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Mr. Jason Gray
Cap-and-Trade Program, Branch Chief
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: Public comments on methods for determining whether offset projects result in Direct Environmental Benefits in the State (DEBS)

Dear Mr. Gray:

Thank you for the opportunity to provide input on cap-and-trade program design decisions. We offer these recommendations on how direct environmental benefits in the state (DEBS) should be determined for offset projects associated with credits used to cover emissions starting in 2021, as required by AB 398. We offer these comments as researchers with expertise in environmental and public health, air quality, water quality, climate equity, and environmental law.

AB 398 defines a limit on the use of offsets by a regulated entity as 4% of that entity's emissions during 2021-2025 and 6% of that entity's emissions during 2026-2030. The law further requires that half of that limit is reserved for credits from offset projects with direct environmental benefits in the state, defined as: *"the reduction or avoidance of emissions of any air pollutant in the state or the reduction or avoidance of any pollutant that could have an adverse impact on waters of the state."*

ARB has proposed using project-by-project evaluations of DEBS based on information provided by the offset project developers. ARB also proposes allowing any project outside of the state located beside a water body that flows into California to be considered to result in direct environmental benefits in the state.[1] We think this is not an effective approach and strongly recommend that ARB develop objective science-based evaluation criteria for each protocol.

The project-by-project evaluation approach that ARB proposes has a number of critical disadvantages. First, it would create a substantial ongoing administrative burden for the state which would need to evaluate the arguments put forward by each individual project developer. Second, this process would also create uncertainty for offset project developers who are considering submitting their projects for credit issuance, and could also increase their costs of reporting and monitoring. Third, importantly, as ARB seeks objective and even-handed methods for evaluating DEBS, basing evaluations on the information provided by project developers could result in different DEBS assessments for similar projects. ARB would need to evaluate the articles and data sources submitted by each project developer in a context where individual articles can point to conflicting conclusions. This approach unfairly benefits project developers with access to academic literature, and those who

[1] See, *Preliminary Discussion Draft of Potential Changes to the Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms* (pages 17-18), and ARB's June 21, 2018 cap-and-trade workshop presentation, both found under the June 21, 2018 meeting here: https://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm

craft arguments using selectively chosen articles presented out of context of the relevant body of literature. Lastly, project-by-project evaluations of environmental benefits contradicts ARB's overall offset strategy which moves away from project-by-project evaluations and assesses offset quality through identifying objective metrics at the protocol level.

Instead, ARB should do its own comprehensive evaluation of relevant literature and analytical methods currently used to estimate impacts of pollution on populations to draft a set of objective criteria for determining which offset projects have direct environmental benefits in the state for each of ARB's six protocols. These criteria should define the impacted population, since the benefits of reductions in air and water pollutant emissions will vary based on the population's susceptibility and pre-existing pollution levels from other sources that contribute to cumulative exposures. Such an approach has precedent and is in line with existing regulations that geographically incentivize the investment of cap-and-trade revenues to disadvantaged communities as characterized by CalEnviroScreen.

To create objective metrics for identifying projects with DEBS, ARB should review each of California's six offset protocols to identify criteria for projects that clearly do or do not generate meaningful air pollution and water quality benefits. This would result in a positive list and a negative list of projects based on a set of project characteristics. For example, a mine methane capture (MMC) project in Pennsylvania clearly does not directly impact water quality in California. But other projects require more careful assessment. For example, can a livestock digester project outside of California affect water quality of river water flowing into the state, and if so, how close to California's border and to a major river does the project have to be to have such an effect? What are the characteristics of a forest project that would improve river water quality flowing into the state? Should the state prioritize DEBS designation of projects located within the state over those outside the state, that may have fewer environmental benefits to California residents? If so, what criteria should be applied to this prioritization process?

ARB may decide to draw a clear line between the two categories, or may decide that some projects sit between a clear positive or negative determination. In these exceptional cases the DEBS of those projects will be determined on a project-by-project basis. To provide maximum certainty to present and prospective offset project developers, the state should define clear guidelines for making that project-level determination, and project developers should be required to explicitly address these criteria in their proposals.

We note that AB 398 defines the requirement as a "direct" environmental benefit related to the release of an air or water pollutant. In common parlance, a "direct" effect or benefit means that the activity itself is responsible for a change in the release of an air or water pollutant, in contrast to effects mediated by the market, global atmospheric circulation, or other secondary causal pathways which are more difficult to observe, predict, measure, and quantify. This commonplace understanding of the word "direct" is supported by existing law. AB 32 defines a direct emissions reduction thus: *"'Direct emission reduction' means a greenhouse gas emission reduction action made by a greenhouse gas emission source at that source."*[2] DEBS therefore refers to a reduction or avoidance of an air pollutant in the state at its source, or the reduction or avoidance of a pollutant that adversely impacts waters of the state at its source.

[2] California Health & Safety Code § 38505(e)

We also note that simply being located adjacent to a waterway flowing into California does not mean that a project generates DEBS within the state. Not all pollutants affect water quality, and the location of an offset project along a waterway flowing into the state does not necessarily benefit waters that eventually flow into the state. If ARB were to deem any project located in a watershed of a river flowing into California to be considered DEBS, any project of any type in the Colorado River Basin, comprising almost all of Arizona, and portions of Colorado, Utah, Nevada, New Mexico, and Wyoming, would be considered to reduce water pollution in California.

We welcome that ARB made explicit in its June 21, 2018 workshop presentation and its *Preliminary Discussion Draft* that DEBS are in addition to benefits from reducing or removing greenhouse gas emissions. This is necessarily the intent of the law since if it were not true, the DEBS requirement would be meaningless. All offset credits are required to reduce or remove GHGs by law, and offsets simply shift greenhouse gas emissions from the offset project site to the site of the covered emitter that submits the offset credit.

We emphasize that whether a project has direct air quality and water quality benefits in the state is a scientific question. The six protocols that ARB has already adopted present a limited set of impact pathways to directly release air pollution into the state and directly affect California's water quality. These can be assessed at the protocol level with clear sets of criteria.

The California Air Resources Board is charged with "protecting the public from the harmful effects of air pollution and developing programs and actions to fight climate change," and aims to implement California's leadership in the country and the world in effective air quality regulation.[3] With hundreds of staff members with expertise in protecting human health from the impacts of air pollution, ARB has the ability and mandate to set standards and criteria for identifying offset projects that meaningfully benefit human health in the state. ARB can draw from the expertise of sister agencies or the water quality capacity of researchers and professionals in the state for guidance on developing criteria for offset projects that directly impact water quality in California.

ARB indicated in its workshop on June 21 of this year, and the accompanying draft regulatory amendments, that it intends to delegate the development of DEBS criteria to those submitting public comments on its draft regulatory amendments, and to offset project developers presenting ARB with articles and data as evidence that their offset projects have DEBS. The interest of industry participants for loose standards that would allow for the greater sale of offset credits, and the limited time and attention of independent air and water quality specialists to submit public comments, means that ARB's proposed delegatory approach is almost certain to result in regulations based on biased and incomplete data. It is clear to us that in order for ARB to meet its responsibility, and its aspirations to lead the country and the world in regulation that protects public health, the Agency must ensure that clear standards and criteria for air and water quality regulation under its purview are developed based on comprehensive and unbiased impact assessments.

In sum, we strongly recommend that ARB:

- determine de minimis direct releases of air pollutants and effects on water quality considered to impact human health in California as the foundational criteria for DEBS;
- develop these thresholds taking into account the impacted population, since the benefits of reductions in air and water pollutant emissions will vary based on the population's

[3] https://ww2.arb.ca.gov/about

susceptibility and pre-existing pollution levels from other sources that contribute to cumulative exposures;
- use these thresholds to develop simple positive and negative lists of project characteristics for DEBS consideration for each of the six protocols;
- also use these thresholds to develop methods for assessing DEBS for individual projects not included in the positive or negative lists developed;
- clarify that "direct environmental benefits in the state" means that the activity itself is responsible for a change in the release of an air pollutant located in the state or pollutant affecting water quality in the state, in contrast to effects mediated by secondary causal pathways like the market or global atmospheric circulation;
- recognize that not all projects located beside a waterway flowing into the state, or in a watershed of a river flowing into the state, directly impacts water quality in the state.

Most sincerely,

Barbara Haya, PhD
Research Fellow, Center for Environmental Public Policy
University of California, Berkeley
bhaya@berkeley.edu

Lara Cushing, PhD
Assistant Professor, Department of Health Education
San Francisco State University
lcushing@sfsu.edu

Rachel Morello-Frosch, PhD
Professor, School of Public Health and Dept of Environmental Science, Policy and Management
University of California, Berkeley
rmf@berkeley.edu

Manuel Pastor, PhD
Professor, Sociology / American Studies & Ethnicity
Director, Program for Environmental and Regional Equity
University of Southern California, Los Angeles
mpastor@college.usc.edu

Michael Wara, PhD, JD
Director, Climate and Energy Policy Program
Senior Research Scholar, Woods Institute for the Environment
Stanford University, Palo Alto, CA
mwara@stanford.edu

David Wooley, JD
Executive Director, Center for Environmental Public Policy
& Visiting Professor
Goldman School of Public Policy
University of California, Berkeley
dwooley@berkeley.edu