

Enhancing Monitoring Efforts to Respond to Community Concerns

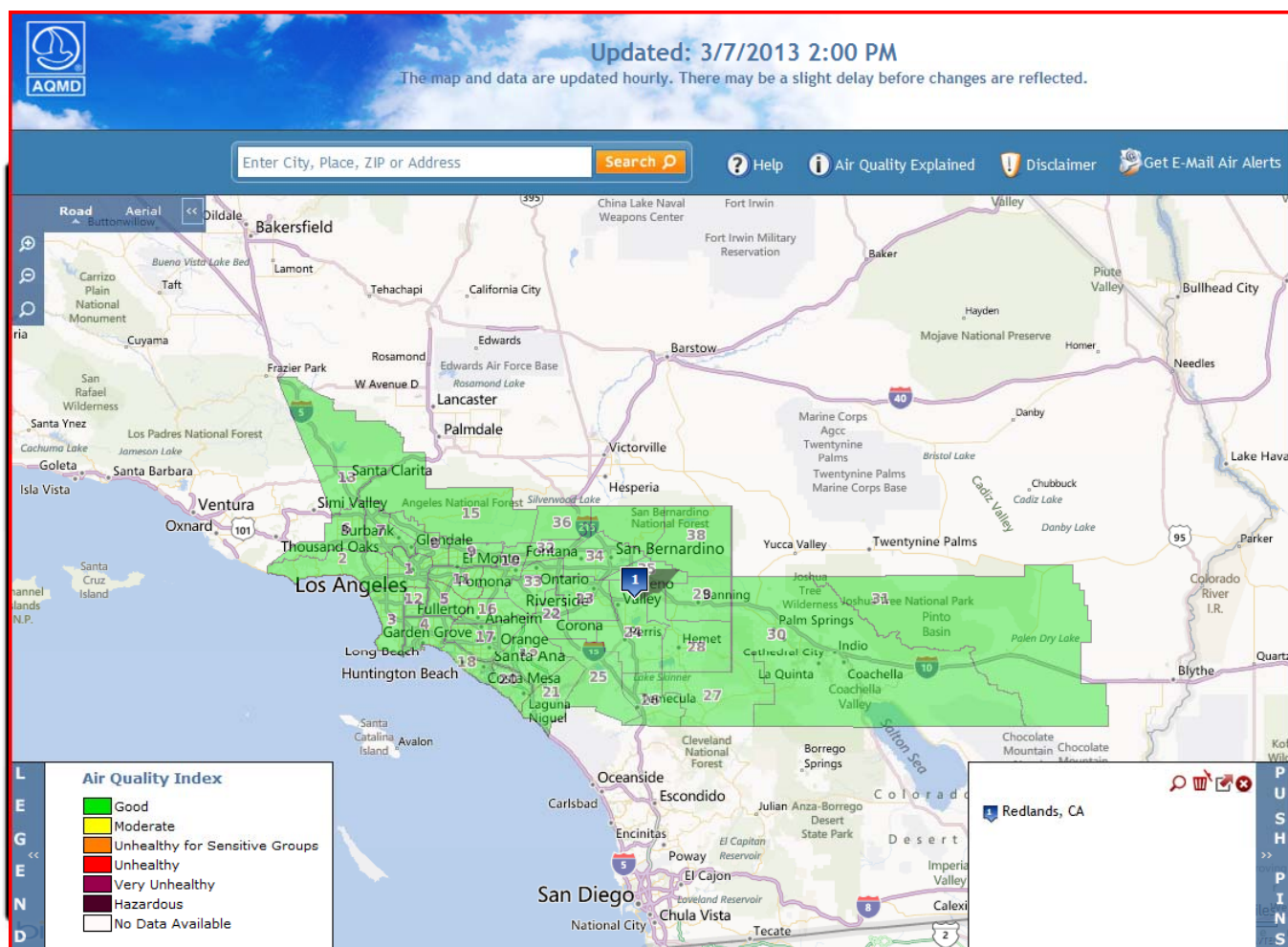
Governing Board Retreat
March 14-15, 2013

Cleaning the Air That We Breathe...

Routine Air Monitoring Programs

- Permanent, Large Fixed Sites
- Addresses NAAQS
 - Criteria Pollutants
 - Neighborhood, Urban or Regional Scale
 - Away from Sources
- Limited Air Toxics (PM_{2.5} Speciation/ NATTS)
- Funded by U.S. EPA

SCAQMD Air Monitoring Network



Special Monitoring Programs

- Emergency Responses
- Wild Fire Monitoring
- Special Investigations, Compliance and Regional Studies (MATES IV, Cr+6, R 1158)
- Community Based Response



Community Based Air Monitoring

- Addresses Local Concerns and Issues (Odors, Dust, Smoke)
- Many Times Source Specific (Facilities, Ecosystems)
- Micro or Middle Scale
- Not Mandated by Federal Regulations
- Customized Approach to Address Each Situation
- Community Involvement
- Risk Communication

Community Response Monitoring Currently Available Tools

- Mobile Monitoring Platform
 - High degree of sophistication
 - Deployable within one or two days
- Triggered Canisters
 - 24 Hour Monitoring
 - Immediate Response to Event
 - Requires Laboratory Analyses



Community Response Monitoring Currently Available Tools

- Hapsite Portable GC/MS
 - Organic Analyses
 - Results within 30 Minutes
 - Detection level to 5 ppm
- Canister and Bag Sampling
 - Better detection levels
 - Require Laboratory Based Analyses
 - Results may take hours



Community Response Monitoring Currently Available Tools

- Additional support tools
 - Handheld Sulfur Gas Detectors
 - Handheld Inorganic Analyzers
 - PPM Range
 - Acids and Inorganic Gases i.e. Ammonia and Chlorine

Los Angeles County Projects

- Rule 1158, Port Area – Coke & Coal
- 605 FWY, north end Rock & Gravel – PM
- Airports S.M. & V.N. – MATES*
- Azusa Fallout Study – PM
- Beverly Hills/Venoco – VOCs
- Boyle Heights (Suva School) – MATES
- Chrome Crankshaft – Cr⁺⁶
- Del Amo School/Rainbow Trucking – VOCs
- Duarte/Vulcan Materials – PM, Crystal Silica
- Exide/Quemetco – Lead, Arsenic
- La Montana/Huntington Park – PM
- LAX
 - Felton & Lloyd Schools
 - Court House
 - Terminal
 - Flight Path Fallout
- Palace Plating/28th Street School – Cr⁺⁶
- Puente Hills Landfill – VOCs
- Palos Verdes Landfill/Rancho Vista School – VOCs, PM, Metals
- Coffee Roaster, Torrance – Odors, VOCs

*MATES type sampling and analysis suite.

Los Angeles County Projects (Cont'd)

- Hollywood M_e Fire – VOC, M_e
- PXP, Baldwin Hills – VOCs
- Sunshine Canyon, S.F. Valley – VOCs
- Sunrise Dev. P.V., Torrance – Crystalline Silica
- Train-in-a-Trench, Alhambra – PM Deposition
- Excavation, City of Calabasas – PM₁₀
- Boyle Heights – PM₁₀, EC/OC
- Griffiths Elementary, Downey – PM₁₀, EC/OC
- Milken Community High School, Sherman Oaks – VOC, EC/OC
- 710 FWY Terminus, Alhambra – MATES
- Jefferson Elementary, Compton – MATES
- Heliotrope & Nimitz Elementary – MATES
- L.A. & L.B. Ports, various studies since 1997 – VOCs, PM
- Sun Valley Middle School – PM₁₀, EC/OC
- Rail yard, City of Commerce – MATES
- Resurrection Church, East L.A. – Odors
- Olive Street, Central L.A. – Oil VOC
- Greg Industries, El Monte - Odors

Riverside County Projects

- Cal Bio-Mass – Odors
- Riverside Cement – Cr⁺⁶
- Salton Sea – Odors
- Torres Martinez Landfill Fire – VOCs
- Western Environmental – Odors, Toxics
- Wildomar – VOCs, Metals
- Mira Loma – PM₁₀, EC/OC
- Del Web – PM₁₀

Orange County Projects

- Disneyland Fireworks – Fallout, Metals
- Hixson, Newport Beach – Cr⁺⁶
- J.W. Airport, Newport Beach – VOCs, Fallout
- Leisure World
- Rancho Santa Margarita – Sulfur Odor
- Eader Elementary – PM, Cr⁺⁶, VOCs
- Kennedy Elementary School, Santa Ana – Cr⁺⁶

San Bernardino County

- Omnitrans, San Bernardino – Sulfur Odors
- Tamco, Fontana – Nickel, Manganese, Lead
- Big Bear Lake – Mercury
- Train Derailment, Cajon Pass
- Guadalupe School
- Fontana Speedway – VOCs, MeOH

Chromium Projects

- Chrome Crankshaft
- Hixson
- Palace Plating/28th Street School
- Riverside Cement
- Ocean Works/Kennedy School, Santa Ana

Omnitrans

Location – San Bernardino Ramona-Alesandro School

Pollutants – Sulfur Odors

Outcome – Odors were determined to come from sewer and waste water system



Rancho Vista School

Facility - Palos Verdes Landfill

Location – Palos Verdes

Pollutants – VOCs and Metals

Outcome – Closed landfill did not appear to have an adverse impact at the school.

Wildomar

Pollutant(s) – Indoor and outdoor VOCs and Metals

Outcome – Sampling thus far has not revealed unusual levels of VOCs in the interior of the homes or outdoors. Soil sampling in specific areas showed some elevated metals, likely from garden additives, soap, or naturally occurring compounds.

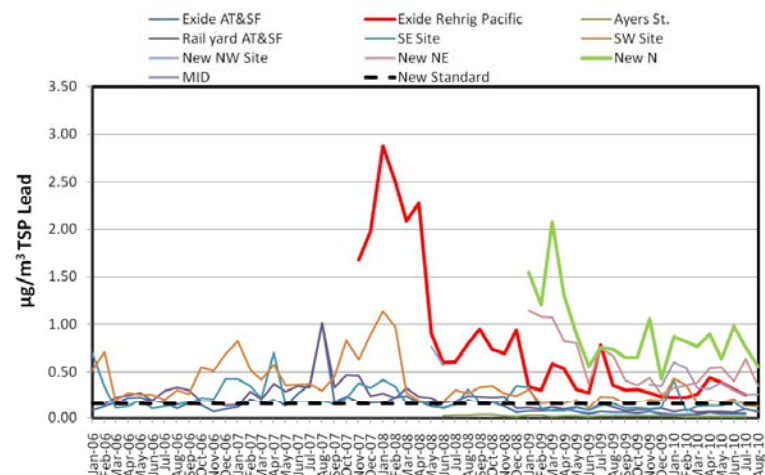
Battery Recyclers

Facility – Exide and Quemetco

Location – L.A. County

Pollutant(s) – Lead, Arsenic

Outcome – Quemetco is currently meeting standards. Exide is working with SCAQMD to reduce emissions and risk.



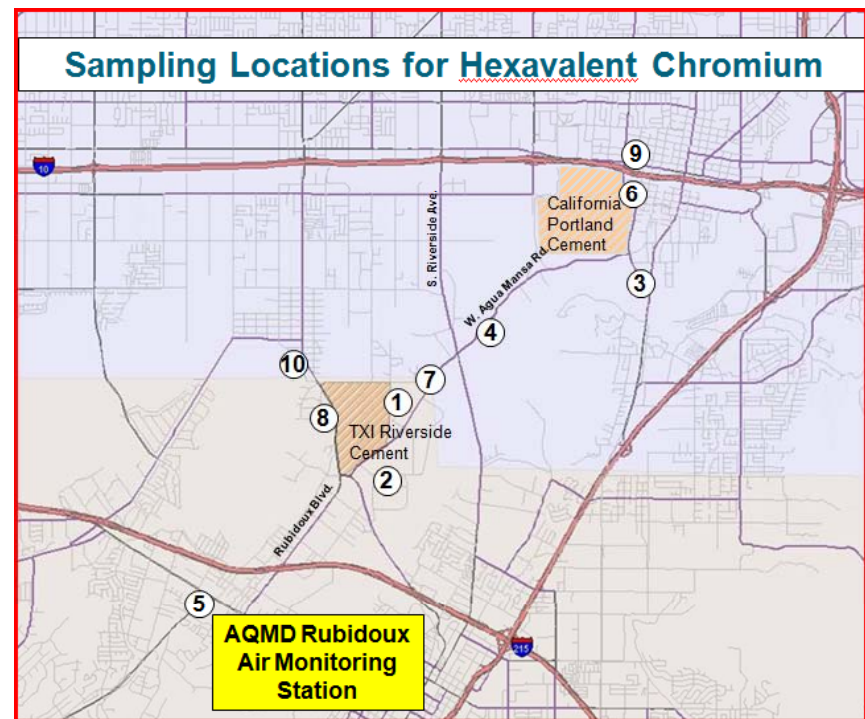
Cement Facilities

Facility - Riverside
Cement and Cal
Portland

Location – Rubidoux and
Colton

Pollutants – Cr+6

Outcome – Rule 1156 was
amended. Monitoring
is being conducted by
each facility.



Western Environmental

Location – Mecca

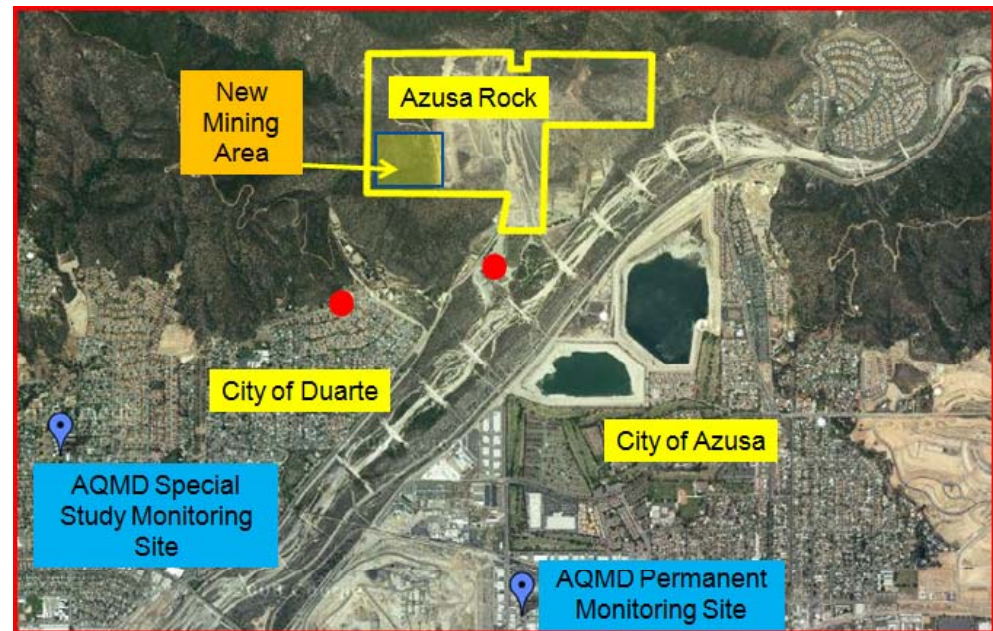
Pollutants – Odors and VOCs

Outcome – Agreement with Tribal Authority allowed SCAQMD to require modifications to facility operations. SCAQMD monitoring continues at 4 locations in Mecca



Upcoming Projects: Duarte

- Concern Regarding Expansion of Rock and Gravel Mining Operation
- Two Year Base Line Study Completed
- Additional monitoring to Assess Impact of Expanded Operations
- Pollutants of Concern
 - PM10 and Crystalline Silica



● Potential new monitoring locations

Upcoming Projects: Soil Composition Study

- No Existing Literature or Data Base
- Soil Signature for Comparison to Ambient
 - Wildomar and Tamco
- Samples from Entire Basin

Upcoming Projects: Refinery Monitoring

- UCLA Project
- CARB/Governor's Initiative

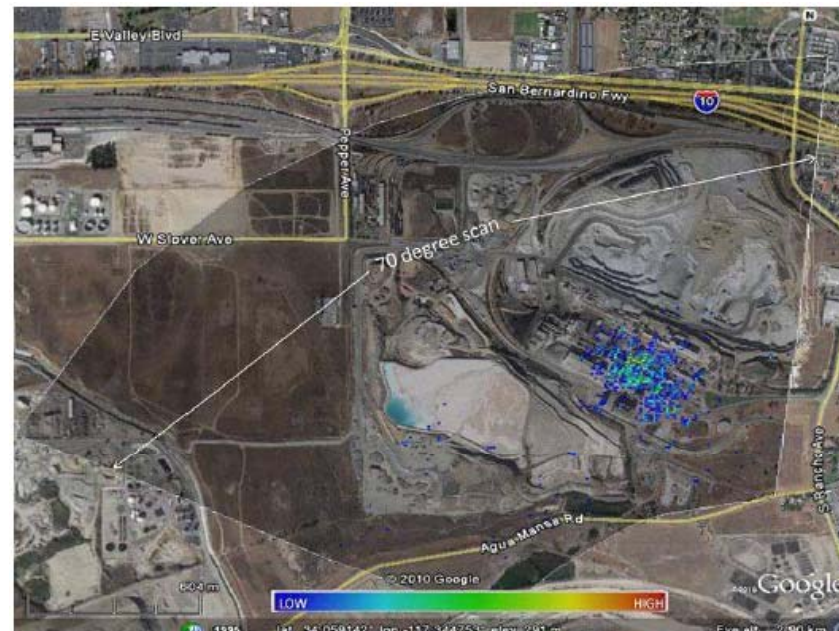


Salton Sea

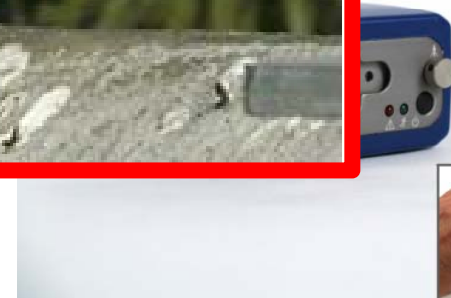
- Over 250 Complaints over 3 days
- H₂S Concentrations Observed near 150 ppb
- Board Authorized H₂S Monitoring Network to be Established



Future Technology: Remote Sensing



Future Technology: Distributed, Low-Cost Sensors



Considerations for SCAQMD Community Based Air Monitoring

- Formalize Program to Enhance Capability to Address Increasing SCAQMD Role and Public Demand
- Planning and Allocation of Resources
- Consult with Other Experts to Assess Technical Program
- Enhance Risk and Information Communication