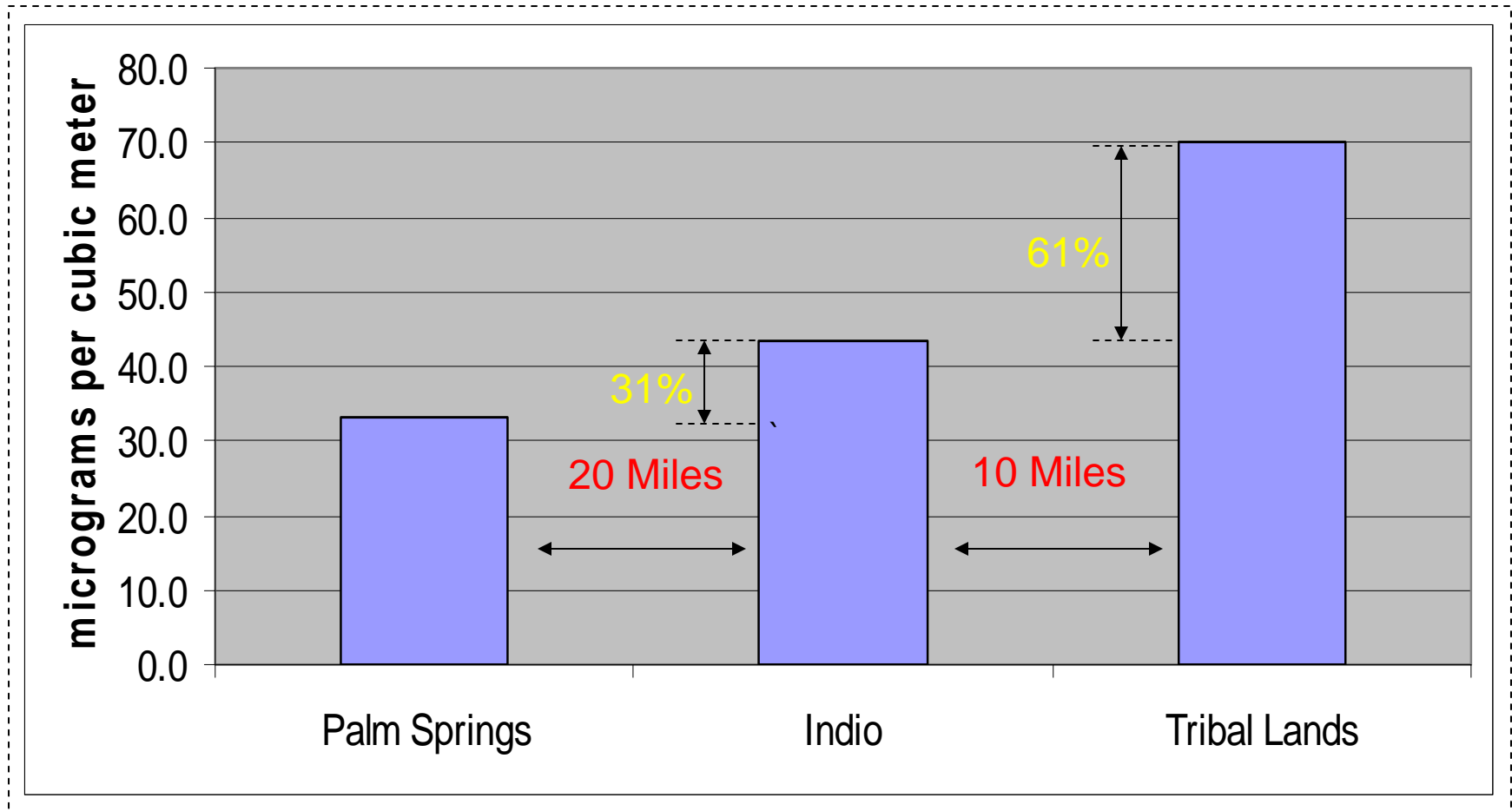
Monitoring Site Characteristics



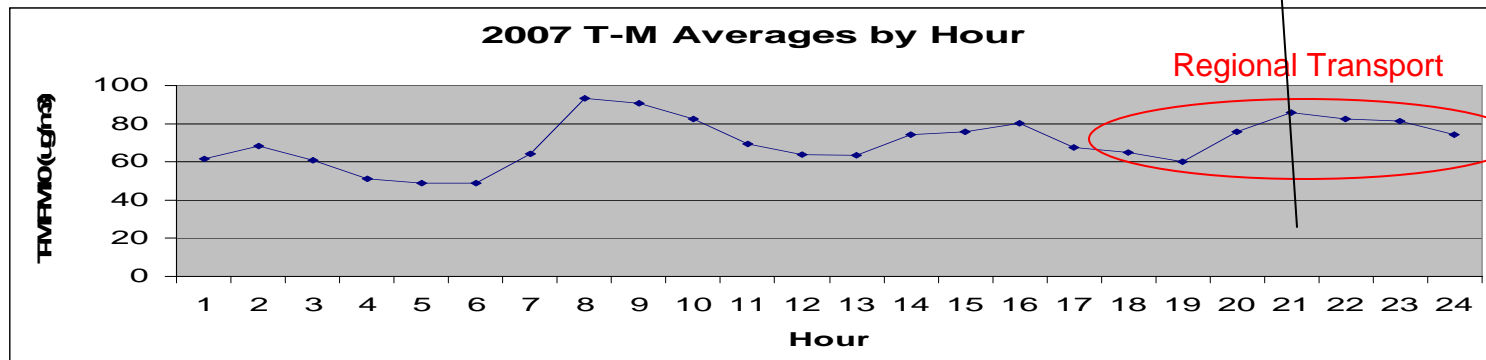
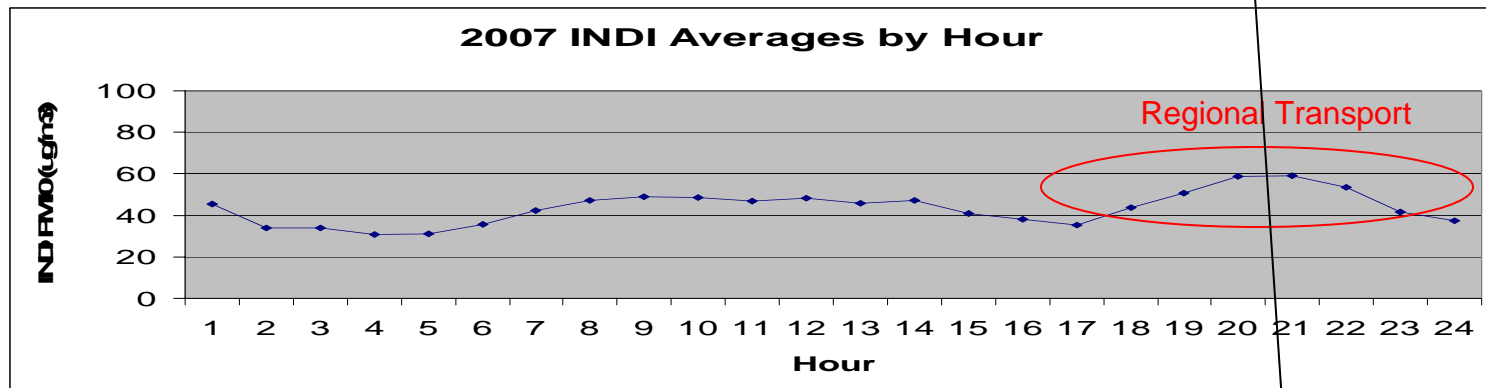
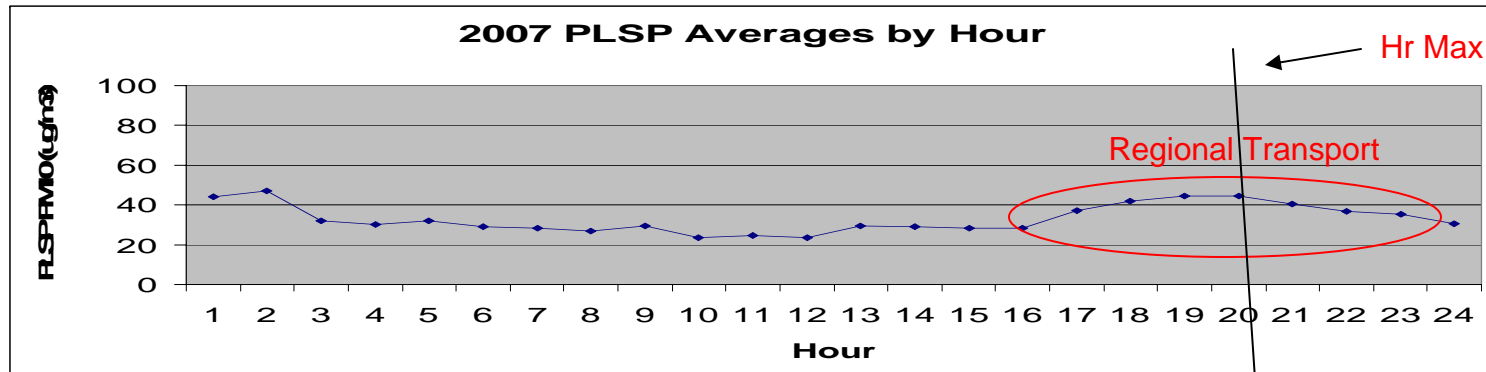
Tribal Monitoring (Cont.)

- The Torres Matrinez monitoring data displayed several violations of the 24-hour average PM10 standard
- The data was not quality assured to District standards nor was screened for exceptional event exclusion.
- The monitoring program did not meet the completeness criteria for all four quarters and the instrument was taken off line in the fourth quarter.
- The District did not participate in any of the Torres Martinez program.
- Torres Martinez has submitted the PM10 BAM data to the AQS system and EPA has accepted it.

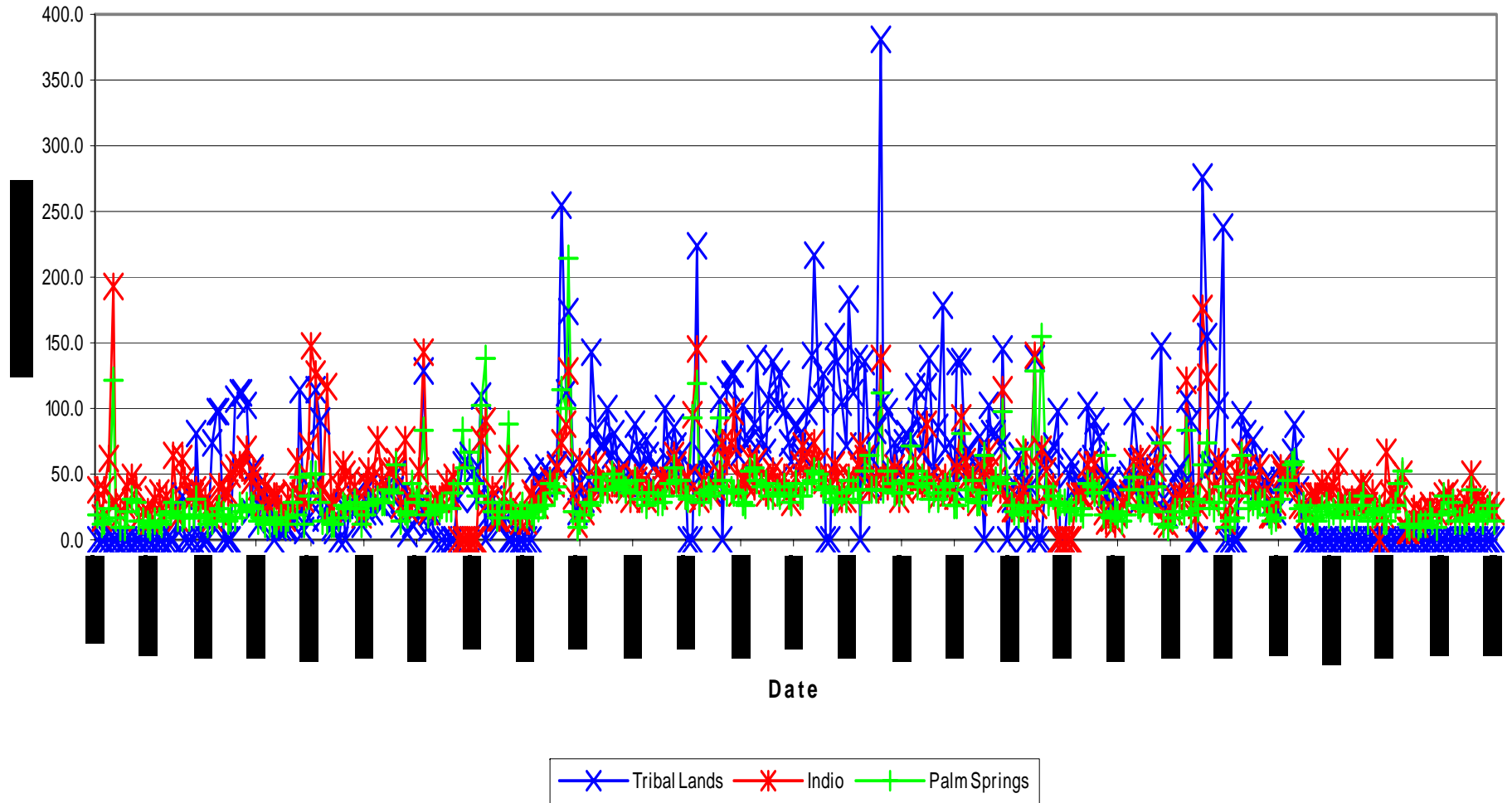
Comparison of Annual Average PM10 Concentrations Along a Transport Route



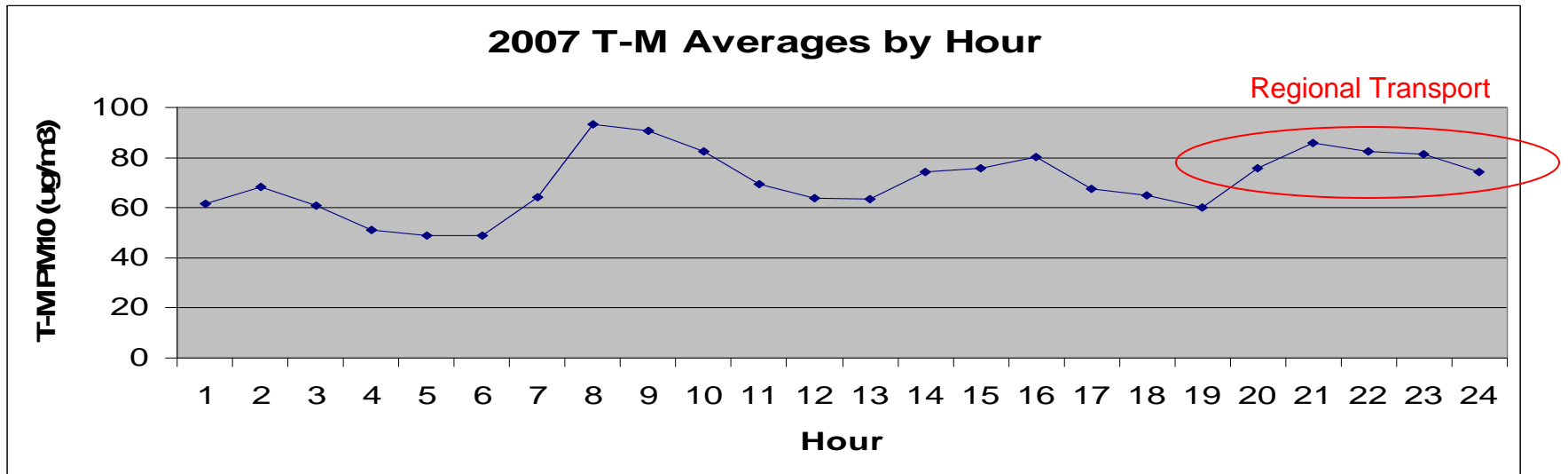
Monitoring Data & Siting Impacts



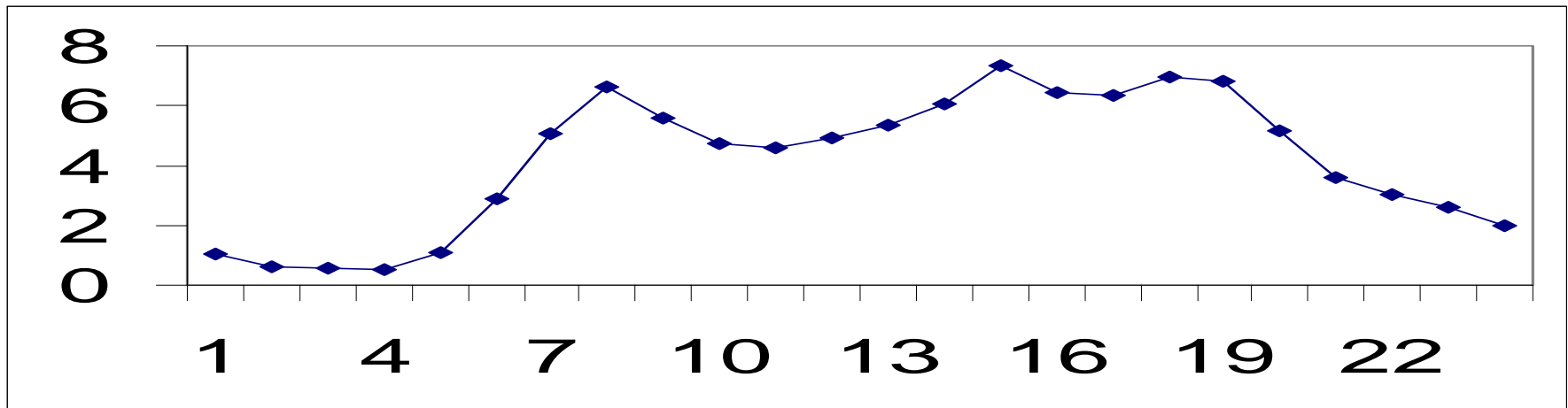
24-Hr Average Concentrations



Tribal PM10 Mirrors Urban Profile



Weekday Urban Traffic Profile

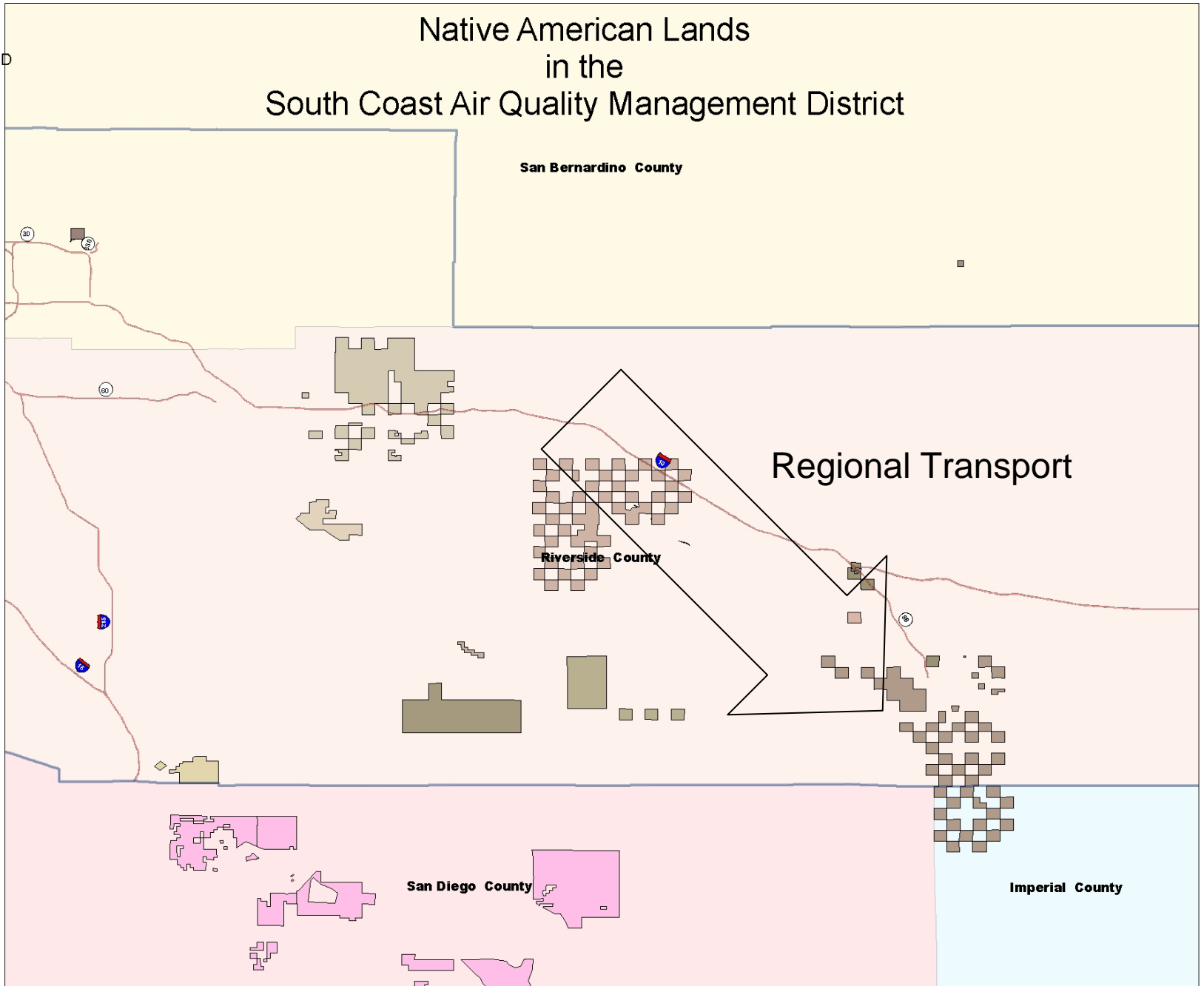


EPA's Position

- Despite extensive discussions, EPA Region IX has stated that they believe the Torres Martinez data is valid and as such cannot grant a redesignation because of the violations logged at the tribal monitor.
- Attempts to extract the Tribal lands from the non-attainment area were unsuccessful because of land tract configuration.
- Staff met with EPA and Tribal officials at the community center site. During the visit, significant PM10 entrained unpaved road dust plumes were clearly observed from vehicles entering the community center parking lot where the monitor resides.

Legend

- Tribes not in SCAQMD
- Agua Caliente
- Augustine
- Cabazon
- Cahuilla
- Morongo
- Pechanga
- Ramona
- San Manuel
- Santa Rosa
- Soboba
- Torres-Martinez
- Twenty-Nine Palms



Staff's Position

- Staff believes that the monitoring site is microscale and not representative of the overwhelming profile of Coachella Valley air quality.
- Submit the request to CARB to forward to EPA to encourage actions to be taken to reduce emissions and further lower PM10 concentrations on the tribal lands that are beyond District and state jurisdiction.

Summary/Next Steps

- Basin redesignation to PM10 attainment likely
- Coachella Valley request uncertain
- Staff will schedule & conduct Public Workshops in each of the four counties to take comments on the redesignation request and maintenance plan
- Requests are tentatively scheduled to come before the Governing Board this fall
- Submit to CARB
- EPA has 18 months to respond