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CLIMATE CHANGE

The major scientific agencies of the United States, including the National Aeronautics and Space Administration (NASA) and the National Oceanic and Atmospheric Administration (NOAA), agree that climate change is occurring and that humans are contributing to it. In 2010, the National Research Council concluded that "Climate change is occurring, is very likely caused by human activities, and poses significant risks for a broad range of human and natural systems" (see <https://www3.epa.gov/climatechange/basics/facts.html#ref1>). Many independent scientific organizations have released similar statements, both in the United States and abroad. This doesn't necessarily mean that every scientist sees eye to eye on each component of the climate change problem, but broad agreement exists that climate change is happening and is primarily caused by excess greenhouse gases from human activities.

Multiple temperature records from all over the world have all shown a warming trend, and these records have been deemed reliable by the National Aeronautics and Space Administration (NASA), and the National Oceanic and Atmospheric Administration (NOAA), among others (see <https://www3.epa.gov/climatechange/basics/facts.html#ref8>). Other observations that point to higher global temperature includes: warmer oceans, melting arctic sea ice and glaciers, sea level rise, increasing precipitation, and changing wind patterns (see <https://www3.epa.gov/climatechange/basics/facts.html#ref4>).

The vast majority of the Earth's water resources are salt water, with only 2.5% being fresh water. Approximately 70% of the fresh water available on the planet is frozen in the icecaps of Antarctica and Greenland leaving the remaining 30% (equal to only 0.7% of total water resources worldwide) available for consumption. From this remaining 0.7%, roughly 87% is allocated to agricultural purposes (IPCC 2007). The rate of evaporation varies a great deal, depending on temperature and relative humidity, which impacts the amount of water available to replenish groundwater supplies. The combination of shorter duration but more intense rainfall (meaning more runoff and less infiltration) combined with increased evapotranspiration (the sum of evaporation and plant transpiration from the earth's land surface to atmosphere) and increased irrigation is expected to lead to groundwater depletion (Konikow and Kendy 2005).

The impact of climate change, as currently predicted and understood by leading scientists and scientific bodies around the world in reports of the UN's Intergovernmental Panel on Climate Change, as well as in reports of the National Aeronautics and Space Administration and the National Academy of Sciences, will dramatically and negatively affect our natural resources.

Therefore, Be It resolved the Izaak Walton League recognizes climate change as a critical risk to the future sustainability of our soil, air, woods, waters and wildlife, which are so important to all Izaak Walton League members across the country. We recognize the urgent need to implement mitigative actions to reduce the risk of climate change to sustain our natural resources for the benefit of future generations.

1. <http://climatecommunication.yale.edu/publications/scientific-consensus-on-climate-change-as-a-gateway-belief/>. Yale Project on Climate Change Communication.
2. <http://www3.epa.gov/climatechange/basics/facts.html/>. Konikow, L.F., and Kendy, E., 2005, Groundwater depletion: A global problem: Hydrogeology Journal, v. 13, p. 317-320.

Author Barry Drazkowski

Submitted by Will Dilg Chapter, Bush Lake Chapter, Minnesota Valley Chapter