



# **Fiscal Year 2023-2024 Research Solicitation Public Meeting**

April 19, 2023

# CARB Research Project Priorities



# Strategic Guidance: Priorities

- Triennial Strategic Research Plan
  - Developed with public input
  - Provides roadmap
  - Aids in research planning and outreach
  - Guides annual project selection
  - Identifies strategies to operationalizing racial equity in CARB research
    - Greater transparency in project selection
    - Fostering multidisciplinary teams through Empower Innovation
    - Seeking new research partners



# Find a Partner on EmpowerInnovation.net

- **Empower Innovation** provides easy access to funding opportunities from the CEC and other providers, curated resources, events, and connections to people and organizations
- CARB's projects are available on the EI site
- You can use the EI platform to find a partner by announcing your interest in a funding opportunity and message other interested parties
- Questions: [https://www.empowerinnovation.net/en/contact\\_us](https://www.empowerinnovation.net/en/contact_us)

# Projects included in FY23-24 solicitation

- Understanding Air Quality Emission Sources
  - Understanding air quality impact from wild and prescribed fires in California at the wildland-urban interface \$600k
- Improving Health Analysis and Understanding Nexus of Health and Climate Change Impacts
  - Health impacts of land-management practices \$550k
  - Combined impacts of climate change stressors \$500k
  - Health and economic benefits of cancer risk reduction \$500k



# Important Dates

Date	Milestone
Friday April 28	Letters of interest requested – email to <a href="mailto:research@arb.ca.gov">research@arb.ca.gov</a>
Monday May 22	Pre-proposals due – email to <a href="mailto:research@arb.ca.gov">research@arb.ca.gov</a>
Wednesday June 14	All pre-proposal submitters notified of the status of their application
Wednesday July 5	Full proposals due – email to <a href="mailto:research@arb.ca.gov">research@arb.ca.gov</a>
November-January, 2023/2024	Kickoff executed contracts

# Pre-Proposal Requirements

- Use template provided on solicitation landing page
- Pre-proposal
  - Not to exceed 5 pages
  - Include approach for conducting research
  - Tip: check scoring criteria
  - Tip: Do not copy solicitation text
- CV or Statement of Qualifications for entire project team
- Describe relevant experience
- Preliminary Budget
- Equity components
  - Differs by project

Line Item Number	Line Item Description	Cost
	<b>Direct Costs</b>	
1	Labor & Employee Fringe Benefits	\$0
2	Subcontractor(s)/Consultant(s)	\$0
3	Equipment	\$0
4	Travel & Subsistence	\$0
5	Electronic Data Processing	\$0
6	Photocopying & Printing	\$0
7	Mail, Telephone, and Fax	\$0
8	Materials & Supplies	\$0
9	Analyses	\$0
10	Miscellaneous	\$0
	Total Direct Cost	\$0
11	Indirect Cost (Overhead: Rate 25%)	\$0
	Total Indirect Cost	\$0
	Total Direct and Indirect Cost	\$0

# Equity Deliverables

- Common to all projects
  - Racial equity training (implicit bias training or similar) within first few months of contract execution
  - Plain-language outreach materials
  - Quarterly updates for website
  - Equity implications, plain-language summary in final report
  - Publicly available peer-reviewed articles
  - Final seminar geared toward a wide audience



# Contracting

- Contracts – not grants
- Required by H&S code to look for expertise in UC/CSUs
  - Inter-agency agreement with UC/CSU
    - 25% overhead rate (see FAQ for details)
  - Sub-contractors can come from any other university, private research institution or firm, community-based organization, etc.
  - Sub-contractors can receive up to 25% of budget
    - Up to 50% if it can be demonstrated that no expertise exists within the UC/CSU and the contract requirements call for it

# Contracting (Continued)

- Advisory Board Transparency Rules
  - No members (or alternatives to the advisory body members who are appointed by the Board) of CARB advisory groups can be signatories to the contract or communicate with CARB regarding CARB's decision on the contracts without significant legal risk per government code 87104.
- Advisory Boards affected
  - AB32 Environmental Justice Advisory Committee
  - AB 617 Consultation Group
  - Scientific Toxic Review Panel
  - Research Screening Committee
  - Natural and Working Lands Expert Advisory Committee (new, under AB 1757)

# Project Descriptions

# Understanding the Air Quality Impacts of Wildfires and Prescribed Burns in Urban Environments of California

## \$600k

- Objective
  - Collect detailed ambient air quality data (criteria pollutants and air toxics) in downwind communities when the area is influenced by wildfire smoke.
  - Develop and execute modeling scenarios to predict the air quality impacts (in the same downwind communities) of prescribed burning activities that would have been used to treat the vegetative fuels in the area affected by the wildfire(s).
  - Evaluate the differences in air quality relative to BAU (measurements and or modeling).
- Desired Outcome
  - Comparative understanding of the potential air quality benefits and trade-offs between wildfires and prescribed fires used for land management.
  - Science-based recommendations to inform regional strategies that improve the community fire resilience plans.
- Contact for questions
  - Nehzat Motallebi [Nehzat.Motallebi@arb.ca.gov](mailto:Nehzat.Motallebi@arb.ca.gov)

# Development of Health Analysis Methodology for Natural and Working Lands Management Scenarios

## \$550k

- Objective
  - Develop streamlined methods to quantify health impacts of future statewide management scenarios for forests, shrublands, and grasslands to reduce wildfire emissions.
- Desired Outcome
  - Update health effect estimates for wildfire PM2.5 from previous work and identify new health endpoints and corresponding health effect estimates for inclusion
  - Develop methods to calculate air quality impacts from CARB-provided future wildfire emissions scenarios at statewide, regional, and subregional scales from 2025-2045
  - Generate methods to quantify annual health impacts of all scenarios at statewide, regional, and subregional scales from 2025-2045 and disaggregate health impacts by race/ethnicity and other vulnerable groups to examine equity impacts
- Contact for questions
  - Nicole Hernandez [Nicole.Hernandez@arb.ca.gov](mailto:Nicole.Hernandez@arb.ca.gov)



# Impacts of Multiple Climate Change Stressors on Health in California \$500k

- Objective
  - To estimate the health impacts of the cumulative and interactive effects of multiple climate stressors (i.e., heat, air pollution, wildfires, drought) for different regions and/or communities throughout California and include effects of social determinants of health (e.g., race/ethnicity, income levels, etc.)
- Main Desired Outcomes
  - Assessment of the most dominant and impactful climate stressors on health and their interaction and distribution among racial/ethnic subgroups within different regions of California.
  - Development of region-specific health impact estimates for the dominant climate stressors, and associated health and economic impacts estimations (if possible).
- Contact for Questions
  - Feng-Chiao Su; [feng-chiao.su@arb.ca.gov](mailto:feng-chiao.su@arb.ca.gov)

# Health and economic benefits of cancer risk reduction

## \$500k

- Objective
  - Develop a methodology to evaluate and quantify cancer health outcomes resulting from exposure to toxic air pollutants
- Desired Outcomes
  - Identification of major cancer types associated with California-relevant toxic air pollutants (e.g., DPM, Benzene, 1,3 Butadiene, Hexavalent Chromium)
  - Development of a methodology to convert cancer risk to possible cancer cases and to estimate associated monetization
  - Valuation could include direct medical and hospitalization costs and other costs related to cancer cases
- Contact for questions
  - Hnin Hnin Aung [Hnin-Hnin.Aung@arb.ca.gov](mailto:Hnin-Hnin.Aung@arb.ca.gov)