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US House of Representatives Energy and Commerce Committee, Subcommittee on Environment

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Response and Recovery to Environmental Concerns from the 2017 Hurricane Season

Chair Shimkus, Chair Walden, Ranking Members Tonko and Pallone, and honorable Subcommittee Members, thank you for the opportunity to participate. Having just returned from Puerto Rico and the Virgin Islands, I have many observations and concerns, but today I will only focus on disaster debris.

I have more than three decades of waste management experience, including with disasters. I am employed by the State University of New York, College of Environmental Science and Forestry (ESF) in Syracuse, NY. As the immediate Past President of the National Recycling Coalition, I helped create a task force on sustainable disaster debris management immediately after Harvey. I've helped address environmental issues in the islands since 2009, and I am a member of the Board for Island Green, a US Virgin Islands nonprofit. I've been working with local people to devise a sustainable approach for the storm debris.

Some US government responders are appreciated; however, there is concern from some residents and other experts regarding the potential ecological and human health impacts of a debris management "method of choice" of the Army Corp of Engineers—Air Curtain Incineration. ACI is a past practice of FEMA and the Corp in these situations, and they have proposed it for the Virgin Islands, and possibly, Puerto Rico. This would add insult to injury, especially considering that much of the debris is clean vegetation.

There are better ways.

During Superstorm Sandy in New York City, the Corp planned to use ACIs continuously for four months, but they stopped after one month because they could not get them to function properly. Air quality was exceeded during days of high humidity. Humidity is routinely extremely high in the islands.

Local people and others are concerned that ACIs will emit pollutants that could cause pulmonary aggravation, particularly for individuals with asthma or cardiac diseases. Diesel and gasoline generators, and exposure to indoor mold, are already aggravating existing respiratory conditions.

If burning moves forward in any manner, appropriate agencies should be asked to address potential health issues, especially regarding existing conditions. The Agency for Toxic Substances and Disease Registry should be requested to do a review of the health impacts of

burning before it commences. EPA should be asked to establish air monitors downwind of the burners, and burning should not commence until monitors are established and EPA immediately shares results with the public.

Much of the topsoil has been lost through stormwater—the islands have hammered with rain since the hurricanes—so it is critical that the vegetative debris remain to help replenish the soil that the plants of the islands need. When considering options like burning, it is essential to incorporate “externality costs”—costs for which it’s hard to calculate an immediate number, like climate change, the impacts of depleted soils on the ecosystem, or the health effects of air pollution. These impacts can be reduced through other viable options, and this is one reason groups like the National Recycling Coalition have opposed ACIs.

FEMA and the Corp have said they will take the Governor’s lead. Many in the Virgin Islands have asked their Governor to oppose incineration. Experts from Puerto Rico, the Virgin Islands, and stateside have worked to develop a viable alternative including recovery of hardwood, and then mulching and composting. This all can be done safely and efficiently. Composting is a process that nature has perfected over millions of years. It has been successful in many locations at large scales, and with other disasters, like Superstorm Sandy. Puerto Rico officials are working toward a similar sustainable plan.

Providing a valid option to incineration can serve as a positive framework for other disaster impacted areas in the future, and it represents a new sustainable scheme for debris and waste on the islands going forward. This is a “once and done” opportunity to get a leg up on acquiring the infrastructure needed for management of the islands’ long-term organic waste, about 50% of the islands’ normal waste stream.

To help this sustainable option move forward, *assistance could come in the form of a waiver of the matching funds requirement for the next 18 months while the islands build toward this more resilient and future-focused infrastructure.* Right now, FEMA is requiring the debris management solution to be fully implemented in 180 days, and this is considered unrealistic for composting or burning.

The residents and visitors of Puerto Rico and the Virgin Islands deserve our focused attention, clean air, and a healthy ecosystem. The hurricanes were certainly not desired, but this is a great opportunity to build a more resilient and sustainable future, so that the islands can come back better than before.

Thank you, and on behalf of my institution, ESF, and the State University of New York system, we stand ready to assist the Subcommittee with its continuing effort on this important issue.