Andreas Beyersdorf
CSUSB

comments on:

Technical Advisory Group Meeting
July 31, 2020

CALIFORNIA STATE UNIVERSITY
SAN BERNARDINO

TAG July 2020 Meeting

- Dr. Sang-Mi Lee & Dr. Marc Carreras Sospedra
- Updates on Emissions Inventories and Modeling
- Slides available at:

https://www.aqmd.gov/nav/about/initiatives/community-efforts/environmental-justice/ab617-134/technical-advisory-group

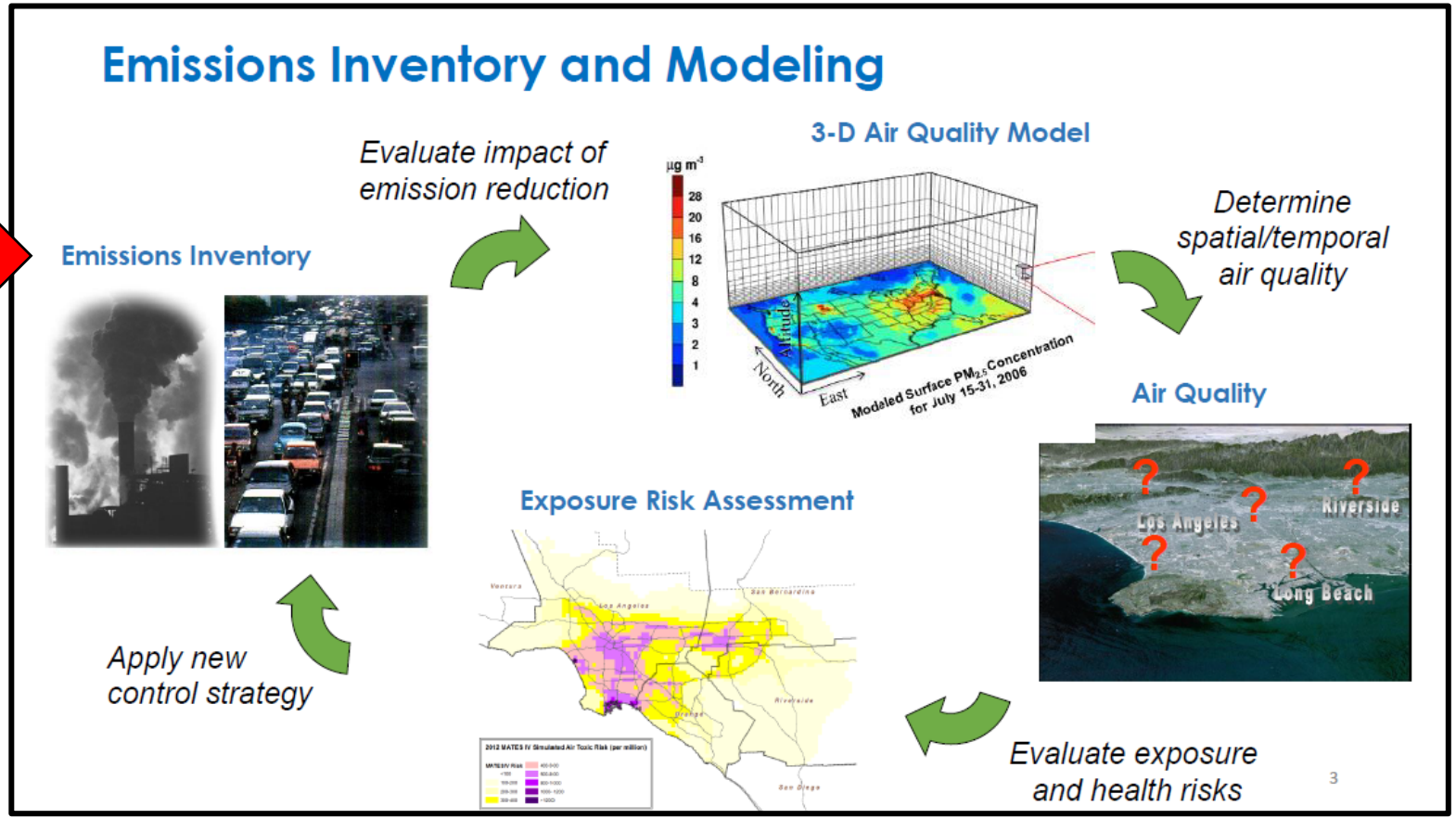
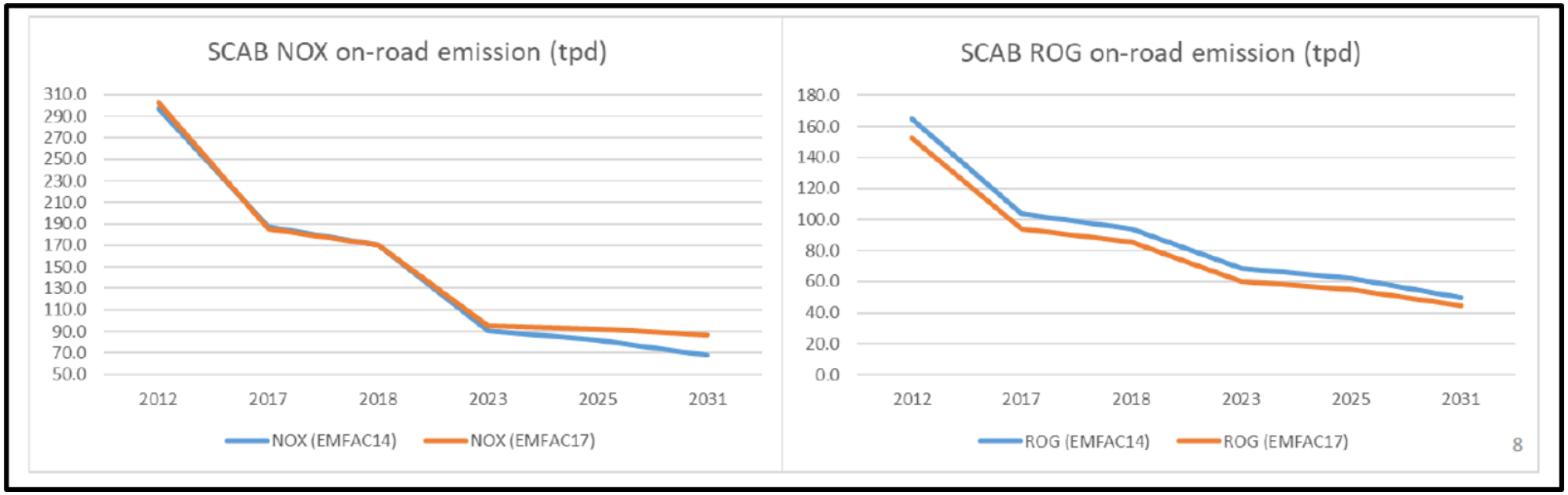


Figure from TAG notes

TAG July 2020 Meeting

- Updated On-Road Mobile Emissions Update (EMFAC)
  - Old = 2014
  - New = 2017



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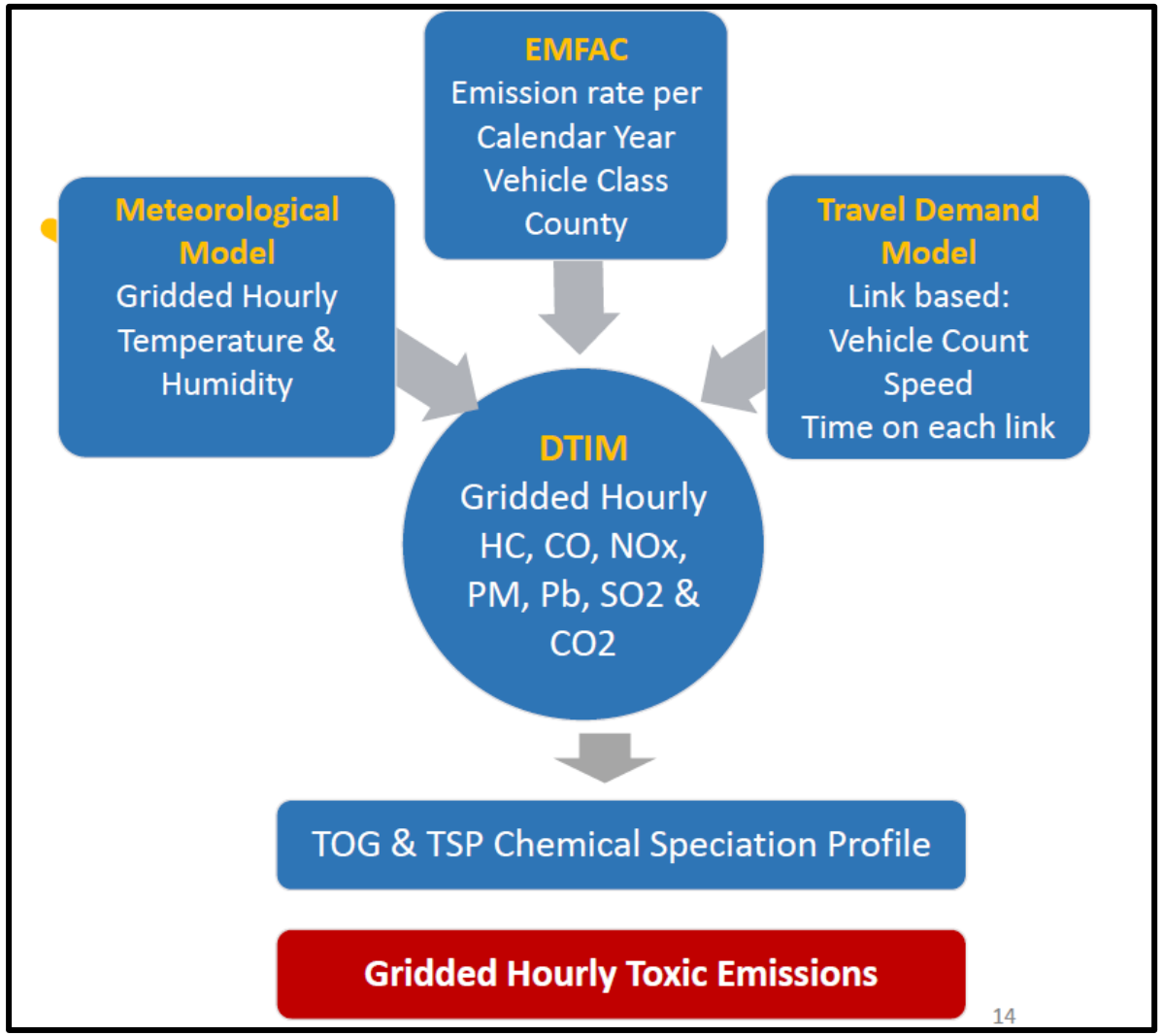
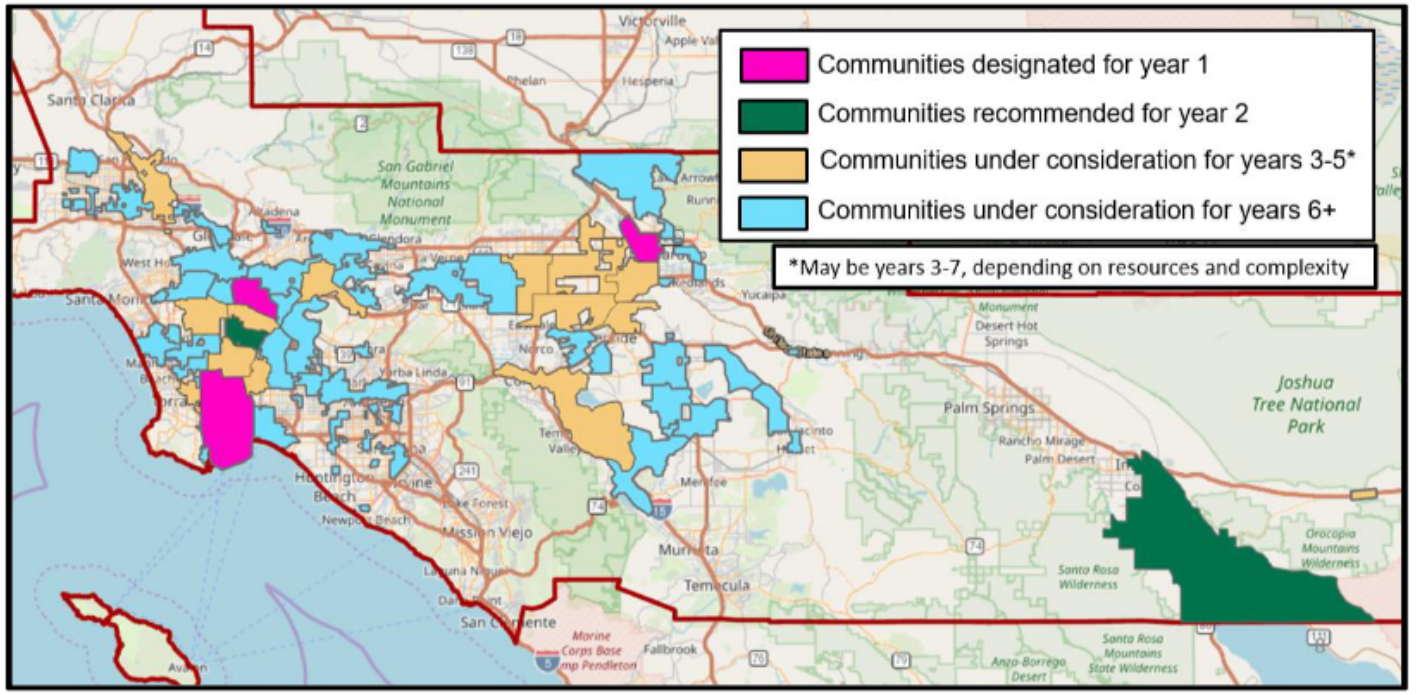


Figure from TAG notes

TAG July 2020 Meeting

- MATES V – 2018 emissions
- 2022 AQMP (Air Quality Modeling Platform)
- 2019-Designated Communities source attribution for 2018, 2025 & 2030
  - **Southeast LA (Bell Gardens, Huntington Park, Cudahy & South Gate)**
  - **East Coachella Valley (Indio & Coachella)**



https://ww2.arb.ca.gov/sites/default/files/2019-11/2019%2010%2030%20SC%20AB617_Year2_Submittal_Final%20All_0.pdf

TAG July 2020 Meeting

- 2019-Designated Communities Toxic Air Contaminants (TACs)
  - **Diesel Particulate Matter (DPM) is biggest contributor**
  - **Southeast LA: highest levels**

Southeast LA

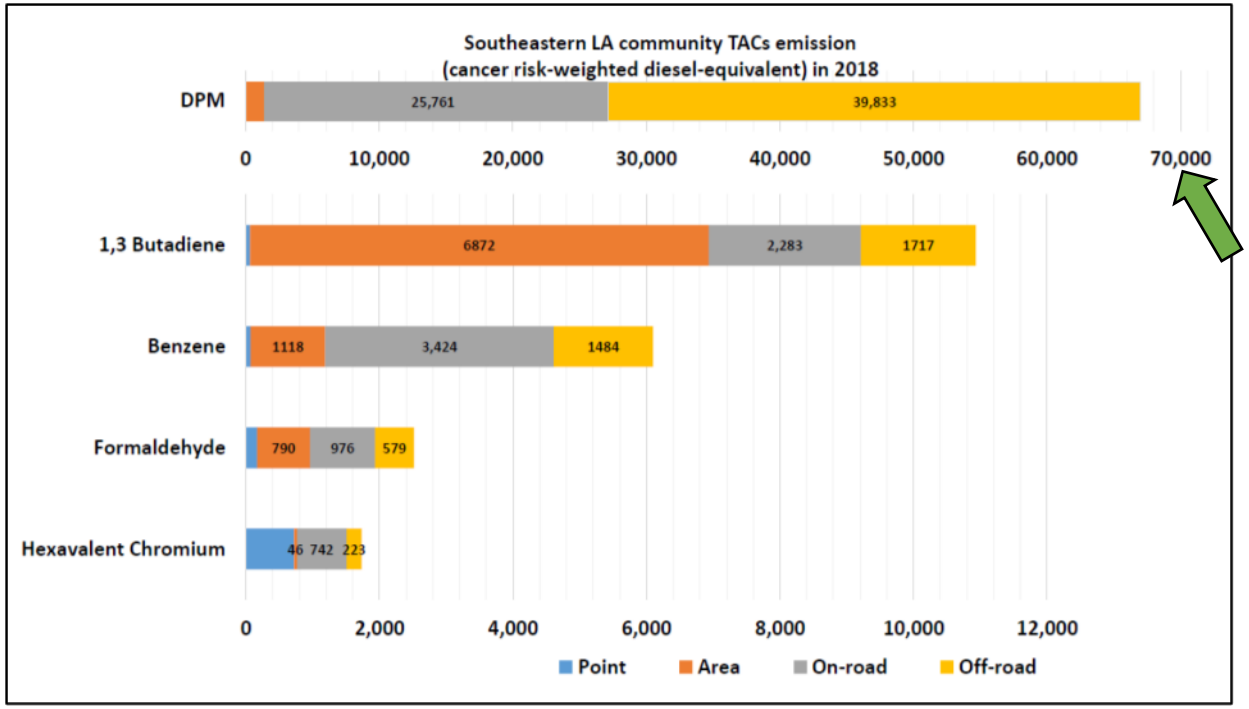


Figure from TAG notes

Eastern Coachella Valley

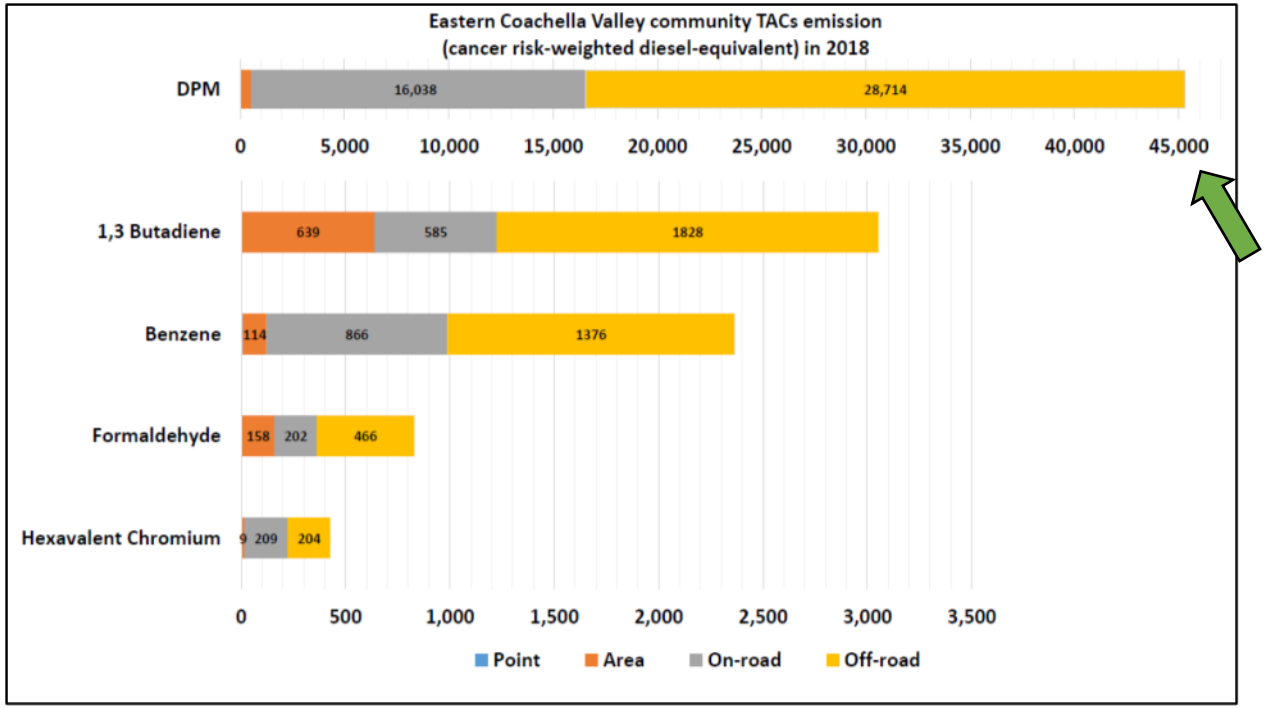


Figure from TAG notes

TAG July 2020 Meeting

- 2019-Designated Communities Toxic Air Contaminants (TACs)
  - Diesel Particulate Matter (DPM) is biggest contributor
  - **Southeast LA: highest levels**
  - **San Bernardino: high Hexavalent Chromium (Cr^{6+})**

Southeast LA

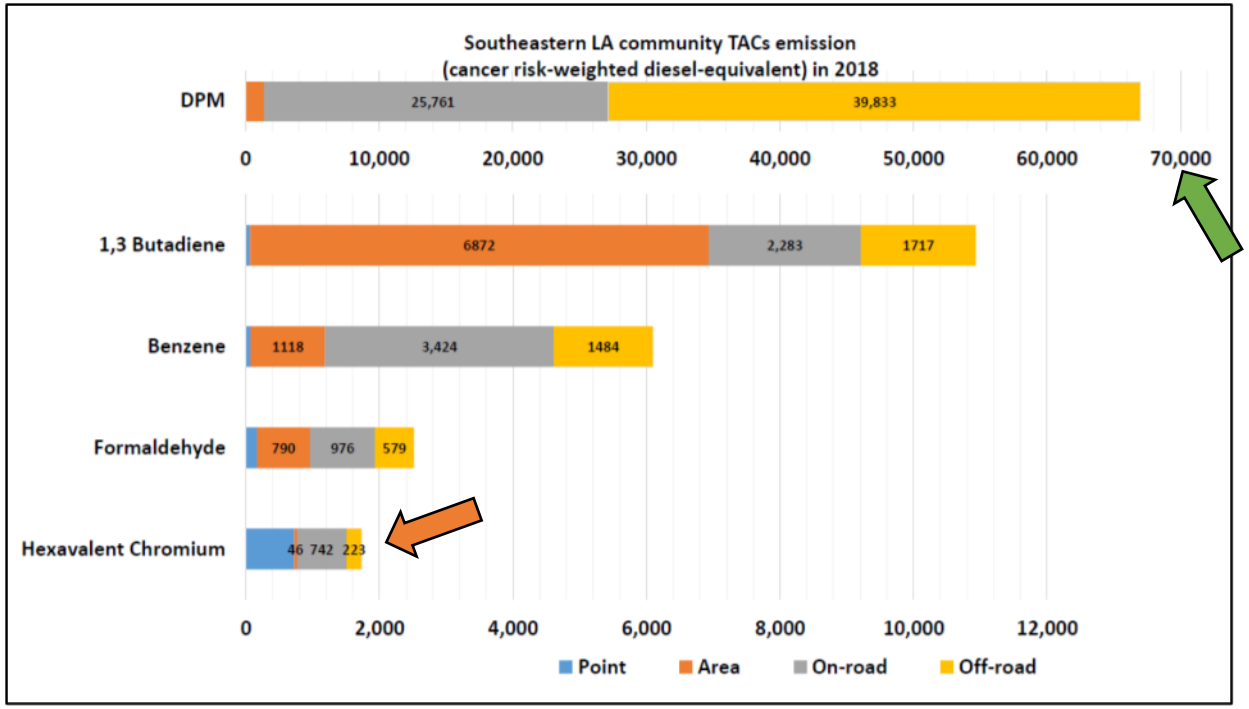


Figure from TAG notes

San Bernardino / Muscoy

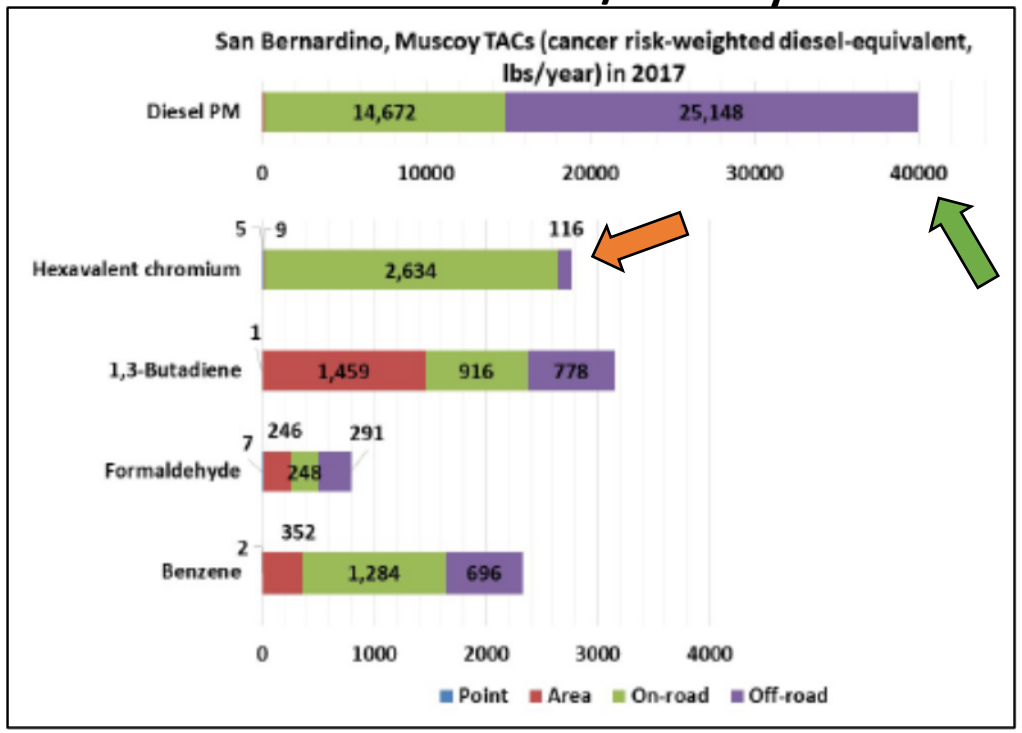


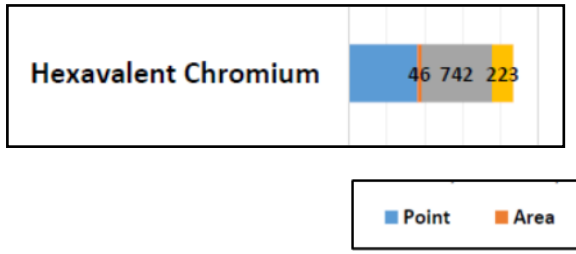
Figure from CERP

TAG July 2020 Meeting

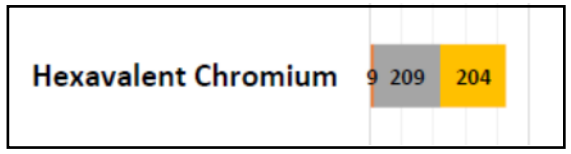
- 2019-Designated Communities Toxic Air Contaminants (TACs)
  - **San Bernardino: high Hexavalent Chromium (Cr^{6+})**
    - SELA: ~1,700 lbs/yr
      - 44% from on-road (also chemical industry)
    - ECV: 422 lbs/yr
      - 49% from on-road (also off-road)
    - SB: 2,764 lbs/yr
      - 95% from on-road (brake-wear)

Chrome Plating
(from Wikipedia)

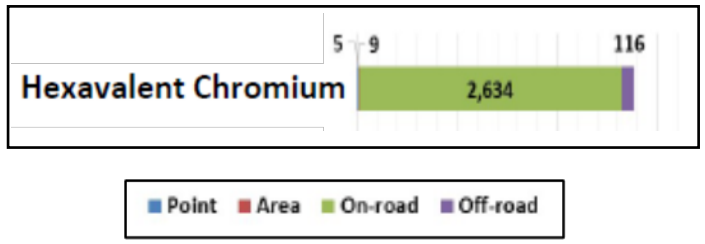
Southeast LA



Eastern Coachella Valley



San Bernardino / Muscoy

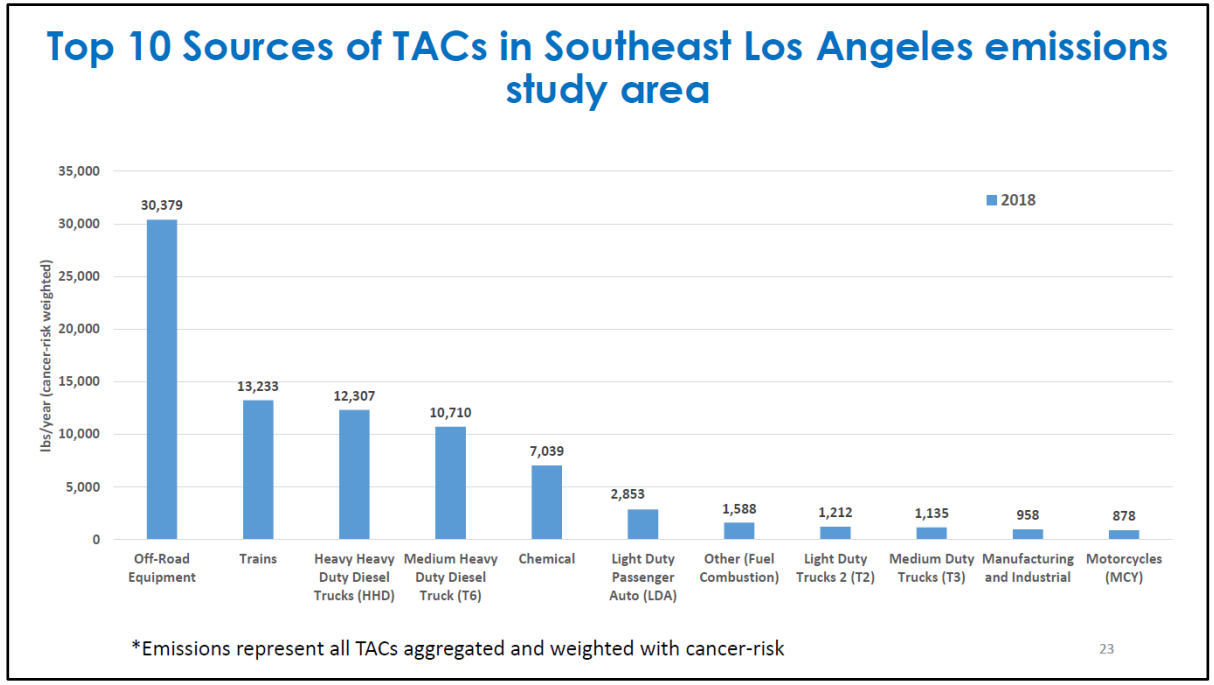


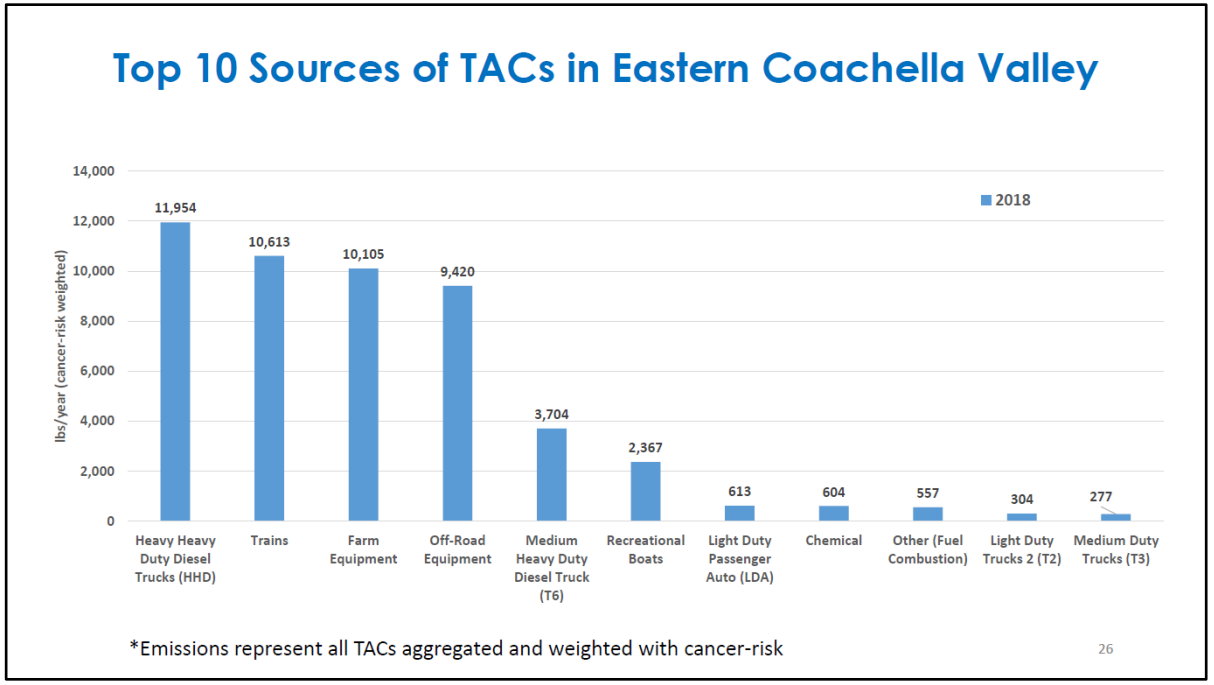
Southeast LA & Coachella data from TAG notes
San Bernardino data from CERP

Why so high & can it be reduced?

TAG July 2020 Meeting

- 2019-Designated Communities
  - Sources of TACs





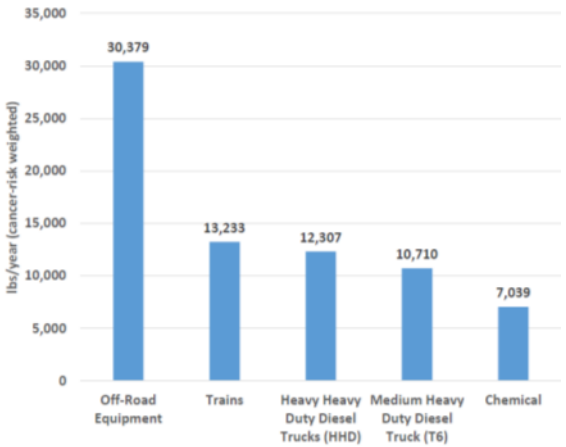
Figures from TAG notes

TAG July 2020 Meeting

- 2019-Designated Communities
  - Top 5 Sources of TACs

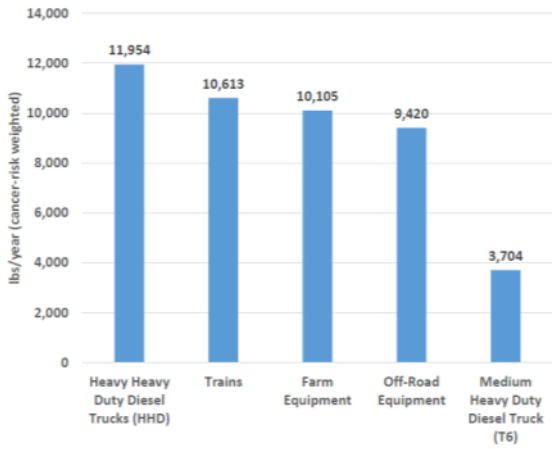
Southeast LA

1) Off-Road Equipment
2) Trains
3) Heavy Duty Diesel Trucks
4) Medium Duty Diesel Trucks
5) Chemical



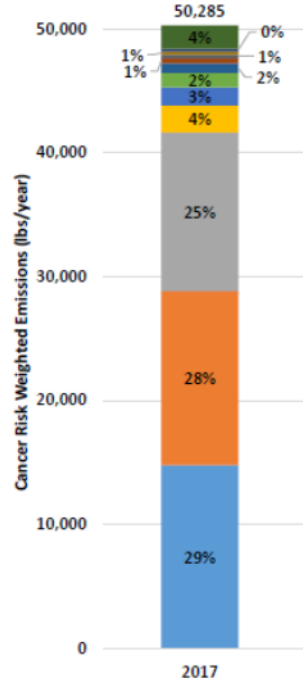
Eastern Coachella Valley

1) Heavy Duty Diesel Trucks
2) Trains
3) Farm Equipment
4) Off-Road Equipment
5) Medium Duty Diesel Trucks



San Bernardino / Muscoy

1) Heavy Duty Diesel Trucks
2) Off-Road Equipment
3) Trains
4) Light Duty Passenger
5) Chemical



Southeast LA & Coachella data from TAG notes
San Bernardino data from CERP

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- Dr. Sang-Mi Lee & Dr. Marc Carreras Sospedra
- Updates on Emissions Inventories and Modeling

- Question:

  - **Why does San Bernardino / Muscoy have such high hexavalent chromium from on-road sources?**
    - lower speeds = more braking?

  - **What can be done to reduce hexavalent chromium emissions from brakes?**
    - CERP Future Expectations:
      - Increase in chromium emissions from brake wear
      - Decrease in DPM emissions

  - **Where are the cookies?**