



August 25, 2020

Re: Support for Proposed Heavy-Duty Engine Amendments

Dear California Air Resources Board Members:

I am writing to you as Executive Director of Mojave Desert Land Trust (MDLT). Our mission is to protect the Mojave and Colorado Desert ecosystems and their natural, cultural, and scenic resource values. The effects of nitrous oxide emissions have impacted properties owned by our organization on two occasions within the past six months. As studies have shown, nitrous oxide emissions contribute to significant growth and expansion of non-native annual plants such as red brome, mustard and cheatgrass. These species often form a continuous fuel between shrubs and trees, which historically was not present, increasing the spread and intensity of wildfires, resulting in high mortality to desert shrubs and trees.

In May of this year, a wildfire consumed 155 acres of MDLT lands containing Joshua tree woodland. More recently, the Cima Dome fire in Mojave National Preserve burned a total of 289 acres of MDLT's properties within the Cima Dome Fire perimeter. The Cima Dome fire burned almost 44,000 acres, an area which contained the largest Joshua tree forest in existence.

Other desert areas have recently been impacted as well. The Apple Fire originating in Cherry Valley burned over 33,000 acres, and the more recent Sunfair fire in the Joshua Tree community burned 160 acres. These fires significantly affected the Joshua tree, Mojave yucca, silver cholla, and other important desert vegetation.

Also of concern is loss of habitat for the state and federally listed desert tortoise. Non-native plants often out compete native plants which the desert tortoise depends on for food, and as stated above, along with the effects of climate change, the presence on non-native plants increases the frequency and intensity of wildfire, destroying desert tortoise habitat.

The desert ecosystem is not well adapted to fire because large and intense fires were historically rare in the absence of non-native vegetation. Research from wildfires in Joshua tree woodlands demonstrates a tragic combination of extremely high mortality along with very low rates of regeneration. Invasive plant species, promoted by excessive nitrous oxide emissions (they serve as a fertilizer for non-native plants) often gain the upper hand, dominating the desert landscape. By addressing these harmful emissions, we are taking the first step in diminishing the source of more frequent wildfires – the rapid expansion of non-native vegetation.

For these reasons, we urge CARB members to support the Proposed Heavy-Duty Engine Amendment to begin the process of restoring atmospheric nitrous oxide emissions to less harmful levels.

Sincerely,

Geary Hund
Executive Director

MOJAVE DESERT LAND TRUST
P.O. Box 1544
60124 29 Palms Highway
Joshua Tree, California 92252
760.366.5440 • www.mdltr.org