Climate Change 101

What is Climate Change?

Climate change refers to **long-term shifts in temperature, weather patterns, and ecosystems caused by natural processes and human activity.** Carbon dioxide (CO_2), methane and other gases trap heat from the sun in the atmosphere, warming the planet. Human activities, such as burning fossil fuels, deforestation and industrial processes, have changed the Earth's climate.

What are the Impacts of Climate Change?

- **Rising Sea Levels:** Melting ice and thermal expansion are causing sea levels to rise, threatening coastal communities, increasing flooding and displacing millions globally.
- **Extreme Weather:** Climate change contributes to frequent and intense heatwaves, floods, droughts, wildfires and hurricanes.
- **Biodiversity Loss:** Changing climates alter habitats, causing species shifts, migration changes and extinctions.
- **Human Health and Safety:** Climate change threatens health, livelihoods, and safety through extreme weather, food and water scarcity, sea level rise and increased disease risks— disproportionately affecting those from overburdened communities.

What can we do?

- **Switch to renewable energy sources** such as solar, wind and hydropower to cut CO_2 emissions.
- **Improve efficiency** in buildings, transportation and industry to reduce energy use and GHG emissions.
- **Plant trees and preserve biodiversity** to increase carbon capture.
- **Reduce our personal carbon footprints.**
- **Educate others** by sharing information about climate change and sustainable practices with family, friends, and your community

Learn more about climate change at dep.nj.gov/climatechange/

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