



Incorporating Environmental Justice into the 5-Year Strategic Research Plan

February 13, 2025

CARB Research Program

- Legislatively mandated research program
- Sound science to support CARB programs
- Oversee in-house, contracted, and collaborative research efforts

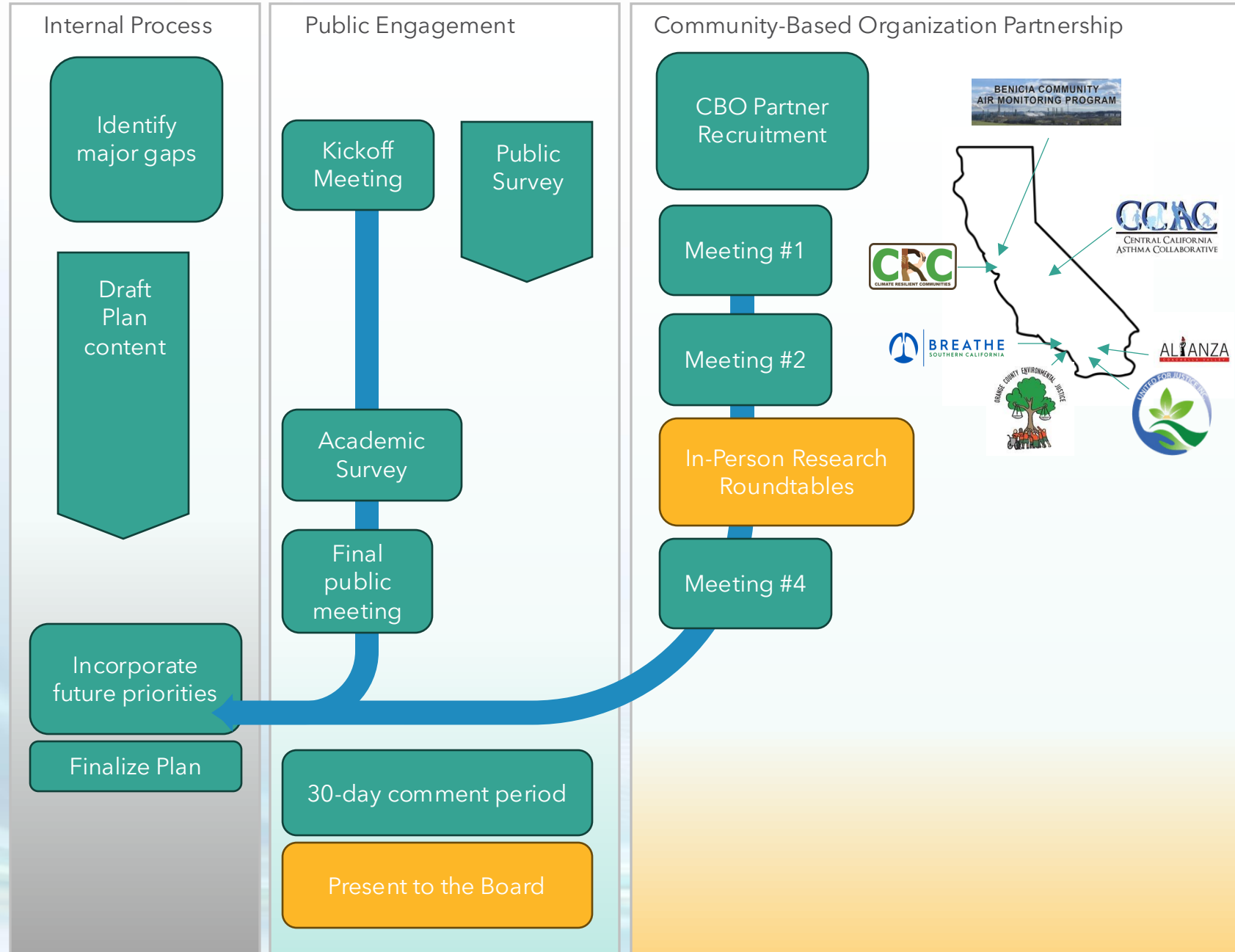


CARB Strategic Research Plans

- Last plan – Triennial Strategic Research Plan (2021-2024)
- Next plan – 5-Year Plan (2025-2030)
- Developed with public process
- Aids in research planning and outreach
- Guides annual project selection
- Delineates new priorities
 - 2025-2030
 - Environmental Justice integrated in every chapter
 - Update on racial equity and environmental justice work



Input to 5-Year Strategic Research Plan



CBO Efforts

- 7 CBOs
- Incorporate environmental justice in all chapters of the 5-Year Research Plan
- Public solicitation
 - 16 applicants evaluated on:
 - CBO or Tribe Involvement
 - SB 535 community experience
 - Air quality, climate, health, sustainable communities work
 - EJ research, advocacy, or policy work
 - Regional representation



Contract Overview

Contract term:

- April 1, 2024-March 31, 2025

Compensation:

- \$5,000 if not hosting a meeting
- \$8,500 if hosting a meeting
- Outreach support and co-hosting roundtable meetings



Developing Environmental Justice Research



Roundtables

Date	Location	CBO	Attendance (180 total)
Aug 26	Bombay Beach	United for Justice	32
Aug 27	Santa Ana	Orange County Environmental Justice	10
Aug 29	Online		35
Sept 11	Los Angeles	Breathe Southern CA	22
Sept 12	Lamont	Central California Asthma Collaborative	35
Sept 18	East Palo Alto	Climate Resilient Communities	27
Sept 23	Richmond	Benicia Community Air Monitoring Project	18

Roundtable Agenda

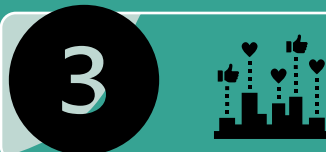
1. Meeting overview – 10 mins
2. Breakout groups brainstorm needs – 30 mins
3. Break – 5 mins
4. Breakout groups prioritize needs – 25 mins
5. Report back – 10 mins
6. Wrap up and next steps – 5 mins

Air Quality Research Needs



Air quality interactions with climate change?

- Ozone, VOCs, Particulate Matter, and Nitrogen Oxide



Equitable monitoring and durability of reducing local disparities



Distribution of local pollutant sources and what is needed to address

- Ethylene Oxide, PCBTF, PFAS, VOC, and metals



Future drivers of PM 2.5



Impacts of climate (heat) on PM 2.5 and ozone in EJ communities?
How do we support sustained improvements?



Agricultural impacts on rural communities including pesticides and dairies

Climate Research Needs



Equity impacts of climate mitigation? Impacts of green hydrogen and biofuels on priority communities?



Distribution and effectiveness of co-benefits of climate and air quality funding? Includes long-term impacts and EJ policies.



Wildfires environmental and health impacts with burn scars



Climate-driven wildfire emissions and methods to reduce exposure

Mobile Sources Research Needs



Effective ways to measure and reduce high emitters in priority communities. Includes idling



Remote sensing to understand and address emission disparities. Includes warehousing and heavy-duty traffic



Real-world impacts from and brake and tire wear with different road conditions, vehicles, uses

Sustainable Community Research Needs



What are the physical, mental, and economic benefits of public transit and walkable, bikeable, and accessible cities



What communication increases climate and air quality awareness and improves public responses to heat waves, air quality, and wildfires?



How do we incentivize car-free zones?

Health Research Needs



Short-, long-, and generational health risks from climate change and multi-pollutant exposure? Sub-populations and close disparity gaps.



Health impacts from extreme weather events - heat, flood, and droughts. Energy costs & reliability, emergency shelters, generators.



Long-term health impacts from wildfires in addition to pollution. Prescribed burning vs wildfire. Best protective measures.



What toxics impacting indoor and outdoor air must be prioritized to protect health?



Acute and chronic health impacts from the Salton Sea?



How do we monitor trends in air pollution and health at finer community scales?

Follow-Up Steps

1

Appendix with all research ideas from CBOs, Roundtables, Public meetings

2

Annual update on funded research, alignment with 5-year Plan and this process

3

Minimum 1 project a year (average) from CBO process

4

Develop processes to continue engagement in developing EJ projects

Next Steps

1

Draft Plan
March 2025

2

Final Plan &
Develop Annual Projects
Summer 2025



Questions

Discussion Questions

- General feedback on list of ideas, any gaps?
- Are there recommendations for future research planning community engagement efforts?