



December 19, 2017

Brett Rude  
Environmental Specialist  
Department of Ecology

Mike Boyer  
Senior Diesel Programs Specialist  
Department of Ecology

**RE: Comments on Ecology’s Proposed Volkswagen Beneficiary Mitigation Plan**

Dear Mr. Rude and Mr. Boyer,

Climate Solutions appreciates the opportunity to provide comments on the Department of Ecology’s (“Ecology”) Proposed Volkswagen Beneficiary Mitigation Plan (“proposed mitigation plan”). Climate Solutions is a clean energy nonprofit organization working to accelerate practical and profitable solutions to the climate crisis by galvanizing leadership, growing investment, and bridging divides. The Northwest has emerged as a center of climate action, and Climate Solutions is at the center of the movement as a catalyst, advocate, and campaign hub. For almost 20 years, we have cultivated political leadership in the Northwest under the proposition that clean energy and broadly-shared economic prosperity go hand-in-hand, building a powerful constituency for local, regional, and national action on climate and clean energy.

Overall, we support the direction of Ecology’s proposed mitigation plan dedicated, and appreciate the overarching focus on maximizing climate benefits and public health benefits, especially in communities that have been disproportionately impacted by air pollution. We support the overall funding allocation, and particularly the prioritization of electrification in most categories, but question the size of the funds dedicated to marine vessels.

**Aligning the proposed mitigation plan with state climate goals**

Climate Solutions thanks Ecology for recognizing the importance of climate benefits throughout the proposed plan. RCW 70.235.020 directs Washington to achieve limits of 1990 emissions levels by 2020, 25% below 1990 levels by 2035 and 50% below 1990 levels by 2050. In December 2016, Ecology provided recommendations to the legislature to update these limits to match best available science—40% reduction by 2035, and 80% by 2050. While the recommendations have not yet been adopted as a matter of law, the consent decree gives discretion to implement an investment strategy that could simultaneously facilitate achieving

these limits. Failing to consider state climate change mitigation goals in the mitigation plan would risk greater costs to taxpayers to achieve the greenhouse gas goals that could have been achieved in part with these funds.

As discussed in the Climate Solutions comment letter dated March 23, 2017, alternative fuels such as CNG and propane would be harmful for achieving Ecology's recommended GHG limits. Vehicles powered by CNG or propane may reduce tailpipe greenhouse gas emissions by approximately 12-25% compared to diesel or gasoline. In contrast, zero-emissions vehicles do not emit any tailpipe emissions from the vehicle and greatly facilitate achieving the state's greenhouse gas limits. Washington recently completed a deep decarbonization study consistent with the Ecology's updated greenhouse gas limit recommendations. One of the scenarios relied heavily on electrification as a pathway, and we believe Ecology's focus on electrification is consistent with the study's findings and the direction of the state on climate change.

Although the proposed mitigation plan emphasizes climate benefits, we would urge Ecology to provide additional clarity on a process for incorporating greenhouse gases when evaluating proposed projects. At a minimum, investments that are inconsistent with existing state law on greenhouse gas reductions should be fully excluded, given the significant risk of lock-in and the difficulty in unwinding major capital investments once they are made. Any investment Ecology chooses to make in alternative fuel vehicles, engine retrofits, and other projects should assume that the vehicle and its successors of the same fuel type will remain in service, and thus must be consistent with long-term greenhouse gas limits in 2035. Taking a short-term view will ultimately require deeper, more expensive reductions in future years could pose a significant risk of stranded assets for projects that are not consistent with Washington's limits.

### **Alignment of investments with the mitigation plan principles**

Reducing greenhouse gas emissions and improving air quality will require a major transformation in the transportation sector, and most notably in heavy- and light-duty vehicles. On-road vehicles are responsible for nearly three-quarters of Washington's greenhouse gas emissions in the transportation sector, and almost half of the NOx and PM2.5 emissions. Significant investments in on-road pollution reduction are well aligned with Ecology's principles of maximizing public health benefits, air quality co-benefits, and improving air quality for disproportionately impacted communities. We support the proposed mitigation plan's strong emphasis on electrification of public fleets and other on-road heavy-duty vehicles, as well as putting the maximum percentage allotted to electric vehicle supply equipment.

Almost half of the funds in the proposed mitigation plan are available for marine vessels. Marine vessels and locomotives account for only 12% of NOx emissions, many of which are not emitted in close proximity to residential communities. While we support these investments, we question the extent to which public health benefits will be realized with such a large percentage of the funds going to marine vessels. For example, the concentration of particulate matter decreases significantly with increased distance from the point of

emission. The highest toxicity zones for particulate matter are generally within 500 feet of a highway, with slightly elevated toxicity zones within 1,500 feet of a highway.<sup>1</sup> There are other factors influence the concentration of air pollutants beyond distance, but the proximity to the source of emissions is a very important indicator of co-benefits likely to be achieved through clean transportation investments. While there is a high potential for reducing overall NOx and PM 2.5, much of the pollution is emitted in locations further away from population centers, reducing the potential for significant public health benefits. Climate Solutions supports investments in marine electrification, but believes that the allocation should be reduced to a lower amount to better align with the principles of the proposed mitigation plan.

### **Cost-effectiveness and leveraging funds**

Climate Solutions shares Ecology's desire to ensure cost-effective investments that maximize air quality benefits in Washington and leverage additional funds. However, we do not believe this criterion should result in projects being chosen purely on the basis of dollar per ton reduced, nor should it preclude projects that may have limited access to additional funding opportunities.

Climate Solutions recommends that Ecology direct investments on an incremental cost basis, and weigh operating cost considerations during the evaluation of a project. Various jurisdictions have created programs that fund 80% of the incremental cost of a project, ensuring that fuel savings and reduced O&M costs make the clean vehicle choice a cost-effective option for the owner, once operational savings are considered. This is a strong model to consider in order to prevent funding projects that would have been invested in without the benefit of the settlement funds.

In limited situations, a higher investment level could help achieve reductions in an accelerated timeframe that ensures air quality benefits in disproportionately impacted communities. If this framework is adopted, we recommend that Ecology allow certain projects to exceed the 80% threshold, such as for fleets that operate in vulnerable areas but are not currently planning, or do not have the ability to afford, new procurement.

Lastly, any cost-effectiveness test should also consider the cost of any greenhouse gas emissions associated with the project. Because greenhouse gases have a significant societal cost – and potentially an upfront financial cost pending policy discussions – Climate Solutions recommends that Ecology include the social cost of carbon when as calculated in the most recent Intergovernmental Panel on Climate Change assessment report when evaluating the cost-effectiveness of projects. Considering this societal cost upfront will help to ensure that investments are aligned with the state's goals on climate change mitigation and prevent future costs associated with climate change policies currently being considered.

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<sup>1</sup> Zhu, Y., Hinds, W.C., Seongheon Kim, S., and Sioutas, C. (2012) [\*Concentration and Size Distribution of Ultrafine Particles Near a Major Highway\*](#), Journal of the Air & Waste Management Association, vol. 52

## **Transformational approach to investments**

Climate Solutions appreciates Ecology's recognition that the Volkswagen settlement provides an opportunity for transformative improvements to the transportation sector in Washington. We are supportive of immediate air quality improvements, but also believe it is critical that the investments result in durable, long-term reductions of dangerous air pollutants.

The coming years promise significant new developments in the transportation sector, including increased battery storage capacity, significant cost reductions in transportation electrification technologies, electric options for new vehicle classes, and an increase in charging infrastructure availability. We are enthusiastic about the rapid progress of transportation electrification technology, but acknowledge that certain categories of the transportation sector are not yet well suited for electrification. However, as technology advances, these technologies may reach deployment more quickly than original projections.

For emerging technologies, limited supply chains and low demand often result in costs that are too high to stimulate investment. Government has historically played a role in accelerating deployment of emerging technologies by generating demand through regulation, as well as direct subsidies, like existing federal and state incentives for alternative fuels and electric vehicles. The Volkswagen settlement funds offer a unique opportunity to exert the same influence on markets, bringing down costs and accelerating deployment of vehicles that are consistent with emission reductions goals. Rather than spending all of the available settlement funds immediately - especially in cases where this would entail a fossil fuel investment - we recommend that Ecology consider reserving a portion of the funds for emerging technologies that could provide greater air quality and emission reduction benefits over the long-term.

## **Disproportionately impacted communities**

Climate Solutions supports the proposed mitigation plan principles and its strong emphasis on communities that have historically borne a disproportionate share of the air pollution burden in Washington. A Cumulative Health Impacts Analysis found that high air-pollution in the form of particulate matter and benzene in Seattle's South Park, Georgetown and Beacon Hill neighborhoods contributed to life expectancy that was 13 years shorter than less polluted areas.<sup>2</sup> Air pollution has a very clear direct and disproportionate impact on communities, causing greater levels of respiratory disease, cardiovascular disease, and other illnesses. We believe that the state has a role in protecting our communities from harmful air pollution, and support the emphasis on communities in this plan.

To provide more clarity, we recommend that the final mitigation plan include additional guidance as to how projects in disproportionately impacted communities will be

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<sup>2</sup> Gould L, Cummings BJ. Duwamish Valley Cumulative Health Impacts Analysis. Seattle, WA: Just Health Action and Duwamish River Cleanup Coalition/Technical Advisory Group. 2013. [http://duwamishcleanup.org/wp-content/uploads/2013/03/CHIA\\_low\\_res.pdf](http://duwamishcleanup.org/wp-content/uploads/2013/03/CHIA_low_res.pdf)

prioritized. Relying on project that are considered practicable may not provide meaningful guidance on certain projects are to be prioritized over other projects. Ecology should consider more defined strategies or cost-effectiveness criteria, such as a specific carve-out for communities or allowing projects to exceed the cost-effectiveness test by an allotted amount.

## **Conclusion**

Climate Solutions greatly appreciates the opportunity to weigh in on Ecology's Proposed Volkswagen Beneficiary Mitigation Plan. We strongly support the focus on greenhouse gas reductions and public health benefits to disproportionately impacted communities, and believe the plan is generally aligned with the principles Ecology has developed. Thank you for your consideration of our comments, and we look forward to working with Ecology as it finalizes the mitigation plan.

Sincerely,

A handwritten signature in cursive script that reads "Kelly Hall".

Kelly Hall  
Washington Policy Manager

A handwritten signature in cursive script that reads "Vlad Gutman-Britten".

Vlad Gutman-Britten  
Washington Director