

Focus on

Climate Change



Understanding the Issue^{1,2}

The issue of climate change has prevailed as the most significant environmental challenge of this decade.

Since the Industrial Revolution in the mid- 1750's, human activities have substantially added to the amount of heat-trapping greenhouse gases in the atmosphere. The burning of fossil fuels and biomass (living matter such as vegetation) has also resulted in emissions of aerosols that absorb and emit heat, and reflect light.

The addition of greenhouse gases and aerosols has changed the composition of the atmosphere. The changes in the atmosphere have likely influenced temperature, precipitation, storms and sea level (IPCC, 2007). However, these features of the climate also vary naturally, so determining what fraction of climate changes are due to natural variability versus human activities is challenging.

Regardless of this fact, data clearly indicates that the Earth's climate is warming and studies indicate that if this pattern continues, we may face a ripple-effect of other environmental risks. Furthermore, recent Federal activities – including US Environmental Protection Agency's Endangerment Finding and Mandatory Greenhouse Gas Reporting Rule – will keep the country's attention on this important issue.

Climate Change & the Environmental Element

Omaha's Environmental Element is first and foremost a vision and strategy for defining environmental objectives and policies for the City. As such, it is imperative that climate change is included as a component of the plan.

However, the continuous journey towards sustainability is at the heart of the Environmental Element. This means that all objectives and strategies rest equally on three pillars to ensure long-term prosperity: economic, social, and environmental. These integrated values ensure that all objectives and strategies – including those regarding climate change – equally weigh long-term impacts to the economy, our local community, and the natural environment.

This concept has provided the foundation for the climate change objectives and strategies included in the Resource Conservation section of the Environmental Element. Though political contention inevitably follows the subject of climate change, we are confident that the prudent objectives and rational strategies will transcend the debate and emerge as a triple win providing long-term economic, environmental, and social benefit.

Achieving Reduction through Efficiency and Smart Public Policy

The climate change objectives in the Environmental Element focus on three activities: maintaining a comprehensive greenhouse gas inventory, reducing greenhouse gas emissions, and communicating results. The greenhouse gas inventory will provide a baseline from which the City can make informed decisions about pursuing emissions reduction strategies and track performance towards reduction goals.

The reduction strategies included throughout the Environmental Element –within the Resource Conservation section as well as in other sections – focus on improving efficiency and diversifying carbon-based energy sources. Efficiency improvements come through economical energy efficiency, improving transportation systems, and optimizing solid waste management and improving recycling. Diversifying carbon-based energy sources provide additional benefits, including reducing local air pollution, improving energy security by reducing dependence on foreign oil. All of these strategies provide economic development through job creation from industries related to energy efficiency and alternative energy.

Lastly, the Environmental Element includes strategies to identify risks and opportunities posed by climate change and position Omaha to not just adapt to that change, but become resilient and proactive in how we anticipate the effects of climate change.

¹ US Environmental Protection Agency, Climate Change [website](#)

² Intergovernmental Panel on Climate Change, 2007