

**Preserving Our Past** by Protecting Our Future

# A hotter July for almost every human on **Earth**



Feeling the summer heat more than usual? You're not alone. According to a recent <u>AP article</u>, July was hotter for **four out of five people on Earth**, with more than 2 billion people feeling climate change-boosted warmth daily, according to a flash study.

In the U.S., the southern states felt this heat increase especially, but Massachusetts was not immune. Residents of Western MA experienced 25 days in July where the daily high reached outside the "normal" range of temperatures, according to data from the National Weather Service.

After looking at 4,700 cities, researchers found, "... the burning of coal, oil and natural gas had made it three times more likely to be hotter on at least one day in those cities."

Homeowners switching from an oil or gas system to a heat pump can save 7 tons and 4.7 tons of heat-causing carbon emissions respectively, which is a major cause of global warming. Though this can be an expensive change, many incentives and rebates are available. Sustainable Marblehead is here to help homeowners through this process. For a great article on Heat Pump basics, visit here or our web site, including a recent informative webinar on heat pumps. Questions? Email greenhomes@sustainablemarblehead.org.

Learn More About Home Energy Efficiency

## Marblehead, Stop Peaking!



Each year, the single hour in which the electric grid experiences its highest - or peak – demand typically occurs on a hot weekday in the summer, between 4 and 8 p.m. A handful of other days each year will also have demand that comes close to the annual peak.

The whole community benefits with lower rates and lower polluting emissions when we manage our energy demand and reduce usage during peak times. **Read our** latest <u>Blog</u> post to learn what is meant by "shaving the peak" and what we all can do to help.

### **Junior Race Week Plastics Presentation**





My name is Fehr Gillett, and I interned with Sustainable Marblehead this summer. I have been assigned many meaningful projects to complete. Most recently, I gave a presentation on plastic pollution in the ocean at Pleon Sailing Camp during Junior Race Week. I was met by many young kids who were eager to learn about plastic pollution, why it's harmful to humans and animals, and what they can do to help. They heard many interesting statistics, such as how 700 species of marine animals are threatened by plastic pollution, 52% of sea turtles eat plastic, mistaking it for food, and around 20% of fish are found to have plastic in their stomach. The statistic that shocked the kids the most was how many pieces of plastic are currently in the ocean. Most thought millions, some thought billions, but none of them were expecting the hear that there are five trillion pieces of plastic in the ocean!

I explained to the kids how plastic pollution greatly threatens the survival of hundreds of marine animals and how this is also dangerous for humans because we are ingesting plastic toxins from these animals that have mistaken plastic for their food. The kids truly showed that they have the power to make a change in their future by helping me create a list of ways to prevent plastic pollution in the ocean, including stopping the use of single-use plastics, recycling more plastic, participating in beach cleanups, not littering, and using reusable water bottles and snack containers.

My presentation concluded with an activity where the campers sorted the top 10 items collected during coastal cleanups. They enjoyed debating and using their knowledge of plastics to sort the items from most found to least found. I then revealed that cigarette butts are most found, followed by food wrappers, plastic beverage bottles, plastic bottle caps, plastic grocery bags, other plastic bags, straws/stirrers, plastic take-out/away containers, plastic lids, and finally, foam takeout/away containers. I'm thankful to have passed along the important knowledge about plastics to this enthusiastic group.

Thank you, Fehr, for your hard work and dedication all summer!

## **New Building Code Encourages Home Electrification**



This summer's extreme weather has highlighted the urgency of reducing the greenhouse gas emissions that cause climate change. In Marblehead, our largest source of emissions is residential buildings, which are responsible for about 45 percent of the total. (For Massachusetts as a whole, buildings account for 30 percent of emissions.)

To tackle this important emissions source, last December, the Massachusetts Department of Energy Resources finalized a new building code. Massachusetts cities and towns now have three related choices of building energy code stringency: the "Base Code," still used by 51 locations; the "Stretch Code," adopted by 282 out of 351 Massachusetts cities and towns (including Marblehead in 2018); and the most recent "Specialized Code."

The specialized code discourages the use of fossil fuels in new buildings by requiring stringent energy efficiency measures and add-ons like solar panels in buildings that plan to install gas line connections. The code requires developers building with gas or oil to install additional electrical wiring, so the building can go fully electric in the future, and to make parking lots ready for EV chargers.

So far, 18 Massachusetts municipalities have adopted the specialized code via Town Meeting or Town Council approval. Four - Brookline, Cambridge, Somerville and Watertown - started using the new code on July 1, 2023.

Green building advocates say the state's ability to slash building emissions deeply enough to meet climate targets depends on the mass adoption of the new code. But some worry that too many of the more than 300 municipalities that have yet to make a decision could opt out.

Beyond the climate benefits, all-electric, efficient homes are cheaper to build, have lower monthly utility bills, and do not emit dangerous pollutants hazardous to health, according to Lisa Cunningham, an architect and co-founder of ZeroCarbonMA. Burning fossil fuels in buildings is a major source of outdoor air pollution. But gas appliances also emit

dangerous levels of pollutants inside our homes, says Cunningham, which exacerbate respiratory and other illnesses.

Some lucky Boston-area homeowners are already benefiting from the health and economic benefits of all-electric homes. Three houses in West Roxbury designed by Boston-based RODE Architects and recently built by developer Dmitry Baskin of Passive House Construction (photo above) are certified "passive houses," meaning they meet the standards set by the Passive House Institute in Darmstadt, Germany. They use airtight construction, tripleglazed windows, a foundation made from twelveinch concrete slabs set on eight-inch foam blocks, and strategic shading to increase efficiency. The houses are heated and cooled by small mini-split air-source heat pumps, and they use an energy recovery ventilation system to circulate the air to maintain a clean and fresh indoor air environment.

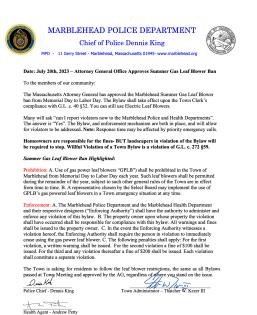
Owners say the HEPA-filtered indoor air has reduced seasonal allergies, and the tight construction also eliminates street noise from the nearby busy avenue.

Another passive house development, the largest in the US, is underway in Newton. The project on 22 acres, known as Northland Newton Development, will be a 13-building, all-electric housing project, using construction methods to maximize energy efficiency to the point where tenants pay no heating or cooling bills.

In Marblehead, our newly adopted Net Zero <u>Roadmap</u> lays out a series of recommended actions to reduce home emissions. Sustainable Marblehead is working with the town to educate residents about home energy efficiency options. In July, we held a virtual roundtable discussion on heat pumps. Our website also has extensive information from our recent Green Homes Tour, as well as a series of blog posts that show homeowners the stairway to Net Zero housing. Those interested in learning more are invited to join the Green Homes and Buildings working group.

Improving home energy efficiency and moving to electric appliances and heating/cooling will improve the health of the planet – and our health, too.

--By Louise Bullis Yarmoff, Sustainable Marblehead **Board Member** --Photo by Bob O'Connor for The Wall Street Journal





### **Attorney General Office Approves Summer Gas Leaf Blower Ban**

On July 20, the Marblehead Police Department issued a notice that the Massachusetts Attorney General approved the Marblehead Summer Gas Leaf Blower ban from Memorial Day to Labor Day. Electric leaf blowers may still be used. It is the home owner's responsibility to ensure that gas powered leaf blowers are not used on their property during the months of the ban, or they risk being fined. To read the full announcement, visit this link.

**Green Boater Results Through July 31** This friendly competition is between clubs, but the pledge and program are open to the whole community - one does not need to belong to a yacht club or even own a boat to take the pledge - and it's free for everyone!

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Sign up to receive Sailors for the Sea's digital Green Boating Guide that answers questions like which nontoxic cleaning products actually work, how to anchor properly without damaging marine habitat

and what you need for spillproof fueling. Help protect our oceans for future generations. Sign up today!

## **Upcoming Event**

Land & Sea Clean Up Saturday, Sept. 23 10 a.m. Join Sustainable Marblehead and our friends at SPUR to clean our area parks and beaches. Sign up today!

Farmer's Market Booth with Green Homes & Buildings Saturday, Sept. 23 9 a.m. - 12 noon



#### Did You Know?

One tree produces nearly 260 pounds of oxygen each year. One acre of trees removes up to 2.6 tons of carbon dioxide each year. Shade trees can make buildings up to 20 degrees cooler in the summer.

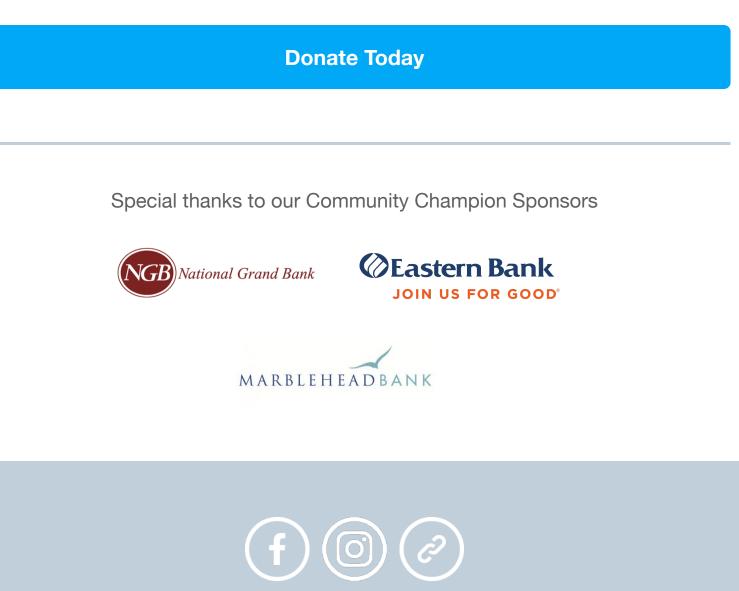


## What Can You Do?

To learn more about trees, look for an article in next week's Marblehead Current by our Town Trees & Urban Forestry Working Group Leader, Pal Bickford. If you'd like to contribute to Marblehead's Tree Fund to fund tree replacements, please contact the Tree Department at 781-631-2721. Come join Sustainable Marblehead again next April for more planting. The Recreation and Parks Department also has an excellent donation website for developing landscaped native plantings in our parks. Visit https://www.mhdlandscape.org/ for more information.

### Support

Sustainable Marblehead is a community organization working educate and engage the Marblehead community to reduce waste and achieve net-zero carbon emissions by 2040. Our work is important, and we can't do it alone. Please join us by donating today.



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