

Additional Information on: Quantifying the health benefits and ecosystem service benefits of California's urban green spaces

Introduction

The California Air Resources Board (CARB) staff held a virtual public meeting Thursday July 11, 3:30-5:00pm to help interested parties learn more about the solicitation for research pre-proposals. At this meeting a number of questions were raised on the project: "Quantifying the health benefits and ecosystem service benefits of California's urban green spaces". The questions asked at the meeting and answers are listed here to provide additional information on the goals and requests for the project. This information is intended to assist those interested in applying for this project.

Questions and answers

What metrics of urban greenness should the applicants use? Should urban greenness be characterized at the species level?

CARB is not specifying specific datasets or methods of quantifying urban greenness. CARB will be creating maps of trees, shrubs, and grass along with other datasets over the coming years, and this data should be used whenever possible. However, there are several attributes of urban greenness that should be taken into account when calculating the health impact of urban green space. Some of these attributes should include but are not limited to whether the green space is trees, shrubs, or grasses, accessibility, size, quality, and any other important variable for calculating how these spaces impact health, both positively and negatively. Additionally, the data or methods used should be: 1) repeatably measured; 2) statewide in extent; 3) spatially explicit; and 4) projectable (i.e. to understand economic and health benefits related to future greening).

The quantification of urban greenness should be to the best of the applicant's ability and aligned with the current state of science and data availability. CARB is mapping tree cover, shrub cover, and grass cover in and around urban communities. Additional datasets may be needed in conjunction with our data to sufficiently characterize urban greenness attributes. CARB will work with the successful applicant to ensure this contract builds upon existing and ongoing mapping efforts.

Are there specific tools that should be used?

The process for quantifying the impacts of urban greening should utilize CARB natural and working lands inventory data whenever possible. This data is not yet complete but will include maps of annual tree, shrub, and grass cover, along with structure and impermeable surface maps. Any data used should be freely available so that this process for calculating impacts can be replicated by CARB staff without additional cost into the future. Beyond these stipulations, CARB is not specifying specific datasets or methods of quantifying health impacts. The choice is up to the investigators who should propose methodologies that could be used. Please note that this contract is looking at current and future levels of urban greenness.

Should the analysis use existing models, or should new models be developed?

Either choice is an option.

Should dose-response functions related to health benefits be specific to California?

CARB is not specifying which dose-response functions to use. The successful applicant will use the best available data and methods and determine what is most appropriate for the proposed health end points.

Should health impacts from urban greening be from self-reports or secondary sources of data?

CARB is not specifying specific datasets or methods of quantifying health impacts. Please note that health impacts need to be relevant to regional and statewide scales and if possible, local scales.

Can field sampling be a part of this work?

Field measurements required for the proposed work are allowed at the researcher's discretion. All methods, including field measurements, need to fit within the project budget.

How will the environmental justice-based urban greening scenarios be developed?

Scenarios for how urban greening will be implemented in the future will be developed with state agencies and in consultation with this contract's community focused advisory group.

Will an outcome from this contract be community engagement?

There will be no public-facing tools resulting from this contract. However, one deliverable we ask for is a plain language summary at the end of the contract which will be accessible to communities.