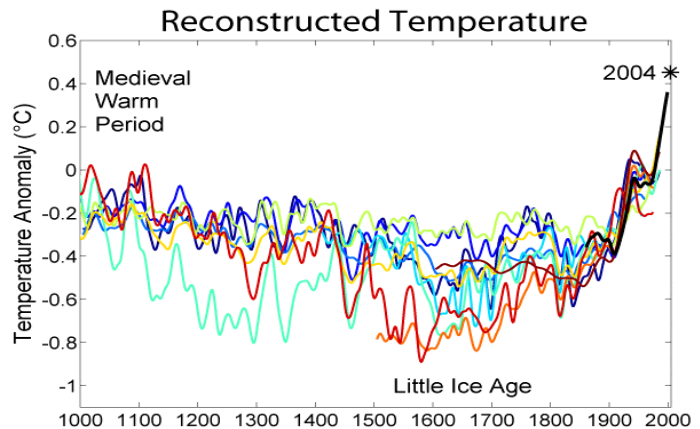


The Effects of Climate Change on Long Island



Climate Change is Affecting Us Now....

2006 was the warmest year on record for the United States. 2006 does not stand alone, according to National Oceanic and Atmospheric Administration (NOAA); the last nine years have been among the 25 warmest years on record. December 2006 was the warmest month in New York's history. Golf courses re-opened, cherry trees began to bloom, and skating rinks closed down because the ice melted. The science confirms that climate change is real and caused by human activities, particularly caused by the burning of fossil fuels.



Ten different methods of calculating global temperature all show a spike in temperature during the Industrial Age.

Scientists Agree....

On February 2, 2007, the Intergovernmental Panel on Climate Change (IPCC) released a long-awaited report assessing the contributions to climate change, as well as its projected impacts. Preliminary reports suggest that the panel of more than 2,500 scientists will have come to several significant conclusions, including:

- Near-100% certainty that the global warming experienced thus far was caused by pollution from fossil fuels – coal, oil and natural gas;
- Sea-level rise of up to 23 inches expected by 2100, and much more if ice in Greenland and Antarctica melt;
- Warming of more than 5° Fahrenheit, worldwide, by 2100; and
- Increased frequency of droughts and floods.

Climate Change & Fossil Fuels

The burning of oil and other fossil fuels releases carbon dioxide, which rises, blankets the earth and traps heat.

Climate Scientists report that there has not been this much carbon dioxide in the atmosphere in the past 650,000 years

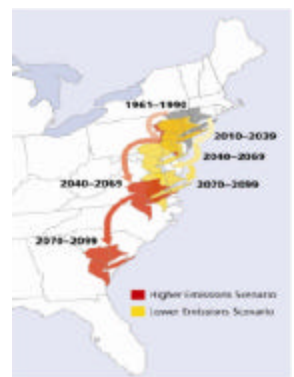
Northeast Effects...

In the Northeast the effects of climate change can already be seen. Annual temperatures have risen more than 1.5 degrees since 1970, there has been a reduction of snow cover, an earlier snow melt, an earlier arrival of spring, an extension of the summer season, and an increased risk of extreme heat. Climate scientists predict that changes will continue in the future. The extremity of changes will depend on the actions that we take today to



Changing Temperatures...

It is predicated that an average summer in the NYC tri-state region could resemble those of South Carolina today if we do nothing to curb our greenhouse gas emissions. Along with the temperature increase the NYC tri-state area can anticipate heat waves, with 20 to 30 days of temperatures soaring above 100 degrees. This is a significant increase from the current average of only 1 to 2 days of extreme heat reaching 100 degrees.



Under the higher Emissions Scenario, or the "do nothing Scenario", LI's climate will resemble the current climate of South Carolina

Sea Level Rise...

According to the EPA, It is estimated that sea level has already risen 10 inches in New York in the last century. Continued sea level rise and increased coastal storms can mean extensive damage to our barrier beaches and coastlines. The direct impacts of sea level rise include beach erosion, complete loss of beaches, increased flooding, loss of ecologically important wetlands, and saltwater contamination of drinking water. Rates of beach erosion could double at sites within the region by the 2020's and could increase 4 to 10 times by the 2080's. Additional sand would have to be placed on the beaches to compensate for these losses.

We also know a minor 1-2 degree temperature change in our waters can drastically alter the species and make-up in our bays and estuaries, hurting lobster populations and encouraging invasive species, such as the sea squirt.



Sea Squirts shown here covering pebbles and a razor-clam shell.

Coastal Flooding...

Coastal flooding from increased intense storms could temporarily or permanently result in property damage and loss. It is predicated that the flooding could inundate many low-lying neighborhoods and shut down the entire metropolitan transportation system with much greater frequency. This negatively impacts our economy, with many insurers refusing to insure homes or restricting their coverage based on closeness to the water.

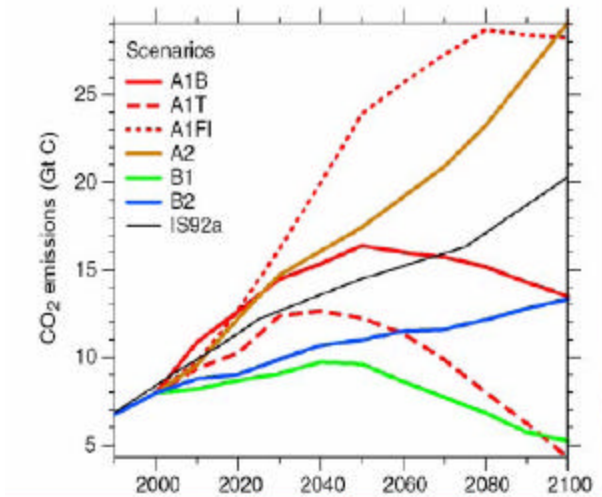
"In many cases, the impacts of sea level rise could be mitigated by forward looking state or local land use policies"—Pew Center on Global Climate Change 2000

We Have a Choice....

We have a choice: We can do nothing and follow the path to devastation or we can start today in changing our energy use and our energy policy, which will mitigate some predicated impacts.

Local and regional choices can curb the devastating effects of global climate change.

The choices we make today about energy, transportation, development and other areas will have dramatic implications for the climate our children and grandchildren inherit.



Possible Emissions Scenario's
The Red dotted line represents a do nothing scenario and the green line represents aggressive sustainable measures to

Solutions...

The Long Island Offshore Wind Initiative, Re-powering old power plants, and increasing energy efficiency programs needs to be part of the solution. There are also things that you can do in your home:

- ???? Use Compact Florescent Light bulbs (CFL), each bulb will reduce CO₂ by 100 lbs per year!
- ???? Keep your thermostat at 65-68 during the day and 55-58 at night. This will reduce CO₂ by 1400 lbs a year for each home!
- ???? Make sure you thoroughly seal all air leaks around doors, windows, and electrical outlets. This will reduce CO₂ by 800 lbs a year for each home!
- ???? Buy wind or solar energy for your homes, this will reduce CO₂ by 18, 624 lbs per year (based on an average energy use of 9, 312 kwh)
- ???? Encourage your elected leaders to take local steps like supporting alternative energies and energy efficiency programs





WindWorks Long Island

WindWorks for Long Island is a grassroots partnership of 30 local, state, and national environmental, civic, health, and other stakeholder groups. We are working to bring the economic, public health and environmental benefits of clean, renewable wind energy to our region. We believe that with necessary due diligence and rigorous regulatory, environmental and public review processes, the proposed Long Island Offshore Wind Park can serve as a national model in offshore wind energy production. It would set the stage for a new era of clean, sustainable energy generation that will protect our health, environment and quality of life on Long Island.

www.WindWorks4LI.org

America the Beautiful of Nassau County, Citizens Campaign for the Environment, Clean Energy Partnership, Earth Echo International, EarthSave LI, Earth Policy Institute, Environmental Advocates of NY, Friends of the Bay, Grassroots Environmental Education, Greenpeace, Healthy Planet, H.O.P.E of Hofstra University, Homecoming, Huntington Breast Cancer Action Coalition, Long Island Citizens Action Network, Long Island Mid-Suffolk Business Association, Long Island Neighborhood Network, Natural Resources Defense Council, New York League of Conservation Voters, New York Public Interest Research Group, Pace Law School Energy Project, P.E.A.C.E. of Long Island University, Prevention is the Cure, Renewable Energy Long Island, Renew Community Earth, Residents for a More Beautiful Port Washington, Riverkeeper, Sustainable Energy Alliance of LI, The Hydrogen Institute Center at SUNY Farmingdale & Union of Concerned Scientists

“We are playing Russian roulette with features of the planet's atmosphere that will profoundly impact generations to come. How long are we willing to gamble?” David Suzuki

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