Community Air Initiatives

San Bernardino, Muscoy Community Steering Committee Meeting #5

Thursday, April 18, 2019
San Bernardino, CA
Committee Business

- Finalize Roster
- Meeting Format and Length
  - Survey
- Suggestion Box
- Community Tour
Committee Presenters

• AB 617 is a collaborative effort
• Seeking volunteer Community Steering Committee (CSC) members to present
• Highlight efforts within the San Bernardino, Muscoy (SBM) community that could be part of the AB 617 Community Emission Reduction Plan (CERP)
• Who would you like to hear from?
  • Let us know!
Making Progress

Community Reported Air Quality Concerns

Air Quality Concern Prioritization

Strategies and Proposed Actions for Reported Air Quality Concerns (Part I)

Draft Air Monitoring Plan

Submit Air Monitoring Plan to the California Air Resources Board (CARB)

Finalize Air Monitoring Plan

Draft Community Emissions Reduction Plan

November

January

February

March

April

May
Considerations for Community Air Monitoring Plan

- Community Input
- Building on Existing Programs
- Previous Knowledge
- Air Monitoring Capabilities
The Major Elements in the Community Air Monitoring Plan (CAMP)

1. Background and CAMP Objectives
2. Existing Monitoring Programs in the SBM Community
3. Air Quality Concerns, Pollutants of Interest, Monitoring Equipment, and Monitoring Methods
4. Community Air Monitoring Approach
5. Data Reporting
Ongoing CAMP Process

We Are Here Now

Submit CAMP to CARB

(Draft) Refine and Revise CAMP

Implement Community Air Monitoring

Gather CSC and Community Feedback

Interpret Monitoring Results and Continued Community Input

Recommend Adjustments and Refinements

Refine and Revise CAMP

Continued Community Input

Adjustments and Refinements
Working with the CSC Group

- Recommend Appropriate Monitoring Strategies
  - CSC Meeting #4

- Provide CAMP Updates to CSC and Gather Input
  - CSC Meeting #5

- Submit Draft CAMP to CARB
  - By May 1\textsuperscript{st}, 2019

- Begin Air Monitoring in Priority Areas
  - July 1\textsuperscript{st}, 2019
What are the sources of air pollution?
Main air toxics in the SBM community

Diesel particulate has the highest impact in the community

- Other toxics may have impacts to areas, if they are close to sources
- Emissions inventories do not include unknown or unquantified leaks
What are the sources of diesel particulates in the SBM community?

<table>
<thead>
<tr>
<th>Diesel Source Category</th>
<th>% of Total Emissions**</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON-ROAD MOBILE</td>
<td>62</td>
</tr>
<tr>
<td>OFF-ROAD EQUIPMENT</td>
<td>21</td>
</tr>
<tr>
<td>TRAINS</td>
<td>16</td>
</tr>
<tr>
<td>SERVICE AND COMMERCIAL</td>
<td></td>
</tr>
<tr>
<td>FARM EQUIPMENT</td>
<td></td>
</tr>
<tr>
<td>MANUFACTURING AND INDUSTRIAL</td>
<td></td>
</tr>
<tr>
<td>FOOD AND AGRICULTURAL PROCESSING</td>
<td></td>
</tr>
<tr>
<td>OTHER (FUEL COMBUSTION)</td>
<td></td>
</tr>
<tr>
<td>RESIDENTIAL FUEL</td>
<td></td>
</tr>
<tr>
<td>COMBUSTION</td>
<td></td>
</tr>
</tbody>
</table>

**2012 Baseline Emissions

![Pie chart showing the percentage of total emissions by various categories.]

- **62%** On-road Mobile
- **21%** Off-road Equipment
- **16%** Trains
- **~1%** All Other Categories

**Legend:**
- **Blue:** On-road Mobile
- **Orange:** Off-road Equipment
- **Gray:** Trains
- **White:** All Other Categories
What are the sources of Nitrogen Oxides (NOx) in the SBM community?

<table>
<thead>
<tr>
<th>NOx Source Category</th>
<th>% of Total Emissions**</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON-ROAD MOBILE</td>
<td>76%</td>
</tr>
<tr>
<td>TRAINS</td>
<td>11%</td>
</tr>
<tr>
<td>OFF-ROAD EQUIPMENT</td>
<td>8%</td>
</tr>
<tr>
<td>ELECTRIC UTILITIES</td>
<td>2%</td>
</tr>
<tr>
<td>SERVICE AND COMMERCIAL</td>
<td>2%</td>
</tr>
<tr>
<td>RESIDENTIAL FUEL COMBUSTION</td>
<td>1%</td>
</tr>
<tr>
<td>MANUFACTURING AND INDUSTRIAL</td>
<td></td>
</tr>
<tr>
<td>FARM EQUIPMENT</td>
<td></td>
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<tr>
<td>OTHER (FUEL COMBUSTION)</td>
<td></td>
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<tr>
<td>FOOD AND AGRICULTURAL PROCESSING</td>
<td></td>
</tr>
<tr>
<td>FIRES</td>
<td></td>
</tr>
<tr>
<td>MANAGED BURNING AND DISPOSAL</td>
<td></td>
</tr>
<tr>
<td>OFF-ROAD RECREATIONAL VEHICLES</td>
<td></td>
</tr>
<tr>
<td>COGENERATION...etc.</td>
<td></td>
</tr>
</tbody>
</table>

**2012 Baseline Emissions

*Numbers may not add up due to rounding
What are the sources of Volatile Organic Compounds (VOCs) in the SBM community?

### VOC Source Category

<table>
<thead>
<tr>
<th>Category</th>
<th>% of Total Emissions**</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON-ROAD MOBILE</td>
<td>59</td>
</tr>
<tr>
<td>CONSUMER PRODUCTS</td>
<td>13</td>
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<tr>
<td>OFF-ROAD EQUIPMENT</td>
<td>7</td>
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<td>ELECTRIC UTILITIES</td>
<td>3</td>
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<tr>
<td>PETROLEUM MARKETING</td>
<td>3</td>
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<tr>
<td>COATINGS AND RELATED PROCESS SOLVENTS</td>
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<tr>
<td>ARCHITECTURAL COATINGS AND RELATED PROCESS SOLVENTS</td>
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<tr>
<td>RECREATIONAL BOATS</td>
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<tr>
<td>FUEL STORAGE AND HANDLING</td>
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<tr>
<td>SERVICE AND COMMERCIAL</td>
<td></td>
</tr>
<tr>
<td>FARMING OPERATIONS</td>
<td></td>
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<tr>
<td>TRAINS</td>
<td></td>
</tr>
<tr>
<td>ADHESIVES AND SEALANTS</td>
<td></td>
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<tr>
<td>LANDFILLS</td>
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<tr>
<td>DEGREASING</td>
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<tr>
<td>MANUFACTURING AND INDUSTRIA</td>
<td></td>
</tr>
<tr>
<td>OFF-ROAD RECREATIONAL VEHICLE OTHER (FUEL COMBUSTION)</td>
<td></td>
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<tr>
<td>CHEMICAL</td>
<td></td>
</tr>
<tr>
<td>ASPHALT PAVING / ROOFING</td>
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<tr>
<td>OTHER (INDUSTRIAL PROCESSES)</td>
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<tr>
<td>RESIDENTIAL FUEL COMBUSTION</td>
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<tr>
<td>COOKING</td>
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<tr>
<td>PESTICIDES/FERTILIZERS</td>
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<tr>
<td>FARM EQUIPMENT</td>
<td></td>
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<tr>
<td>LAUNDERING</td>
<td></td>
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<td>FIRES</td>
<td></td>
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<tr>
<td>FOOD AND AGRICULTURE</td>
<td></td>
</tr>
<tr>
<td>MANAGED BURNING AND DISPOSAL</td>
<td></td>
</tr>
<tr>
<td>OTHER (CLEANING AND SURFACE COATINGS)</td>
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</tr>
<tr>
<td>OTHER (WASTE DISPOSAL)</td>
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<tr>
<td>FOOD AND AGRICULTURAL</td>
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<tr>
<td>MINERAL PROCESSES</td>
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<tr>
<td>COGENERATION</td>
<td></td>
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<tr>
<td>OIL AND GAS PRODUCTION</td>
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<tr>
<td>OTHER (PETROLEUM PRODUCTION AND MARKETING)</td>
<td></td>
</tr>
<tr>
<td>OIL AND GAS PRODUCTION (COMBUSTION)</td>
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</tbody>
</table>

**2012 Baseline Emissions
Initial Ideas for Actions in the Community Emissions Reduction Plan (CERP) and Community Air Monitoring Plan (CAMP) – PART II
Prioritized Air Quality Concerns in San Bernardino and Muscoy

This committee has prioritized these air quality concerns in the San Bernardino and Muscoy community:

1. Neighborhood Truck Traffic (including from/to warehouses)
2. Railyard
3. Warehouses (On-site Emissions)
4. Cement Batch Plants
5. Omnitrans Bus Yard
6. Schools, Hospitals, etc.

Discussed in Meeting #4

Today, we will focus on discussing actions to address these priorities.
Community Emissions Reduction Plan and Community Air Monitoring Plan

Goals & Objectives of Monitoring

Monitoring Solutions

Monitoring Data

Deadline for CERP to be approved: September 2019

Submit Plan: May 2019
Implementation: July 2019
SBM Meeting #4
Brief Recap of Air Quality Concerns Discussion

Neighborhood Truck Traffic

• Focused enforcement of designated truck routes and idling truck regulations
• Time specific anti-idling regulations (to address off-hour idling)
• On-site accountability to ensure trucks comply with idling
• Education, outreach, and/or training on truck idling and warehouses
• Incentivize or encourage Zero-Emission technology, where available

BNSF Railyard Onsite

• Focused Particulate Matter (PM) and black carbon (BC) monitoring
• Rulemaking for railyards - Facility Based Mobile Sources Measures (Indirect Source Rule (ISR)) and CARB regulations
• Incentives: Locomotive (switcher, line-haul), cargo handling equipment replacements

* See meeting summary for more details
Warehouse (On-site Emissions)
Initial CERP and CAMP Ideas

**Monitoring:**
- Fenceline monitoring to characterize air pollution activities
- Identify impacted community areas nearby
- Data could support future enforcement action if necessary

**Incentives:**
- Electrify forklifts, transportation refrigeration units (TRUs) and other on-site diesel-powered equipment, where applicable
- Charging and/or fueling infrastructure for on-site equipment

**Collaboration**
- Encourage buffer zones between warehouses and residents
- Encourage solar power generation
- Encourage warehouses to build loading docks away from residents’ homes
- Infrastructure needs, collaboration with public utilities/Public Utilities Commission (PUC)/California Energy Commission (CEC) and local ordinances

**Rules, Regulations, and Agreements**
- Rulemaking for warehouses - Facility Based Mobile Sources Measures (Indirect Source Rule (ISR))
- CEQA Mitigation Fund

*These measures are either new or could have new components based on committee feedback and priorities*
Cement Batch Plants

Initial CERP and CAMP Ideas

Monitoring:
- Place hexavalent chrome monitors near cement manufacturers
- Add in PM10 monitoring
- Provide information for enforcement actions
- Support the CERP (e.g. track progress)
- Provide information for enforcement actions, when appropriate

Enforcement:
- Focused enforcement of Rule 403 (Fugitive Dust)

Outreach:
- Fugitive dust outreach materials for community members
- Outreach to operators

These measures are either new or could have new components based on committee feedback and priorities.
Omnitrans Bus Yard
Initial CERP and CAMP Ideas

Monitoring:
- Fenceline monitoring to characterize emissions
- Identify impacted community nearby

Enforcement:
- Utilize the FLIR camera to identify sources of leaks; conduct targeted follow-up investigation

Outreach:
- Odor identification outreach materials for community members

Collaboration:
- Seek opportunities for minimizing emissions

These measures are either new or could have new components based on committee feedback and priorities
Schools, Hospitals, Parks, & Community Centers

Initial CERP and CAMP Ideas

Monitoring:
- Look at air pollution levels at and near these places
- Track progress of the emission and exposure reduction programs
- Provide community education and engagement

Incentives:
- Installation of air filtration systems at schools
- Upgrade or replace school buses

Collaboration/Outreach:
- Provide schools with information related to air quality advisories
  - Work with Department of Public Health and school districts to develop guidelines

These measures are either new or could have new components based on committee feedback and priorities
School Filtration Systems within the SBM Community

Legend:
- Elementary Schools (Public)
- Intermediate/Middle Schools (Public)
- High Schools (Public)
- Completed Schools
- Impacted Community Boundary
Discussion Questions

1. Which of the proposed actions in this air quality concern category are the highest priorities?

2. Does the proposed monitoring approach support other actions (e.g. enforcement, emission reductions)?
   - This is your opportunity to provide input to staff for the draft air monitoring plan.

3. What additional ideas do you have to address this air quality concern?

4. How would you prioritize schools (e.g. age group sensitive receptors, proximity to known emission sources, concentrations of pollutants/toxics, etc.)?
   - To which group would you give the highest priority and why: schools, community centers, hospitals, parks, etc.?
Next steps and important reminders

Future meeting dates and locations:

- CSC Meeting #6: May 16, 2019 (6:00 p.m.-8:00 p.m.*) at TBD

*Depending on CSC input, the meeting may be extended

Likely agenda items for CSC Meeting #6:

- Committee presentations
  - San Bernardino County Department of Public Health
  - City of San Bernardino
- Developing goals for the CERP
- CARB Actions

Is the CSC okay with these topics?
Any additional topics?

Technical Advisory Group (TAG):

<table>
<thead>
<tr>
<th>Primary Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ryan Sinclair (Loma Linda University)</td>
</tr>
<tr>
<td>Andreas Beyersdorf (California State University, San Bernardino)</td>
</tr>
<tr>
<td>Tammy Yamasaki (Southern California Edison)</td>
</tr>
</tbody>
</table>

Next TAG Meeting: Late Spring 2019
Thank you for the hard work!

More information on AB 617: www.aqmd.gov/AB617

Email: AB617@aqmd.gov

Follow us @SouthCoastAQMD