

To the representatives of the state of Wisconsin,

On Monday October 8th, 2018, the Intergovernmental Panel on Climate Change (IPCC) released a special report detailing the immediacy of global climate change impacts across multiple sectors. Because we recognize that not all of the components of the report are applicable to our state, we synthesized and expanded on those parts which are relevant to us. This document is for your benefit and we will gladly expand on any portion if you are interested. Please consider these six areas of concern a limited and non-exhaustive sampling of the threats of climate change on Wisconsin. Our group of 40 young and enthusiastic students and scientists at Lawrence University have prepared this letter for you detailing six clear areas where climate change threatens the Wisconsin way of life.

Wisconsin Climate: Rainfall and Changing Temperatures

Governor Walker announced on August 17th that recent floods have caused \$208.7 million in damages in the state including \$98 Million to the homes of Wisconsin residents. The wetter summers, which are a result of our warming temperatures also affect the bodies of water around the Mid-West and Wisconsin. Developing and investing in new infrastructure that is able to handle the changing climate is a public health and safety issue and your constituents need your support. According to the EPA (Environmental Protection Agency), the average annual precipitation (snow + rainfall) in the Mid-West has increased by 5-10% in the last 20 years, and rainfall by as much as 35%. This is the result warming due to the release of greenhouse gases from major sources like coal burning and inefficient agricultural practices. Greenhouse gasses lead to warmer temperatures and these lead to more and more moisture in our atmosphere. With more moisture in the atmosphere, catastrophic rainfall events are going to be more likely in the immediate future; infrastructure that is able to handle new weather conditions is a must for Wisconsin.

Wisconsin's Water:

Wisconsin is geographically fortunate to be situated on two Great Lakes and with an abundance of freshwater inland. Often this is something we take for granted considering that water is a basic human need, along with shelter and food. According to the IPCC's report, it is possible to reduce the increase of water stress due to climate change by up to 50% if we are able to limit global warming to 1.5 degrees C instead of 2.0 degrees over the next 20-30 years. This has direct impacts on Wisconsin, which should support legislation that combats climate change, as increased flooding events and droughts can not only affect agriculture and livestock in a largely agricultural state, but they can also impact the quality and availability of drinking water for Wisconsin's citizens.

Wisconsin Agriculture:

The IPCC special report states with high confidence that climate change will result in a disproportionately large negative impacts to communities dependent on agriculture. According to the Wisconsin Department of Agriculture, Trade, and Consumer Protection, agriculture contributes \$88.3 billion dollars annually to the state's economy. Wisconsin is the leader production of feed corn, snap beans, cranberries, milk, and cheese, among other products. Agriculture comprises over a quarter of the state's gross domestic product. This industry is at risk due to climate change and this risk increases in a warmer world. In addition to reduced yields, the ability to grow certain crops such as corn will be reduced because of higher precipitation and temperatures, as well as a higher incidence of extreme weather events. Protect Wisconsin growers by supporting legislation that helps stabilize our climate.

Wisconsin's way of life:

Fishing and hunting are integral aspects of Wisconsin's culture as activities deeply embedded in the consciousness of the state. Hunting and fishing accounted for a \$2.5 billion industry in 2011 (according to the US Census Bureau) a number that has remained steady over time. Climate change poses a major threat to this industry as a decrease in biodiversity linked to ecosystem and habitat loss become a reality. To mitigate these major changes, a strong environmentally sustainable legislative plan should be part of the discussion. A possible

contribution to slowing climate change is to protect vast areas of Wisconsin wilderness as carbon sinks to remove greenhouse gasses from the atmosphere and lock them up in our soils. Strengthening the state Department of Natural Resources and working closely with federal agencies (e.g. EPA, USDA) to protect our natural resources must be a legislative priority.

Wisconsin's Green Economy & Renewable Energy:

Only about 25% of Wisconsin's energy comes from non-carbon-based sources and only about 10% is renewable energy. According to the IPCC's most recent report, we need to increase the amount of renewable energy Wisconsin uses to 75-80% by 2050. Wisconsin has great potential to expand into the solar energy and wind energy sectors. Actions as simple as providing tax and monetary incentives to Wisconsinites who install rooftop solar-panels or alternative ways of powering their homes, should be at the top of the legislative agenda. Let's reduce our dependency on coal for energy production. An action like this would boost local economies in rural communities, stimulate new technological developments and provide a green infrastructure for sustainable energy production and dispersal. Wisconsin can do its part by implementing its own carbon-reducing state policies and investing in clean energy technologies that can both reduce consumer energy costs and build new growth industries in the state.

Wisconsinite's Health:

The recent IPCC report states: "Any increase in global warming is projected to affect human health, with primarily negative consequences...Urban heat islands often amplify the impacts of heatwaves in cities. Risks from vector-borne diseases are projected to increase with warming from 1.5°C to 2°C". Due to climate warming, there has been a spike in heat-related deaths across the country, especially in elderly and marginalized groups. Wisconsin is an urban and rural state. In cities like Madison or Milwaukee, the population of homeless or elderly people don't have the monetary or physical capabilities to acclimate to the climate. We ask legislators to consider the increasing cost of healthcare due to heat related injuries as well as the likely increase in vector-borne disease. Wisconsin healthcare infrastructure should prepare to take in more climate-related incidents.

Regardless of your political affiliations Climate Change impacts us all. We've seen this recently in costly torrential downpours, and our economy stands to suffer as a regional climate grows unpredictable. However, there are solutions to these problems. Wisconsin is uniquely situated to be a leader in the new "Green Economy", while at the same time protecting our way of life and our citizens' health. We urge you to consider these consequences and solutions seriously as you vote to protect our state and ensure the wellbeing of your constituents.



Israel Del Toro

On behalf of Concerned Wisconsinites.

Dannielle Konz Rebecca Tibbetts

Dannielle Konz ~~Rebecca Tibbetts~~ Noah Shea Noah Shea

ALEX YAO (CHEN YU) David Baldwin ~~Bill Orr~~

William Wulfman ~~William Wulfman~~ Ashley Camling

Amy Lucas' staff

Brynn Schroeder
Brynn Schroeder Nick
Nicholas Pastore
Natalie Galster-Manz
Natalie Galster-Manz

Madeline Stevenson
Tyler Curtis-Dupuis

Madeline Stevenson
Tyler Curtis-Dupuis
Julianna Basile

Zhiru Wang

Nero Gallagher
Nero Gallagher

Liam Huyen
Liam Huyen

Brianna Wilson
Brianna Wilson

Anna Patch

Grace Foster
Grace Foster

Anna Patch

Emily Hill
Emily R Hill

Emmylou de Meij

Anna Pell

Emmylou de Meij

Oct 17 Anna Pell