Testimony of Carol M Browner

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Thank you. I appreciate the opportunity to appear before you today to discuss climate pollution. I have spent the better part of my professional life working to reduce pollution – from the Florida Everglades to the soot and smog that plague our cities and cause asthma attacks in our children, to the dangers of toxics chemicals in our communities. Throughout, I have relied on science to understand the threats and I have worked with industry to find common sense cost effective solutions to these public health challenges, including agreements for cleaner more efficient cars, redeveloped brownfields and superfund sites, and investments in cleaner sources of energy.

Despite the good work of so many to address the real and vexing pollution problems that threaten all Americans, today we face the greatest pollution challenge ever and its impacts -- climate change.

Scientists have been warning for decades that climate change was going to have far, wide and expensive economic and health impacts on our communities, our country and our world. While we debated the problem here in the United States, two things happened: First, our international competitors like China outpaced us in innovation that is driving a clean energy economy globally. Second: climate change grew worse and the impacts on our lives grow more real.

Yes, we are already beginning to see the impacts of climate change. We are living with more powerful hurricanes, worsening drought, melting glaciers, devastating wildfires and rising sea levels around the world.

And it is not just environmental impacts – climate change is wreaking economic calamity too.

Natural disasters cost the world $155 billion last year. From 2011-2017 Extreme weather caused $675 billion in economic damages.

Forty percent of Americans live in coastal counties. Hurricanes are very expensive. As Senator Jack Reed of Rhode Island noted: Hurricane Michael and the destruction of Tyndall Air Force Base will cost the Air Force over $5 billion to rebuild. Damage from Hurricane Florence will cost the Marine Corps roughly $3.7

billion to rebuild Camp Lejeune. These superstorms may not have been caused by climate change, but the science proves they were made far more intense and more destructive due to the elements of climate change, such as warmer water temperatures.

Climate change is also having a measurable negative impact on the lifeblood of our planet – our oceans. Our oceans are in decline. Habitat destruction, biodiversity loss, overfishing, pollution, climate change are all interconnected and damaging our oceans.

Recently Science Journal reported a new study that found that 2018 was the warmest year on record for the global ocean. The US government's own National Climate Assessment demonstrates the major impacts that warming is having and will have on our oceans and marine fisheries.

Why should we care about oceans and climate change? Because failing to do so threatens every life on the planet. Oceans cover nearly three quarters of the Earth's surface. Oceans produce almost half of all oxygen we breathe and absorb more than a quarter of the carbon dioxide we emit. Again, oceans provide nearly 50% of the oxygen we need to breathe. That alone merits action. As we consider the threats to oceans we should also be mindful of the opportunity that oceans present to help address the climate challenge.

I had the opportunity to serve on the Global Ocean Commission – an international group of business and political leaders that worked to raise awareness and promote action to address the degradation of the ocean and help restore it to full health and productivity. As our final report noted: All life on earth, including our own survival, depends on healthy, vibrant oceans. Billions of us rely on it for food, transportation and energy, recreation and livelihoods.

The ocean is basically the kidney of our plant – keeping systems health and productive.

We must adopt "ocean smart policies".

The science shows that the oceans have the mechanisms and opportunity to heal – that through the regenerative role of the high seas – it is possible to restore whole ocean health. To do so will require a series of actions – some can begin here at home, others will require international cooperation. But all will benefit.

Specific actions called for by the Commission included the creation of a high seas regeneration zone – an area free from industrial fishing; tougher offshore oil and gas safety standards; keeping plastics out of the ocean and closing down illegal, unreported and unregulated fishing.

Science shows that marine reserves like those created through the Antiquities Act and the National Marine Sanctuaries protect vulnerable ecosystems, benefit sustainable fisheries, and provide important buffers. Marine reserves can build greater ecological resilience to climate by maintaining biodiversity and protecting populations for faster recovery after disturbances. Congress should maintain marine protected areas already designated and support efforts to identify additional areas for protection.

Coastal ecosystems – particularly marshes, mangroves and sea grasses – are important tools in the fight against climate change. They serve as carbon sinks and provide protection for coastal communities during severe weather events as well as provide food for coastal communities. Congress should support more funding for coastal and marine habitat restoration programs.

The Coastal Zone Management Act provides a number of avenues through which states and local communities can ensure that access to key coastal areas are protected in the face of rising seas.

Ocean and coastal monitoring programs provide essential information to coastal communities and ocean dependent businesses. Congress should support implementation of the Federal Ocean Acidification Research and Monitoring Act. Congress should also support monitoring of harmful algal blooms. And to ensure that this data and information can be used to develop actions Congress should continue to support programs such as the National Estuarine Research Reserves and the Sea Grant program.

When it comes to climate change we have more science that we have ever had on any environmental and economic crisis. It is time to focus on solutions. Waiting will only make the task that much harder. In my work I have known some of the best environmental engineers but there is not a one among them that can actually reverse sea level rise.

With a new Congress comes a new opportunity to lead and a new opportunity to act. The eyes of the world are on the United States. For the past two years, this country has abdicated is leadership in the global community, especially with regard to solving climate change, the most serious environmental and economic challenge of our time. The scientists are issuing the warnings. We are running out of time. You could be our greatest hope to reverse the curve of inaction and instead find the solutions that will determine our economic and environmental future. Now is the time for action that addresses climate change, quickens the inevitable transition to clean energy sources, and protects our oceans and environment for future generations who deserve to live in a safe and clean world.

Thank you.