



MARIN

Green Ideas

MEET THE
CLIMATE
WARRIORS

**SUMMER
CAMPS GUIDE**

165 Ideas for
Fun and Adventure



MARCH 2020



Green Dream

We all want to do all we can to help the environment, but can we do more?

“We then we picked up Tamra Peters, founder of Resilient Neighborhoods, along with Elon Musk, Leo DiCaprio and, of course, Brad.”

GRETA THUNBERG, COME to Marin! I know you're busy, but I think you'll be pleased to find a county full of people who are and have been fighting the environmental good fight for decades. We could also use your international spotlight and basically, I just think you're awesome.

OK, back to you, the readers. Do you ever have one of those dreams like the one where Brad Pitt is your best friend — no biggie — and finally tells you that he has been in love with you since third grade? I had a Greta dream the other day that was almost as good.

She was going to come to town to tour the Marin Carbon Project and speak at Futurewell 2020, and I was asked to be her tour guide (this made sense in the dream). Suddenly the personal contact info for several carbon-sequestering heroes was in my files. I texted Sir Paul Hawken (my pet name for him) to see if he wanted to ride along in my electric VW bus, a prototype on loan from Sonnen. The day of the event, I looked like a model stepping out of a Sundance catalogue, shrugging off Paul's compliment when I picked him up. “Upcycled Rachel Comey I found at Revente in Greenbrae,” I said, smiling. We then picked up Tamra Peters, founder of Resilient Neighborhoods, along with Elon Musk, Leo DiCaprio and, of course, Brad.

As I type the details of this dream I am eating a salad I just purchased at Mollie Stone's which is packaged in a certified plant fiber container that will turn into soil within 90 days — win! However, energy and resources were consumed to create it, and the lettuce, pepitas, artichoke hearts and kung pao chicken (from the hot bar) came from around the planet. My lunch symbolizes the give-and-take of my daily internal battle as I strive to be part of the solution.

Encouraged by a friend, I recently joined the 97th class of Tamra Peters' Resilient Neighborhoods program in Sausalito. We named our class SOS: Sausolutions of Sustainability and

are learning how a few small tweaks to our daily habits can help bring big changes for the environment. Peters has been leading these meetings for years, in libraries, schools and homes throughout Marin. The result has been elimination of an estimated 8 million pounds of carbon. For this and other eco initiatives, she is being inducted into the Marin Hall of Fame this month at the YWCA in San Rafael.

People like Tamra Peters, Paul Hawken and Dana Armanino and her crew on the county Sustainability Team are having a positive impact not only in Marin, but on the whole planet.

According to a recent county report on community greenhouse gas emissions (GHG), we've been doing great. In 2015, the county set a goal to reduce GHG to 30 percent below 1990 levels by the end of 2020, and we are very close: as this magazine goes to press reduction is at 24 percent. The biggest areas of improvement have come from Marin Clean Energy (MCE) and PG&E's renewable energy offerings — and signing up for MCE is something all of us can do in less than five minutes.

Peters and the rest of the environmental crew make it look easy, yet personally I find the work hard to integrate into my life. I get confused about what exactly most affects climate change — is it fuel emissions, renewable energy, composting, choosing green building materials? Is it picking up trash on the beach, choosing paper over plastic, bringing my own cup to Starbucks? I've heard whispers of scientists researching a plastic-eating bacteria and high school kids coming up with great solutions. Fantastic, can I now relax and take a nap on my natural foam mattress?

For this month's issue, Anne-Christine Strugnell has written an easy-to-read status report on planet-saving efforts in our county and simple, impactful steps all of us can take. Did we miss one of your local heroes? Let us know.

Mimi Towle, Editor

Green Ideas

Marin has some of the world's strongest climate warriors, but we're also among the worst offenders. Here's how we can tip the balance in the planet's favor.

DURING THE PAST YEAR, PEOPLE ALL OVER THE WORLD have been hearing a young Swede, Greta Thunberg, issue dire warnings on climate change. "Our house is on fire," she says, and though she mostly means that figuratively, here in Marin we're taking it literally. We all know people who've lost their houses as unprecedented drought and heat continue to drive firestorms like we've never seen before.

Scientists tell us this is just the beginning. As levels of carbon in the atmosphere increase and the growing climate crisis threatens to drastically change our lives, some in Marin are setting an example for the rest of the world, with innovative ideas and programs that can drive down emissions — and even soak them up.

Before we get too excited about our leadership, though, we need to admit that our affluent Marin lifestyle contributes disproportionately to the problem. While the average person in France is responsible for 4.3 metric tons of CO₂ emissions per year, the average Marinite is responsible for almost five times as much: 20 metric tons. We are among the world's worst carbon polluters.

The good news is that once we accept that we as individuals are responsible for our outsize carbon footprint, we can make some significant changes.

Ready? Here's a brief recap of what we in Marin can feel good about — and how we can do better. ----->

BY ANNE-CHRISTINE STRUGNELL

MARIN CLEAN ENERGY (MCE)

One particularly powerful example of Marin's environmental leadership is MCE. Formed as Marin Clean Energy in May 2010, MCE is California's first community choice aggregator (CCA), giving Marin residents and businesses a choice in how the energy to their homes is provided. Today MCE serves more than 100,000 customers throughout Marin, three other counties, and 14 towns and cities. Its success has inspired formation of 19 other CCAs representing more than 150 communities across California.

Since MCE started service in 2010, customers have reduced over 340,000 metric tons of greenhouse gas emissions, or the equivalent of preserving 2,300 acres of U.S. forests in one year. MCE has been the single most important factor in enabling Marin to meet its 2020 carbon emission reduction targets four years ahead of schedule.

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As a Marin resident, you probably get your electricity from MCE, even though your bill comes from Pacific Gas and Electric (PG&E), which is the transmission agency for MCE. Marin residents are automatically enrolled in MCE Light Green, which supplies electricity that mostly comes from renewable resources — 60 percent renewable. However, customers can “opt up” to MCE Deep Green, which comes entirely from renewable resources. The price difference is minimal — for a typical household, an extra \$5 a month. Go for Deep Green and you can eliminate the carbon footprint of your electricity use. All your electricity will be coming from wind turbines or solar panels — without your having to invest in solar panels of your own.

LET'S DO THIS Go to mcecleanenergy.org/opt-up and enroll in Deep Green. Seriously. You can just put down the magazine, track down your utility customer number from a recent PG&E bill or the website, then go to the MCE website

and enroll in Deep Green — and you can be back here in five minutes to learn more, while basking in the glow of having done something significant and positive about your own carbon footprint.

DRAWDOWN: MARIN

In 2017 Sausalito resident Paul Hawken — who also founded Smith & Hawken and Erewhon — started an organization, Project Drawdown, with the mission of researching and promoting a path to drawdown, the point at which the concentration of greenhouse gases begins to decline. He compiled a top 100 list of potential ways to do this, 80 of

WHY DO CARBON EMISSIONS MATTER?

Carbon dioxide (CO₂) is a gas form of carbon that traps heat in our atmosphere. Millions of years ago, levels of CO₂ in the atmosphere were much higher, but slowly decreased as plants drew carbon out of the air and locked it away over time by forming coal, gas, oil and peat. But during the industrial revolution, when we began burning coal and petroleum products and destroying forests, we started releasing that stored carbon, and the level of CO₂ in the atmosphere has risen from less than 300 ppm (parts per million) before industrialization to 407 ppm today. It's projected to reach 450 ppm by the year 2040.

The last time carbon dioxide levels were as high as they are today was in the Pliocene era, about 3 to 5 million years ago. There were no humans on earth then. The sea level was about five to 40 meters (16 to 131 feet) higher, and temperatures worldwide were much hotter than they are today.

In other words, we evolved to thrive on a planet dramatically different than the one we are creating now.

them currently in practice, into a bestselling book to promote his findings and inspire and inform governments, other organizations and individuals worldwide.

Here in Marin, we have a local partner with this global organization. Drawdown: Marin is a community-driven campaign encouraging neighborhoods to pitch in to dramatically reduce greenhouse gas emissions and prepare for climate change impacts. Drawdown has already done the heavy lifting by citing solutions you can implement now in six focus areas: renewable energy, transportation, buildings and infrastructure, carbon sequestration, local food and food waste, and climate-resilient communities.

LET'S DO THIS Go to the “Drawdown Marin” tab on the county's website to learn about actions you can take in your home, your neighborhood and your larger Marin community.

The Pachamama Alliance offers a 90-minute online course in all 80 Drawdown solutions on its site. Go to the Project Drawdown site or read Hawken's *Drawdown* book to learn even more.

RESILIENT NEIGHBORHOODS

Ten years ago longtime Marin resident and environmentalist Tamra Peters founded a nonprofit, Resilient Neighborhoods, to help Marin households lessen their carbon footprint and prepare for emergencies. Nearly 1,000 people have reduced more than 8 million pounds of CO₂ pollution every year through Resilient Neighborhoods, making it one of the most effective programs on record for driving climate-friendly behavior changes.

When households join a Resilient Neighborhoods team, they begin by running some simple calculations on a spreadsheet to measure their carbon footprint. They then attend a free five-session workshop and learn how taking simple actions like trimming energy and waste, conserving water and making smarter transportation choices can cut carbon emissions and save money. One of the classes also focuses on building neighborhood resilience against the effects of climate change, with steps like emergency planning for wildfires. At the end of the workshop series, households measure the impact of changes they made during the program.



MALT soil testing

LET'S DO THIS Go to resilientneighborhoods.org to sign up for a climate team. If none of the sign-up times/dates work for you, you can create a profile via the online Marin Climate Challenge — which also begins with a measurement of your carbon footprint — at marin.goco2free.org, or check out the 90-minute online course from the Pachamama Alliance, based on Drawdown.

MARIN CARBON PROJECT

While consumption of red meat has a considerable carbon footprint, the beef and dairy cattle operations that are part of Marin's agricultural heritage can be an important tool in reversing climate change.

The Marin Carbon Project, a free-flowing collaboration of agencies, nonprofits and individuals, under the purview of the Marin Agricultural Land Trust (MALT) has proven that grazing lands can be used to pull carbon from the atmosphere. The project began when John Wick, the co-owner of the Nicasio Native Grass Ranch and co-founder of the Marin Carbon Project in 2008, decided to run an experiment by adding a half-inch of compost to his grazed rangeland. The microbes in the compost worked to effectively pull carbon out of the atmosphere, capturing carbon and sequestering it in the soil.

"As approximately 40 percent of the earth's land mass is rangeland and livestock grazing is the single largest land use on the planet, we thought 'holy cow, we have something here,'" says Jamison Watts, executive director of MALT. These and other changes to farming practices can also result in more nutritious

grass for more of the year and make farms more climate resilient.

LET'S DO THIS Choose meat and other proteins sourced from local producers who use organic and regenerative farming methods. Opt for locally grown, in-season foods and foods not packaged in plastic. For information about local producers got to malt.org/buy-local and marincarbonproject.org.

ZERO WASTE HOME

Mill Valley mom Bea Johnson has been living a zero-waste lifestyle right here in Marin for more than a decade. She burst onto the national scene with an article about her and her family in *Sunset* magazine in 2010, and since then she has inspired millions to live simply and take a stand against needless waste through her book *Zero Waste Home* (now available in more than 25 languages), talks, TV appearances, publications and blog posts.

"We not only feel happier, but we also lead more meaningful lives based on experiences instead of stuff," Johnson says. Her family of four generates a mere quart of waste per year through application of "the 5 Rs": refuse, reduce, reuse, recycle and rot. The Green Awards grand prize winner of 2011, she was dubbed "Priestess of Waste-Free Living" by *The New York Times* and is convincing a growing number of people that waste-free living can be stylish, bring significant health benefits and save time and money.

LET'S DO THIS Find tips and inspiration for taking action at zerowastehome.com. **M**



THE PLASTIC PROBLEM

Plastic accelerates the climate crisis both by adding CO₂ to the atmosphere and by reducing the planet's ability to absorb CO₂ emissions. In 2019 alone, the production and incineration of plastic will add more than 850 million metric tons of greenhouse gases to the atmosphere — equal to the pollution from 189 new 500-megawatt coal-fired power plants.

Greenhouse gases are emitted at each stage of the plastic life cycle: fossil fuel extraction and transport, plastic refining and manufacture, and managing the waste once we've thrown the packaging away.

Most plastic is not recycled, and even recycling is problematic. So-called "compostable plastic" is not composted in Marin waste handling facilities. Instead, plastics are incinerated or left to decompose into potentially toxic microplastics, which work their way into the food we eat and the water we drink. And because microplastic contaminates plankton, it may interfere with the way plankton locks away carbon in the deep ocean, the planet's most important drawdown process.