

## **Sustainability Pillar: Climate Mitigation & Resiliency**

**Introduction:** Back in 1975 a Columbia University professor is credited with first using the term “Global Warming” in an article ironically entitled “Climatic Change: Are We on the Brink of a Pronounced Global Warming?” Since that time, a national and even international debate has raged over the term global warming. Former Vice President Al Gore’s campaign to raise awareness even resulted in an award winning 2006 documentary film by Davis Guggenheim called “An Inconvenient Truth.” Unfortunately, debate over terminology and data has distracted focus away from the clear need for better preparedness, adaptation and resiliency in the face of more frequent and severe weather events.

Over the past decade, the term “climate change” has grown in popularity to better connect to an indisputable fact – the world, our nation, our state and our region are experiencing more frequent extreme weather events. Greenable Woodbridge has adopted a format for communication with Township residents called “The 12 Pillars of Sustainability.” Our July Pillar is Climate Mitigation & Resiliency. Each week in July we will post topical summaries on the Climate question. These summaries will address:

- What is Climate Change and why do we care about it?
- What is the State of New Jersey doing to address climate change?
- What have we done in Woodbridge Township to combat climate change?
- What can each of us do to help the fight?

The narrative summaries will also be supplemented by companion You-Tube videos and links to additional reference materials for those interested in more detail.

### ***Week 2: What has the State of New Jersey done to address climate change?***

New Jersey is the most densely populated State in the country. As an older Northeastern coastal State with aging infrastructure, climate change is of heightened concern. In response to this concern, our Legislature passed the Global Warming Response Act on July 6, 2007. The Act calls for a reduction in greenhouse gas emissions back to those measured in 1990 by the year 2020. This would represent a 20% reduction in what 2020 emissions would be if we did nothing. Going forward, the Act calls for an 80% reduction in emissions below those measured in 2006 by the year 2050.

According to the Department of Environmental Protection (NJDEP) in its “New Jersey’s Global Warming Response Act Recommendations Report,” dated December 2009, greenhouse gas emissions can be divided between 4 primary sectors:

- Transportation, including the cars we drive, trucks, buses, rail, plane = 42% of GHG
- Generation of electricity (in-state and out-of-state sources) = 21% of GHG
- Residential/Commercial fuel use (exclusive of electricity) = 23% of GHG
- Industrial fuel use (exclusive of electricity) = 9% of GHG

The state’s greenhouse gas inventory (shown above) is divided into eight categories, each contributing to New Jersey’s overall greenhouse gas emissions. The three principal sources of greenhouse gas emissions in New Jersey are transportation, electricity consumption, and the residential, commercial, and industrial fuel use sectors.

Since its release, New Jersey has worked towards implementing a number of the recommendations outlined in the Recommendations Report. Some of the accomplishments include the following (please click on the highlighted links below for more information – SOURCE: NJDEP website of the Sustainability and Green Energy Program):

- As a participating state in the regional [Transportation and Climate Initiative \(TCI\)](#), NJ will benefit from the results of an approximately \$1 million Electric Vehicle Planning Grant from the U.S. Department of Energy
- NJ is a signatory state to the TCI [Agreement of the Northeast and Mid-Atlantic States to Develop a Northeast Electric Vehicle Network and Promote Alternative Transportation Fuels](#).
- NJ is a signatory state to the TCI [Agreement of the Northeast and Mid-Atlantic States to Support Sustainable Communities](#).
- NJ streamlined its permitting process for [residential plug-in electric vehicle chargers](#)
- NJ participates in a regional effort to evaluate the feasibility of implementing a [Clean Fuel Standard](#). An economic analysis has been released and stakeholder meetings have been held to gather more input.
- The New Jersey Department of Community Affairs (DCA) adopted [new building codes](#) that will increase the energy efficiency of buildings up to 14%
- DCA adopted [new construction codes](#) to address highly warming gases covering refrigerants in new and replacement equipment
- The [Hazardous Discharge Site Remediation Fund](#) was amended to allow payment of 75 percent of clean-up costs for municipal, county, or redevelopment agency projects where end use is renewable energy.

- In December 2011, the State revised its [Energy Master Plan](#), which is the strategic vision for the use, management, and development of energy in New Jersey over the next decade. Because fossil fuels like coal, oil and natural gas are the largest sources of greenhouse gases in the state, the Energy Master Plan will serve as the platform for discussions about how New Jersey can meet the Global Warming Response Act's 2050 greenhouse gas limit.
- **Supporting the NJ Clean Energy Program managed** by the NJ Board of Public Utilities, the [NJ Clean Energy Program](#) offers financial incentives, programs and services for New Jersey residents, business owners and local governments to help them save energy, money and the environment.
- The [NJ Economic Development Authority](#) awards grants to companies that manufacture products used for energy efficiency and renewable energy.
- The State has initiated discussions with the [New Jersey Clean Cities Coalition](#), utilities, government agencies, communities and the private sector to explore options for developing infrastructure such as electric vehicle charging stations and compressed natural gas fueling stations to accelerate introduction and use of alternatively-fueled vehicles in New Jersey.

Now that we have generally designed climate change and framed broader statewide mitigation, preparedness and adaptation strategies, we will focus next week on nearly five years of comprehensive focus on the Woodbridge Township “Sustainable Community Plan and Climate Action Plan.”

***To Learn More:*** If interested, please check out the following websites and You-Tube videos:

### **Websites and Literature:**

- “Sustainable Community Plan and Climate Action Plan – Woodbridge Township, New Jersey,” May 6, 2015 Revision  
<http://www.twp.woodbridge.nj.us/LinkClick.aspx?fileticket=9k99EGuWWb4%3d&tabid=751>
- Website of the New Jersey Department of Environmental Protection, Sustainability and Green Energy Program: <http://www.nj.gov/dep/sage/climate-energy.html>
- Website of the New Jersey Climate Adaptation Alliance: <http://njadapt.rutgers.edu>
- NJ Climate Brochure: <http://njadapt.rutgers.edu/nj-climate-brochure/file>
- “Resilience – Preparing New Jersey for Climate Change: Policy Considerations from the New Jersey Climate Adaptation Alliance”: <http://njadapt.rutgers.edu/docman-lister/resource-pdfs/120-resilience-preparing-new-jersey-for-climate-change-policy-considerations/file>
- New Jersey Global Warming Response Act: <http://www.nj.gov/dep/sage/docs/gw-responseact-07.pdf>

- “New Jersey’s Global Warming Response Act Recommendations Report” – December 2009: [http://www.nj.gov/dep/sage/docs/njgrwa\\_final\\_report\\_and\\_appendices\\_dec2009.pdf](http://www.nj.gov/dep/sage/docs/njgrwa_final_report_and_appendices_dec2009.pdf)

### **You-Tube Videos:**

- Climate Science: What You Need To Know (PBS Digital Studios)  
[https://www.youtube.com/watch?annotation\\_id=annotation\\_4055255825&feature=iv&src\\_vid=y2euBvdP28c&v=ffjIyms1BX4](https://www.youtube.com/watch?annotation_id=annotation_4055255825&feature=iv&src_vid=y2euBvdP28c&v=ffjIyms1BX4)
- Why People Don't Believe In Climate Science (PBS Digital Studios)  
<https://www.youtube.com/watch?v=y2euBvdP28c>
- Climate change just hit home (NBC documentary)  
<https://www.youtube.com/watch?v=M8EXhJmUkNE>
- Climate Change Is Happening Faster Than You Think (DNews)  
<https://www.youtube.com/watch?v=M8-9U-MF1Ko>
- Morgan Freeman's Powerful Climate Change Short Film (The Daily Conversation)  
<https://www.youtube.com/watch?v=8YQIaOldDU8>