**Concept Paper for the Cap and Trade Auction Proceeds Second Investment Plan**

The Center for Climate Change and Health at the Public Health Institute applauds CARB’s significant actions to reduce greenhouse gas emissions, and the thoughtful nature of the Concept Paper for the Cap and Trade Auction Proceeds Second Investment Plan.

We strongly support many of the *themes*of the Concept Paper, including:

* The emphasis on investments that support meeting mid- and long-term climate goals;
* The focus on investments that benefit disadvantaged communities;
* A systems approach that integrates across sectors and geographies;
* Integrated approaches that support implementation of multiple solutions in a single community;
* Greater attention to short-lived climate pollutants, including methane; and
* Investments in California’s rural communities and small, local businesses.

We are concerned that the Concept Paper does not systematically prioritize investments with public health co-benefits. We believe the suggestions below will strengthen the investment plan and increase the health (and health care cost) benefits that could be achieved from the Second Investment Plan.

1. **Transportation and Sustainable Communities**:

The repeated reference to the fact that 60% of the continuous appropriation for GGRF already goes public transportation and sustainable communities suggests that there is no need for additional investment in these GHGE reduction strategies. In fact, more investments in strategies to reduce vehicle miles traveled would yield significant GHG reductions and by far the most significant health benefits of any strategy to reduce transportation emissions.

Active transportation: The projected GHG reductions of modest shifts from automobile to active transportation are comparable to those that can be achieved by low carbon fuels and fuel efficiency. But the projected health benefits of such a mode shift far surpass those of low carbon transportation. Over two dozen recent studies and health impact assessments in California, the U.S. Midwest, and Europe estimate substantial health benefits with a mode shift to active transportation. Estimated benefits were largely due to increases in physical activity levels, which greatly outweighed potentially detrimental effects of traffic incidents and air pollution exposure to pedestrians and bicyclists.[[1]](#footnote-1)

In studies conducted by the California Department of Public Health in collaboration with the Southern California Association of Governments and the Bay Area Metropolitan Transportation Commission, feasible increases in active transportation would result in huge annual reductions in chronic disease burden in the State, including 12 - 14 % reductions in cardiovascular disease (the leading cause of death in California), and cumulatively could prevent 2400 –4100 deaths in Southern California and the Bay Area, respectively. In contrast, low carbon driving is projected to prevent only 29 deaths annually in the Bay Area.

It is critically important that active transportation infrastructure is safe and user-friendly. Currently, nearly 30% of all motor-vehicle related fatalities in California are in pedestrians and bicyclists - far out of proportion to mode share. Too many current active transportation projects provide a hodge-podge of on-road non-segregated “bicycle lanes” on busy streets that often end without warning. No wonder people are afraid to commute by bicycle.

The toll from pedestrian and bicyclist fatalities and disabling injuries is greatest in low-income neighborhoods and communities of color. This is not surprising, as low income individuals are far more likely to use active transportation and public transit - a fact that highlights the need to ensure adequate funding for safe, pleasant, and connective active transportation infrastructure in and to/from disadvantaged communities.

Over half of all vehicle trips in California are under 3 miles and thus conducive to walking and biking. Many other cities across the world have achieved far great mode shift than any city in California, and there is no reason, particularly with our mild climate, that California cannot attain the same. To do this, we need interconnected safe and pleasant active transportation infrastructure that seamlessly connects people to jobs, essential services, recreation and open space, and transit, *on a regional basis.*

Programs to foster up-take of active transportation and disincentive the use of private automobiles are also necessary. For example, we encourage CARB to consider funding for bicycle rebates to enable purchase of safe and comfortable commute bicycles. Other examples include adequate bicycle parking, better active transportation/transit commuter incentives, etc., all of which should be eligible for GGRF funding.

We urge CARB to place as much (or greater) emphasis on active transportation and transit as on technological solutions - a big shift from its current emphasis. Existing CARB goals for GHG reductions from travel demand are anemic. We suggest that California set a goal not to merely reduce growth in vehicle miles, but to actually reduce vehicle miles traveled; CARB should also adopt goals to triple bicycle, double pedestrian, and double transit by 2020. Significantly expanded funding to meet these goals is required, far beyond the inadequate funding to the Active Transportation Program. Explicit use of GGRF funding to meet the demand, including planning for integrated regional active transportation systems, should be a high priority in the concept paper, as it yields both GHGE reduction and health co-benefits. We strongly encourage CARB to incorporate a specific active transportation strategy in its second investment plan.

Sustainable Communities: While we strongly support compact and transit-oriented communities, it is vital that infill and transit-oriented development be *healthy and climate resilient.* We urge you to incorporate specific considerations that should be included in GGRF funding for infill and transit-oriented development projects, such as:

* Connected and safe active transportation infrastructure (per above) should be incorporated into all funded transportation and housing projects.
* Requirements for green space and access to open space. Especially as density increases, it is critical that we provide all Californians with access to parks, community gardens, and green and open space. Small per-lot requirements for development-specific privatized “open space” are inadequate from a public health perspective. Access to parks that provide safe physical activity and opportunities for social contact, and access to nature, are important for health and emotional well-being. Community gardens provide opportunities to access fresh healthy foods, and for building social networks and cohesion. And green infrastructure provides a wide array of environmental benefits, including carbon sequestration and improved air quality, water filtration and groundwater basin recharging, and storm water management.
* Mitigation measures to reduce risk associated with siting near busy roadways, such as appropriate site design, increased ventilation/filtration requirements (building on those required, for example, by San Francisco), noise reduction measures, and use of trees/landscaping to adsorb particulates. Mitigation measures to reduce health risks associated with noise should also be incorporated.
* Anti-displacement measures: Current TOD and infill projects are leading to displacement of long-term residents. Anti-displacement measures are fundamental to healthy sustainable communities strategies and should be incorporated into all projects that receive GGRF funding.

Disadvantaged Communities (p 13): We strongly support the strategies listed to address the needs of disadvantaged communities, such as further investments in public transit, enhanced access to safe active transportation, and modernization of port and freight activities that simultaneously reduce GHGE and improve health in communities impacted by goods movement.

We believe that zero and low emission vehicles rebates should be evaluated to assess the extent to which such rebates actually benefit non-wealthy residents and non-wealthy neighborhoods in California. We appreciate that current rebate programs have some design features to increase rebates for low-income purchasers. But perusal of available maps of rebates suggests that these rebates may serve to funnel public dollars to higher income areas, and it appears that fewer rebates are going to communities in the San Joaquin and Coachella valleys. Substantially more robust supports may be required to allow low-income residents to benefit from zero emission vehicles. We recommend that a comprehensive full life-cycle assessment of the health and climate impacts of public investments in zero-emission vehicles versus active transportation infrastructure and public transit be conducted.

Figure 3 (p 13): We are concerned that Figure 3 appears to suggest that no additional funding needs to go into Sustainable Communities and active transportation and transit; we believe additional funding is critical to meet demand, and that these strategies have significant climate and health co-benefits.

Co-Benefits (page 13): We encourage CARB to consider the full breadth of co-benefits for various GHGE reduction strategies. Reducing toxics exposures from transportation is critical. But, from a population health perspective, greater investments in strategies that reduce per-capita VMT are likely to have greater population health benefits than maintaining current (or higher) per-capita VMT in low or zero-emission vehicles. The need for mandatory anti-displacement measures is also critical.

Clean Energy and Energy Efficiency

We support funding for healthy energy efficiency measures and renewable energy access for low-income homeowners and for residents. Personal conversations between CEC and CDPH staff while developing the state’s “Preparing California for Extreme Heat” guidance (2012) suggested that CEC staff felt they could include more resources for health as part of Title 24 and various energy efficiency programs. Residential weatherization and energy retrofits funded with GGRF should require inclusion of “healthy homes” measures, to remediate unsafe conditions and ensure healthy indoor air quality. Multi-unit housing should be a priority for energy upgrades. We encourage consideration of mechanisms to ensure that the co-benefits of reduced energy costs are passed on from landlords to tenants following energy retrofits. GGRF for energy efficiency and retrofit projects in larger buildings (e.g. State agency and local government buildings) should include local resident training and workforce development components, We support other comments regarding the need for a workforce development category within clean energy and energy efficiency.

We strongly urge CARB to incorporate a scaling up of funding for cool roofs as a strategy for energy efficiency. As California warms, our need for a multitude of measures to increase heat resilience and mitigate urban heat islands will increase. Cool roofs provide significant GHGE reduction and heat resilience co-benefits, reducing the risks of heat islands particularly in disadvantaged communities. Because many roofs in low-income neighborhoods need repair prior to the installation of solar or of cool roofs, it is important that these costs also be eligible for GGRF funding.

We support incentives for installation or upgrades of low-GWP refrigerant systems, and suggest that these incentives be structured in a way that simultaneously incentivizes provision of refrigeration for healthy foods such as fresh fruits and vegetables, particularly in low-income neighborhoods in “food deserts”. For example, priority funding could go to small neighborhood/corner stores that install low-GWP refrigerant systems for the purpose of stocking fruits and vegetables.

Urban greening

We support funding for tree planning and planting in urban and rural areas, including tree canopy along bike and walk routes to foster greater heat resilience and promote active transportation. We support significantly greater investment in parks and green space, particularly in disadvantaged communities, and linkage of these spaces and peri-urban open spaces to active transportation infrastructure.

We also strongly support the use of GGRF for conservation of agricultural lands, sustainable climate-resilient agriculture, and carbon soil sequestration.

Additional concerns:

We have significant concerns about the use of the current CalEnviroScreen as the sole methodology for identification of disadvantaged communities. The Public Health Alliance of Southern California and the Bay Area Regional Health Inequities Initiative, both comprised of local health departments, have identified many communities with very significant health and economic disadvantage that are not identified as DAC by CalEnviroScreen. It is critical that this issue be addressed.

Secondly, we are concerned that the full scope of health co-benefits must be more adequately integrated into CARB’s approach to co-benefits, and urge CARB to work closely in concert with the public health community to determine a standardized approach to the quantification of a full range of health co-benefits (and potential health harms) of all GGRF funded programs.

We urge CARB to implement more technical assistance to low-resourced communities to prepare and implement GGRF grants. Without such assistance, the most disadvantaged communities will not be able to fully benefit from the availability of the DAC set-asides.

Thank you again for the opportunity to comment on the concept paper for the second investment plan.

Linda Rudolph, MD, MPH

Director, Center for Climate Change and Health

Public Health Institute

1. Mueller N, Rojas-Rueda D, Cole-Hunter T, de Nazelle A, Dons E, Gerike Rg, et al. Health impact assessment of active transportation: A systematic review. Prev Med 2015; 76:103–114. [↑](#footnote-ref-1)