Bimonthly Newsletter of the Tennessee Chapter of the Sierra Club

Volume 57, Number 4—July / August 2024

Speaking Truth

Tennes Sierran

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TVA

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> > er (Ken Lane), is licen ed under CC BY-NC-SA 2.0 I photo: Roan Mountain, by @CarShowShooter (Ken Lane), is licensed under CC BT-NC-SA 2.0 otos: Jamie Satterfield at a Bull Run Neighbors meeting in 2019, by Todd Waterman; Bill McKibben comments at the May 8 TVA stening in Nashville, courtesy of Sarah Terpstra; McKibben (center) Joins happy activists after the Listening, by Todd Waterman ints at the May 8 TVA

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Explore, Enjoy, and Protect

From Tennessee Chair Cris Corley Early Morning Thoughts: Just Another Monterey Monday



Have you ever had a song stuck in your head? Many people refer to them as ear worms or brain worms, the spontaneous mental recall and repetition of a piece of music. The medical diagnosis, involuntary musical imagery (INMI), aka "stuck song syndrome," is actually common and widespread, experienced by up to 90% of individuals. Apparently, this phenomenon is associated with increased activity in the frontal lobe of the brain, the area responsible for planning and decision making. Hearing music increases your dopamine levels, the so-called pleasure and motivation neurotransmitter. Over the course of the past few days, it appears my brain has been in need of a little boost of dopamine — I have had an acute case of ear worms!

You may remember the Bangles 1986 hit single "Manic Monday," written by the musical genius Prince. That song — apparently my ear worm of choice — has been playing off and on in my cerebral cortex for decades: "I wish it was Sunday, 'Cause that's my fun day; My I don't have to run day, Just another Manic Monday." But just last week, for some odd reason, my brain decided to rewrite the lyrics to: "Just another *Monterey* Monday."

My life has been hectic over the last several weeks. The Sierra Club is currently facing a budgetary shortfall due to a decrease in donations from members and wealthy donors. Almost eight years ago, large amounts of money began to flow into our coffers. Environmental organizations referred to this phenomenon as the "Trump Bump." With this large influx of cash, the Sierra Club, along with a lot of the other organizations, began hiring additional staff and increasing wages, benefits, and, of course, expenses. With the election of our current pro-environment president, our funds began to diminish. Executive Director Ben Jealous and the national board were faced with a long-delayed reality of past administrations: Balance the budget or else! I am sure many of you are unaware that we have been operating in the red since BB (before Ben).

Back to "Monterey Monday" — I received a late-night phone call almost two weeks ago. Jealous asked if since I was the newly elected Southeastern Region Chair Representative and current Council of Club Leaders (CCL) delegate, I had any interest in being involved in budgetary conversations (especially related to Tennessee) occurring on the West Coast, beginning early the next day. I never back down from an extreme challenge. I cranked up the espresso machine, threw a couple of pairs of socks and underwear in my backpack, and headed to Nashville for an early morning non-stop flight to San Francisco. With a very brief layover of 15 minutes, I barely made the connector to Big Sur. After a brief taxi ride, I walked into a near-silent dining hall full of Sierra Club board members, executive and support staff, the CCL, and the chapter chair representative.

I could tell that no doubt my cast of friends from across the country had already had a tough morning of discussions. My early morning whirlwind cross-country flight with the accompanying severe turbulence while crossing the Rockies was rough, but my colleagues looked even more haggard from their hard morning of briefings. I had a chance to check into my room and freshen up while they returned for deliberation and debate. Later in the afternoon we all met up at the world renowned Monterey Bay Aquarium for a tour. Lucky

for us, Ben Jealous had been the youngest employee ever to provide guided tours at the facilities 40-plus years ago. The founding director happened to be onsite and was delighted to provide our subdued band of enviros a private two-hour tour. As our exploration of the massive facilities progressed, and with the viewing of exhibits containing strange and mysterious underwater creatures from the deep, our group was becoming reinvigorated. Conversations and joyous laughter became infectious and elevated, especially after we surprised a young couple of flirtatious clown birds (ruffin puffins) engaged in serious romance!

As daylight diminished and the sun set in Monterey Bay, we all gathered on the outside deck to toast Sierra Club's past victories protecting our planet, and to anticipate future successes. Almost like a scene out of a hit movie, Ben yelled out, "Humpback at two o'clock!" Offshore, a pod of whales was breaching and spouting water ten feet in the air. That moment seemed to completely change the atmosphere, as full engagement followed over the course of the next two days. The board made difficult decisions necessitating the possible future reduction of nearly ten percent of our incredible staff and trimming 36.8 million dollars to balance the budget.



Chapter Chair Cris Corley with Sierra Club's Executive Director Ben Jealous.

Over the next few days, my early predawn awakenings were greeted by the sounds of more than a dozen loud sea lions moaning for their next meal. The long days of various complicated discussions were followed by sunset sojourns on remote beaches. Most of the directors returned home Sunday, affording me a bit of solitary time alone since my frequent flyer miles limited my travel to a midday flight on Monday. (Continued on page 7)

The Tennes-Sierran

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113th Tennessee General Assembly Legislative Report

by Scott Banbury, Sierra Club Tennessee Chapter Conservation Director



April 25, 2024 saw the end of the second year of the 113th Tennessee General Assembly, as representatives and senators rushed to start fundraising for this summer's campaigns. Following the partisan ruckus that marred 2023, including the ouster and subsequent reelection of Representatives Justin J. Pearson and Justin Jones, and the near expulsion of Representative Gloria Johnson, the divide only got deeper. The majority leadership adopted rules to limit floor debate and, in many cases, moved legislation through committees without meaningful debate by prematurely

"calling the question" with voice votes before objections could be raised. Sadly, public participation was also thwarted by limiting both access to both committee meetings and attendance in the gallery of the House Chamber.

Nearly every legislative decision was made at the committee level, since almost all votes on the House or Senate floors broke along strictly partisan lines. This made meaningful public participation extremely challenging since most legislation is introduced as "caption bills," which open the affected area of law with a description that has nothing to do with its ultimate intent. Amendments that "make the bill," and reveal its true intent, are not made public until as little as 48 hours before being decided in committee. This makes it virtually impossible for the media or advocacy organizations like the Sierra Club to inform the public and engage their constituencies.

Despite these challenges, Sierra Club and our many organizational and community partners were able to stave off much of the most environmentally harmful legislation introduced this year, and advance legislation that benefits the environment and human health.

Perhaps the most consequential piece of bad legislation we were able to stop this year was an attempt by Representative Kevin Vaughan to roll back Tennessee's wetland protection policies to being "no stricter than federal," as redefined by the U.S. Supreme Court. In May 2023, that Court's decision precluded regulation of "isolated wetlands" that are not connected to streams on the surface. Fortunately for us, the Tennessee Water Quality Act does recognize the need to protect wetlands that recharge aquifers or connect to streams through subsurface hydrology. This bill could have resulted in the loss of protection for 432,850 of the state's 787,000 acres of wetlands. A broad coalition came forward to stop this bill through lobbying and testimony in a half-dozen committee meetings, eventually leading to the Senate Energy, Agriculture, and Natural Resources Committee sending it to "summer study," a process getting underway as I write this in early June.

In 2023, Representative Clark Boyd passed a bill that preempted local communities from establishing their own definitions of "clean" and "renewable" energy sources. In 2024, he tried to merge the two lists, but we were able to stop it in the Senate. This is important as municipalities move forward with local sustainability ordinances that seek to exclude fracked gas and nuclear energy from what is included as "sustainable" or "clean." We were also able to stop a poorly conceived bill that would have made Tennessee taxpayers bear the cost of developing fracked gas power generation sites in Tennessee, regardless of whether TVA wanted them or not.

(Continued on page 6)

MTG Makes Connections on Earth Day

by Antoinette Olesen, Chair, Middle Tennessee Group

Sierra Club Middle Tennessee Group expanded its Earth Day presence this year in Nashville's Centennial Park, procuring two booth spots connected with activities for children and adults on one side, and tabling on the other. Kids learned how to make wildflower seed balls and took them home to their gardens, and decorated colorful ribbons with their wish for Earth Day. MTG welcomed an ally, Conserve Nashville's Highland Rim Forest, which drew additional interest and allowed us to raise awareness of this important forest that stretches through middle Tennessee and far beyond. Judson Newbern reported a win: three contacts were interested in placing their land in the conservancy! It was nice to have an example of how Sierra "thinks globally and acts locally" by working with other like-minded groups.

MTG signed up folks interested in hikes, programs and volunteering. Several students and their parents expressed interest in being involved and starting envionmental groups in their schools.

An Introduction from the New Director

by Pat Cupples, Chapter Director

In early April, I received an offer to join the Sierra Club as the Tennessee Chapter Director, and to say I was thrilled is an understatement. My discussions with the hiring committee about the outstanding work and wonderful members across Tennessee were inspiring. I was also grateful for my June start date. It felt like ample time to plan our move to Nashville, transition my local conservation work to my friends at Mastic Beach Conservancy, and spend quality time with my family. We've done well on all fronts,



and I have especially enjoyed attending my boys' sporting events and jazz band performances, not to mention reflective moments around the firepit with my wife and friends.

June arrived in a flash. That first Saturday morning, I found myself virtually surrounded by the amazing people that make up the Sierra Club Executive Committee in a productive and insightful Zoom meeting. While there is much for me to learn, my gears immediately started turning with each committee report on how I can support the excellent work already being done. Coming from a volunteer-based organization, I am incredibly impressed with your achievements, past and present. Tennessee's Chapter has a strong foundation, thanks to all your hard work as volunteers.

That Monday, my official start date, came at an interesting time for the Sierra Club, as it also marked a national restructuring. Despite these challenges, each onboarding call was filled with generosity and grace. Our Deputy Regional Field Director, Kate West, provided me with effective tools and organization, setting me up for success. I am also very grateful to Dr. Corley and Bill Moll; our conversations over the last few months have been filled with background knowledge, local insights, and laughs.

By the time this issue goes to press, I hope to have met many more of you at meetings and local outings. I want to learn what brought each of you to the Sierra Club and the local projects and issues you are most passionate about. I am honored to join you and can't wait to spend every day advancing our mission to explore, enjoy, and protect the wild places of the Earth.

Contact Patrick at pat.cupples@sierraclub.org

Care NET Celebrates Earth Day

by Nancy Bell, Care NET Regional Conservation Committee

The Tennessee Chapter Care NET Regional Conservation Committee celebrated Earth Day April 27 at the historic Crockett Springs Park and Arboretum in downtown Rogersville. Under the newly green trees, members had a springtime plant swap and set out booths with free homemade delicious baked goods; products repurposed into useful items, from tote bags to hand-held fans; and natural products for health, cleanliness, and beauty. Energy was another theme with a display of a solar cooker, electric lawn and garden equipment, and electric vehicles from a UTV to a Tesla. Energy Right, representing TVA, educated the public about an important opportunity to make their homes more energy efficient.

From the stage on the gazebo, the popular "Flying Js" and the Clinch Mountain Ukers recycled favorite oldies, making the celebration even more joyful. Denny Hawk's songs and Danita Dotson's poetry deepened the meaning of our day.

Several friendly homesteader groups collaborated with their own handicrafts and plants. As the Care NET members in their various shades of green circulated, greeting the crowd, all said that getting to know other people and groups was a great way to have fun, especially while celebrating our planet and sharing ways to care for it.

Contact Nancy at nancywithbell@gmail.com

Hold the Dates! Chapter Winter Retreat

January 17-19, 2025, the Middle Tennessee Group will host the Chapter's annual winter retreat at Cedars of Lebanon State Park featuring hikes, interactive activities, a guest speaker and great cabin- cooked food. This is a family event with crafts and activites for all ages. Please plan to attend and stay tuned for more details.

Contact Antoinette at time4nashville@gmail.com

TVA's Pattern of Deceit Revealed

by Jamie Satterfield, Guest Writer

The Tennessee Valley Authority (TVA) has been deceiving the public, workers and regulatory agencies about the danger its waste — radioactive coal ash dust — has been posing to human health for more than 40 years, the agency's own records show.

Within months of firing up its first coal-fired power plant in Paradise, Kentucky, in 1963, the radioactive dust — the byproduct of burning coal at extreme heats to produce electricity — was peeling the paint off the vehicles belonging to workers and nearby townspeople, according to a report by a TVA executive based at the utility's Chattanooga headquarters.

The dust was also filling the air and coating houses, outdoor clotheslines and businesses in Paradise. Residents were worried and looked to TVA for information on whether that ubiquitous dust was dangerous, the report showed.

TVA did nothing to monitor the air in and over Paradise or test coal ash dust, the report showed. Yet, the utility's "director of health" assured citizens in a three-page report steeped in scientific terminology that there was nothing to worry about.

"While we do not have an autometer in the village of Paradise, from extrapolation of available (carbon dioxide) data and consideration of the particle size of the fallout material involved, it has been concluded that the air pollution problem in the village of Paradise is primarily of a nuisance nature," TVA's O.M. Derryberry wrote in that 1963 report. "A hazard to human health does not appear to be involved."

TVA would offer a similar conclusion to residents in Claxton, Tennessee, when coal ash dust produced at the utility's Bull Run coal-fired plant (beginning in 1967) polluted the air and corroded paint on homes and vehicles there.



Jamie Satterfield with one of many awards she has received, this one a Scripps Howard award for her reporting on the aftermath of the 2008 Kingston coal ash spill. Photo by Amy Vellucci Keller. Derryberry said in his report that he based his conclusion that coal ash dust was safe to breathe on the notion that the only pollutant of concern billowing from its smoke stacks at its Paradise plant was sulfur dioxide, and that coal ash dust particles were too big to become lodged in the lungs. Neither assertion is true. Decades of testing by the utility itself has shown its coal ash dust to be a mix of all kinds of dangerous and technologically enhanced toxins, heavy metals and radioactive materials — all of which pose a threat to human health.

Testing throughout the years has confirmed that those pollutants are encapsulated in tiny particles, known as particulate matter 2.5, within the coal ash dust. The particles are nearly invisible to the naked eye and lodge in the lungs, where the toxins are dispersed into the blood stream.

Derryberry's report was TVA's first public lie — couched in pseudo-science and manipulated or misused scientific data — about its coal ash. It has not been the last, nor has TVA been the only coal ash producer to hide, downplay or outright fabricate the risk coal ash dust poses to human health.

A Pattern of Deception

In 1968, TVA and its fellow coal ash producers funded an advocacy group — the American Coal Ash Association – for the sole purpose of touting radioactive coal ash waste as a safe alternative to all kinds of materials, including fill dirt, sand, concrete filler, asphalt filler, snow melt and even cosmetics.

The group called it "beneficial reuse" and — despite mounds of evidence coal ash dust both emits radiation and contains unsafe levels of radium, uranium, thallium and other cancer-causing radioactive metals — continues to this day to assert it is no more dangerous than dirt.

Whenever the Environmental Protection Agency (EPA) holds hearings to determine if coal ash should be regulated as a hazardous waste, the American Coal Ash Association always takes to the podium to defend the substance as safe. TVA routinely engages its lobbyists in Washington, D.C. to carry the same message to key members of Congress.

When billions of gallons of coal ash sludge came spilling out of a dump at TVA's coal-fired plant in Kingston, Tennessee in 2008, onto 300 acres of land and into East Tennessee's primary water supply sources, TVA's then-chief Tommy Kilgore stood before Congress and, under oath, misled its members about coal ash.

"Much of this fly ash is actually sold, and I don't want . . . what happens there, when we burn the coal, it consolidates these materials," Kilgore

said at a January 2009 congressional hearing on the Kingston spill. "But when you use it in concrete or in soil, stabilizers and things like that, you actually spread this back out to where it is about natural background again ... That is a beneficial use. It spreads all of those elements back out, similar to what they are in the natural soils."

Kilgore's statement is contradicted by TVA's own internal documents and basic science.

In 1981, for instance, TVA commissioned a white paper with a goal of convincing the EPA not to regulate coal ash as a hazardous waste. That paper concluded that even when encased in concrete, coal ash emits radiation and would increase the risk of cancer to those living in homes built with concrete containing coal ash in place of sand.

The same paper recommended respiratory protection for workers exposed to coal ash dust — something TVA would later refuse to provide workers at the Kingston disaster site and insist to regulators, including the EPA and the Occupational Safety and Health Administration, that workers didn't need.

TVA produced another white paper in 1995. This one was designed to justify the use of coal ash as fill dirt in an industrial park in Clinton, Tennessee, should the question of safety ever arise. That paper, too, conceded coal ash contains radium and uranium and other dangerous radioactive metals and emits radon, a radioactive gas, at unsafe levels.

Workers, Public Misled

While Kilgore was misleading Congressional leaders in the days following the December 2008 Kingston spill, other TVA executives were deceiving the public, emergency workers, members of the U.S. Coast Guard and disaster workers of the dangers of exposure to coal ash. Even as TVA had in its inbox an email alerting the utility that the Kingston ash was emitting the equivalent of radiation exposure from two x-rays a day every day, TVA executives told the public and political leaders the Kingston ash emitted no more radiation than low-sodium table salt and insisted even that bit of radiation came only from potassium-40. The assertion, of course, hid the real radiological danger in coal ash dust — unsafe levels of radium and uranium documented by Duke University's examination of the Kingston ash weeks after the spill.

The Tennessee Department of Environment and Conservation (TDEC) also documented unsafe levels of radium and uranium in the Kingston ash in January 2009, posting the results in a public post on its website. Within days, TDEC's Chuck Head had removed that report from the agency's website, slashed the uranium readings by 97 percent, deleted radium readings and reposted it on the agency's website — without any notice to the public of the change or the prior findings.

When Head's actions were exposed through investigative journalism a few years ago, he abruptly took early retirement and was immediately hired as a TDEC contractor whose sole job was to defend TDEC's handling of the Kingston ash testing and clean-up operation at various public and governmental meetings, TDEC's own records show.

TVA's Office of the Inspector General documented several instances in which TVA delayed providing emergency workers information about the coal ash to which they were exposed at Kingston, and minimized and sometimes outright misled the public about the risks of exposure in public statements.

TVA's deception of its Kingston disaster workforce about coal ash dust is now well-documented, largely as the result of an award-winning journalistic investigation and a court battle by those workers for financial justice from a TVA contractor.

[^] Records within TVA's own archives on the spill show TVA falsely told OSHA that Kingston disaster workers were outfitted with respirators immediately after the spill — at the same time the utility was assuring the EPA such devices weren't necessary.

The Kingston workforce was never provided masks or respirators, and were never told — by TVA, its contractors or regulators — that coal ash dust is unsafe to breathe. Today, more than 50 of those workers are dead and dozens more sick — all felled by diseases and cancers the ingredients in coal ash are proven to cause.

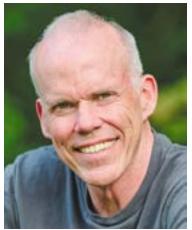
Those workers aren't the only casualties of Big Energy's deception about coal ash. Far from it. Studies have shown that rates of cancer are higher among citizens living near coal-fired plants, and court files are littered with real-world cases to back up that data.

For instance, coal ash exposure has been blamed for the high rate of deformities suffered by children born to women living next door to coal ash piles in the Dominican Republic. Workers who helped build and maintain a Virginia golf course made up of a mix of dirt and coal ash reported sicknesses and cancers as a result of the exposure. Citizens in Perry County, Alabama, reported being sickened from exposure to the Kingston ash TVA dumped in a landfill there after the spill.

For TVA and its Big Energy brethren, coal ash is, indeed, a "nuisance." Coal-fired plants across the Tennessee Valley and the world produce millions of tons of the stuff every day. It costs (Continued on page 7)

All about the Gas: Will the Planet Turn to the Sun in Time?

Climate Activist Bill McKibben writes about a TVA listening session he attended May 8. Reprinted from https://billmckibben.substack.com/.



I'm writing this as I sit in a 'listening session' conducted by the Tennessee Valley Authority in Nashville, hearing arguments about how the giant utility should power the region for the next few decades. But I could be almost any place on the planet and the argument would be pretty much the same: do we build out gas to replace coal for producing electricity, or do we go straight to sun, wind, and batteries? It's the argument that will decide how much our earth overheats.

I'm going to attempt an analogy here, always a dangerous thing. Imagine the fossil fuel industry as a cartel of confectioners, who have grown absurdly rich selling

sweets. But now the entire world is teetering on the edge of diabetes (that would be climate change). They could deny diabetes exists, or that it causes any problems; eventually, after enough people lose their legs, that gets harder. Coal is the equivalent of, I don't know — cotton candy, or candy corn, something so absurdly sweet that even addicts recognize it might be problematic. So they've come up with something else: cookies and muffins sweetened with something that has half the sugar! But wait, it turns out to be sweetened with something else, that causes lots of cancer. (I hope you're getting the carbon and methane references here.) So maybe they invent an expensive therapy to remove some of the sugar from your bloodstream — that would be carbon capture. The one thing they simply won't do is stop producing candy.

But their real problem is that some competitor has discovered this thing called fruit. Tastes great, and you can eat it without medical difficulty. It's *good for you*.

That's the situation the fossil fuel industry finds itself in right now. Here in this auditorium, utility lobbyists are insisting that you can only run a modern economy on fossil fuel; one fossil fuel proponent is holding up a light switch and arguing that without hydrocarbons it will be useless. But California, this spring, has been running the world's fifth largest economy on windpower, hydropower, and solar power, backed up with batteries. As a result, natural gas usage hit an eight-year low. This morning comes the news that globally renewable energy generated a third of the world's power last year, and the momentum to install more is so strong that greenhouse gas emissions from the power sector almost certainly peaked last year. Last week, roofing giant GAF opened a mammoth Texas plant devoted to making solar shingles that you can nail down. As Heatmap reports this morning, even historic European buildings with terracotta roof tiles can now have matching red solar panels.

It's cheap, it's clean, people like it — but it is deeply dangerous for the fossil fuel industry and their friends in utilities worldwide, who are desperately trying to get gas locked in for another few decades. That's why the outcry was so fierce when President Biden paused new permits for liquefied natural gas (LNG) export facilities in January: the industry knows that every quarter it gets harder to make the case that overseas utilities should build the power plants that use the fuel, when they could just put up panels and batteries instead. As she so often does, award-winning environmental journalist Amy Westervelt has the details behind the industry's desperate scramble to make natural gas a "destination fuel." Drawing on documents that came out in the Congressional oversight hearings, Ms. Westervelt writes (in the May 2024 edition of Drill):

"The industry has known for decades that methane leaks, including intentional venting and flaring, were a potential problem for the story of gas as a climate solution. A 2015 study commissioned by the Natural Gas Council and prepared by management consultancy ICF lays the issue out clearly. On the draft obtained by the House Oversight Committee, an Exxon commenter notes: 'Uncombusted methane is a big part of the inventory.' Uncombusted methane is leaked or vented methane."

But just as they constructed a PR strategy to pretend climate change was a non-issue, they worked with their expensive university partnerships to position gas as the clean way forward. At the very beginning, this strategy might actually have made sense, back before we understood the threat posed by methane and when renewables cost far more than fossil fuels. But they've just kept making the same argument and it's getting very old — when former Energy Secretary Ernie 'Frack' Moniz released a new pro-gas report last week (alongside Joe 'Coal' Manchin, and Lisa 'Oil' Murkowski), increasing numbers of key congresspeople just giggled (and not at his haircut). Senator Sheldon Whitehouse summed up their feelings: "This report is yet another example of the industry deceiving the public about the compatibility of continued — or even expanded — production of natural gas with the scientific emission reduction targets we must achieve in order to meet the goals of the Paris Agreement and avoid the very worst effects of climate change."

Indeed, a large swath of centrist and progressive congressional Democrats signed a letter to the Biden administration asking them to make their LNG pause permanent.

Greenhouse gas emissions associated with the LNG supply chain should be evaluated against international and domestic climate targets, and examined within the context of existing and proposed LNG export facilities. To do so, The Department of Energy (DOE) should publish greenhouse gas emission estimates for each proposed project. DOE should also ensure that its public interest determinations follow the letter and spirit of President Biden's Executive Order on Revitalizing our Nation's Commitment to Environmental Justice for All and account for cumulative impacts faced by frontline communities — especially those who live near LNG export facilities.

Needless to say, if this were done honestly, no new LNG facility would ever be approved and this year's "stagnation" for the industry would stretch out forever — which wouldn't be much of a blow to those in the countries destined to receive these cargoes. Europe is already awash in gas — it's switched so decisively towards renewables in the wake of the invasion of Ukraine that as winter ended, its gas stores were still 60 percent full, a record. And Asia — the market these new LNG terminals are being built to service — is increasingly figuring out the economics of it all. A new report from Zero Carbon Analytics found that solar costs are falling so fast in places like China and India that forecasts of gas demand are now in freefall.

Especially as domestic reserves are depleted and reliance on LNG rises, there is a looming risk that gas will not remain cost-competitive with cheaper, locally abundant energy sources. This could lead to backsliding to more dependence on coal in some countries, such as India, where coal represented 55 percent of energy consumption in 2022, but conversely could also see a stronger uptake in wind and solar. Here, India is targeting around 50 percent of power generation from non-fossil fuel sources by 2030.

The International Energy Agency attributes the gas demand destruction behind its falling forecasts to the rise of renewable energy as a power generation source, and to improved energy efficiency, particularly in mature markets. Solar costs in Asia Pacific APAC fell by 23 percent on average in 2023 alone, helping to drive expansion. Wood Mackenzie likewise found that utility solar PV was the cheapest source of power in the Asia Pacific nations in 2023.

So if you can't sell it to the Europeans, and you can't sell it to the Asians, maybe you can sell it to the...red states? That seems to be the plan, which is why I'm sitting in this hearing room alongside many excellent local advocates. One state over in South Carolina, the legislature is currently debating a new law that would "increase the Palmetto State's dependence on methane gas as a source of power generation, even as the burning of that harmful greenhouse gas accelerates the drowning of the state's low-lying coast." One state regulator has already resigned in disgust, saying the law would give utilities a "blank check."



Climate Activisit Bill McKibben (left) talks with TVA President and CEO Jeff Lyash (right) at TVA's May 2024 listening session in Nashville. Photo courtesy of Sarah Terpstra.

But the big prize may be here in the Tennessee Valley, where the TVA is expected to announce tomorrow that it will replace a coal-fired power plant with a gas-powered one. Six of the nine TVA board members are appointed by President Biden, so this is a place where you'd think they'd honor the spirit of his gas pause, but so far no. In addition to this new plant in Cheatham County, according to the indefatigable climate wonk Leah Stokes (whose book on utilities is the go-to source), the TVA plans on adding a 5.1-megawatt gas-fired power plant, compared with paltry, even by regional standards, levels of renewables. Since the Biden administration wants a clean electric grid by 2035, this makes no sense. And yet here we are.

Bill McKibben is founder of Third Act, a group and campaign for climate change activists over 60 years old. His extensive writing about global warming includes his book The End of Nature, the first ever written about global warming for a general audience. He was the 2011 recipient of the Sierra Club's highest honor, the John Muir Award.

Chattanooga Pursues National Park City Status

by Dave Hoot - Chairperson, Cherokee Group

WHAT IF* . . . "What If" is how the National Park City (NPC) organizers want Chattanooga to approach the idea of becoming the first National Park City in the Americas. Yes, that is Americas, with an "s", meaning the entire Western Hemisphere. But this movement is not just for Chattanooga's benefit, and help is needed. More on that later.

The National Park City catch-phrase of WHAT IF, followed by their symbolic asterisk *, is missing a question mark on purpose. It opens the mind to possibilities hoped for, but not realized. It invites people to finish that sentence. What if we had pollinator gardens in every part of Chattanooga? What if we turned this whole thing upside down and, instead of traveling to go to a national park, we just live in one? What if we get it right? What if we build the most livable city in North America? These are some of the questions proposed during a promotional YouTube video promoting Chattanooga as a National Park City:

https://www.youtube.com/watch?v=w3KQXKNnLnY

The last two questions are asked by Scott Martin, Director of Chattanooga Parks and Outdoors. After relocating to Chattanooga from Idaho two years ago, he became the spark to ignite this heady concept that is unfolding into a reality. As a board member with World Urban Parks, Scott was inspired by his contact with Daniel Raven-Ellison, the ONLY urban National Geographic Explorer. Ellison began the National Park City Foundation after years of witnessing how the status quo of city life can negatively affect nature and humanity alike. His homebase of London became the first NPC in 2019, followed by Adelaide, Australia, in 2021. It's already making a difference in Adelaide. For example, a project to reintroduce the platypus to the downtown River Torrens has been undertaken. The platypus is endemic to Australia and, extinct from the Adelaide area since

the mid-1970s, was a vital component to the river's ecosystem. Improving conditions as a result of the NPC movement has made this possible.

Chattanooga is poised to become the third NPC by 2025 — with a little help from its friends. Sierra Club's Cherokee Group has hosted two well-attended NPC presentations/workshops over the past year. The enthusiasm both times was palpable. Chattanooga has already worked through the first five of the 10 steps and 23 criteria required and is now on the critical sixth step, "Making Our Case — Growing Community — Securing Support."

Anyone who utilizes the Scenic City, whether for residence, business, or recreation, can show support by signing the



petition on the website.

The NPC movement aims to be global and contagious. Of the handful of leading candidates, Chattanooga is the outlier. The others are primarily in the British Isles and the Netherlands. However, 30 other cities have taken first steps to reach NPC designation. Every continent, except Antarctica, is represented. The hope is to model the environmental and social goodness that comes from holding to a set of principals so that the framework becomes a standard approach to urban life. In the United States, a Tennessee city could very well be the example of how this is done. Follow Chattanooga's NPC progress here:

www.chattanooganationalparkcity.org

Contact Dave at hoot.david@gmail.com

Scott Banbury's Legislative Report (continued from page 3)

We also stopped the "Blockchain Basics Act," which would have preempted local communities from establishing their own zoning or planning ordinances regarding the siting of crypto currency mining operations. Crypto currency "mining" operations consume massive amounts of electricity to operate enormous banks of computers that run encrypted "proof of work" calculations. It is designed to make money for a small number of mostly out-of-state investors, with little to no local jobs or benefits.. These operations have moved to Tennessee and other southeastern states due to our relatively low energy costs and lack of local land use regulations. Our hard work to increase energy efficiency and renewable energy generation could be easily negated by the proliferation of these cryptocurrency mining operations, and we will continue to work to stop them at the local and state level.

Progress was made on solid waste issues this year. While we weren't successful in passing it this year, Sierra Club and partners were able to gain a lot of traction with our Tennessee Waste Reduction and Recycling Act (TWRRA), which would shift the cost of recycling and disposal of packaging materials to the companies that produce them. Five other states have adopted comprehensive Extended Producer Responsibility for Packaging legislation, with Minnesota being the most recent this year. This would be a huge boon to both our municipal and rural recycling programs that are currently struggling with separating recyclable materials in a way that is both cost effective and able to serve the economic potential of the circular economy. Working groups will be unfolding this summer to address these issues, and we'll be there. Legislation also passed that allows counties greater flexibility in managing tire waste funded by the fees that consumers pay on new tires. Hopefully this will lead to better enforcement and fewer tires being dumped in our rivers and streams.

One of the glimmers of hope on the horizon is the recognition of increasing extreme weather events and their impact on our communities and important industries like agriculture. Both parties introduced bills requiring the Tennessee Department of Environment and Conservation (TDEC) to post information regarding storm events, flooding and landslides across the state. The hope would be that we'd eventually have a real time data access point where anyone could login and know what's happening currently or what is coming. The ultimate goal is to establish a "mesonet" in Tennessee. A mesonet is a network of collectively owned and operated automated weather stations that are installed close enough to each other - and report data frequently enough — to observe, measure, and track mesoscale meteorological phenomena in a way that allows users to make real-time, land-use decisions. Again, we came close this year with bipartisan legislation and look forward to making this happen next year in the 114th General Assembly.

Another issue that we started to gain ground on this year is the impact of PFAS, so-called "forever chemicals," in Tennessee. These chemicals are implicated in reproductive and developmental disorders as well as prostate, kidney and testicular cancers. They are extremely long lived in the environment and bioaccumulate in the food chain. In April 2024, the Environmental Protection Agency (EPA) finalized a critical rule to designate two widely used PFAS — PFOA and PFOS — as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act, also known as Superfund. In April 2024, EPA also issued the first-ever national, legally enforceable drinking water standard to protect communities from exposure to harmful PFAS. The final rule will reduce PFAS exposure for approximately 100 million people, prevent thousands of deaths, and reduce tens of thousands of serious illnesses. EPA concurrently announced a further \$1 billion to help states and territories implement PFAS testing and treatment at public water systems and to help owners of private wells address PFAS contamination.

PFAS are introduced to Tennessee's waters via direct discharge at waste water treatment plants and landfills, as well as land application of biosolids (sewage sludge) as fertilizer on farms and soil amendment at hazardous waste management sites across Tennessee. We were prepared for the EPA's new rules and rolled out legislation to ban the use of PFAS in consumer goods, and require monitoring of PFAS at all water discharge points, including land application of sewage sludge. We backed this up with our own independent testing led by Tennessee Sierra Club volunteer Dan Firth. We are hopeful that we can make Tennessee a leader in addressing PFAS pollution next year.

I must report that we lost a few important battles this year. The biggest may have been allowing third-party engineers, inspectors, etc. to perform permitting and approval responsibilities that traditionally fell to TDEC, or municipal/county code enforcement. This could involve local building codes, or activities regarding decentralized sewer systems that you might expect the city, county or TDEC to be doing. Come October, third parties will be able to sign off on these activities, purportedly to accommodate the rapid growth in Tennessee. We should all remain vigilant as to how this plays out in our local communities.

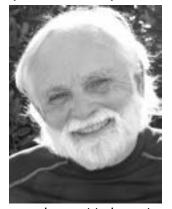
Several bills put forward by the administration that surprisingly were not passed included legislation that would have made it easier for the Tennessee Division of Forestry to recoup costs from high impact events on state forests, and the creation of a program that would have allowed farmland owners to enroll their properties in a state-held temporary conservation easement that would have slowed the loss of agricultural land in Tennessee. And the Governor was able to get legislation passed that makes it easier for state parks and the Tennessee Wildlife Resources Agency to subcontract visitor services.

To view a complete list of all the state legislation that the Tennessee Chapter of the Sierra Club has worked on in 2024, please see: https://bit.ly/TNSC-LegislativeTracking

Contact Scott at: scott.banbury@sierraclub.org or 901-619-8567

Shrinking Gardens

by John Nolt, Harvey Broome Group



My father, whose ancestors were Mennonites, grew up on a farm in northeastern Ohio in the 1930s. Though in adulthood he worked mostly as a journalist, he kept his roots in the soil. When I was a boy, he rented and cleared two overgrown fields (maybe an acre each) in our neighborhood, and hired a farmer to plow them. One he planted entirely in strawberries, the other in vegetables, mostly sweet corn. On spring and summer Saturday mornings, starting very early, he insisted that I work with him there, planting, weeding, and hoeing. I was resentful and felt sorry for myself, yet it

was pleasant to be out under the open sky with my dad. At harvest time, the whole family worked. My mother cooked and canned, and my sister and I sold strawberries and sweet corn from a table by the street in front of our house.

As my father aged, his job grew more demanding, and his health declined. (Like many at the time, he was a heavy smoker.) His garden shrank correspondingly. After my parents moved to a new house, he maintained only a small strip of vegetables at the end of their back yard.

Despite my childhood resentment, gardening took root in me, too. During college and graduate school, I lived mostly in apartments, but planted tiny gardens where I could. Later, when I settled in a home of my own with an ample yard, I planted large gardens, backed by berry bushes, and fruit trees. I've worked them organically for decades now. Their soil is deep and rich. Few things so deeply and regularly engage my muscles or my care — or give me so much joy. Summer brings a bountiful harvest. And with what I've learned from the land (and with the milder winters induced by climate change), I can often harvest at least a smattering of vegetables year-round. Still, as I age, these gardens too will inevitably shrink.

In terms of acres per capita, home fruit and vegetable gardens have probably been shrinking for at least a century. In early twentieth century America, most households had them. Now most don't. We are crowded together in cities, in the business strips astride highways, or in immaculate metastasizing suburbs, where little thought is given to growing food. In cities, new houses and apartment buildings are often shoehorned between existing ones, and space for gardens is squeezed out. People living in apartments or condominiums may grow a tomato plant or two on a balcony; but rarely can they have much of a vegetable garden, and fruit trees almost never. It's different, of course, in suburbia. Many homes have gardens, but often only of decorative plants or flowers, not food. Some suburbanites frown on fruit and vegetable gardens as violations of their aesthetic. Upscale homeowners' associations sometimes even forbid them. Only the rural countryside still wholeheartedly welcomes gardening for the table. But rural country too is shrinking.

There was a brief renaissance in gardening during the Covid years, when many people stayed home from work and feared food shortages; but that was likely just a blip in the downward trend. Might it not, though, at least sometimes, have been an expression of unfulfilled desire?

Despite the long-term trend, there is a lot to like about home gardening. It relieves stress. It provides the freshest food possible. (Try this taste test: fresh-picked vs. day-old corn on the cob.) It is pleasant and wholesome exercise — especially when done entirely with muscle power. It decreases our dependence on carbon-intensive supply chains that stretch around the world. The home garden's surpluses can be traded or shared with neighbors, promoting community. Gardening increases familiarity with the weather and the creatures (birds, small mammals, turtles, skinks, insects, etc.) that we otherwise seldom notice. Of course, some of these can be irksome; don't get me started about the groundhogs. But others seem almost magical; last fall, I regularly traded whistles with a song sparrow who perched on a pole in my garden almost every morning.

What about people who have no access to land at all? Europeans, who live in dense cities, have a solution for this. People come together and buy or rent some land, often just outside of town, then divide it into family-sized gardens. They may keep their tools in a small shed there. Often, they get there by bike. There are, of course, many obstacles to such sane and beneficial ideas here, but much more gardening could be done than is. And even a tomato plant in a pot on the balcony is something.

Contact John at nolt@utk.edu

COPPERHEAD

by Denton Loving

Dead: the copperhead that slipped down the ridge in summer's elongated dusk to forage small prey and taste cool creek. And me, racing against the sun on its path beyond the mountains to end my task mowing tall grass between apples, pears and peaches.

Before the snake, I had been looking without resentment at the day well spent, a day devoted to necessary labor. Later, memory of cold blood spilled on steel blades lingered in the night air like honeysuckle and regret.

Denton Loving lives and writes from the Cumberland Gap region of Tennessee. "Copperhead" is reprinted from his most recent collection of poems, Tamp (Mercer University Press).

Jamie Satterfield (continued from page 4)

money to store it and land space is limited. So, these producers stack it in dirt pits — polluting groundwater — mound it in open piles — polluting the air — and sell it as "beneficial" and safe — exposing a wider swath of people to its dangers.

But there is simply no doubt, here in 2024, that coal ash dust is a hazardous waste, a very real threat to human health, and must be regulated by the EPA as such. It is a danger to workers and must be regulated by OSHA. It must be removed from pits and mounds and landfills and into safe storage areas. Contaminated groundwater and public drinking waterways must be remediated.

That will only happen if citizens, now armed with the truth, insist on action. I hope each of you reading this will be inspired to do so and put a stop to this deadly, decades-long deception.

Jamie Satterfield was an investigative journalist for more than 33 years, specializing in legal affairs, public corruption, environmental crime and civil rights violations. Her journalism has been honored as some of the best in the nation, earning recognition from the Scripps Howard Foundation, Society of Professional Journalists' Sigma Delta Chi Awards, the Green Eyeshade Awards, the Tennessee Press Association, the Tennessee Managing Editors Association, the First Amendment Center, and many other industry organizations. Her work has led to criminal charges against wrongdoers, changes in state law and citations in legal opinions and journals. She now serves as an investigator for the Tennessee 6th Judicial District Public Defender's Office.

Contact Jamie at ladyjusticeseeker@gmail.com.

Cris Corley (continued from page 2)

That is when my current ear worm struck. Sojourning along a sparsely populated area of the bay early mid-morning, I happened upon a sea lion lying on the beach in obvious distress. I made a hasty call and a park ranger arrived. He noticed my Sierra Club hat and commented that one of his old high school class friends now heads up the organization. I was proud to be able to say Ben was also my friend. The ranger noted the infected two-inch cut on the crown of the sea lion's head, apparently common due to surfboard encounters in big waves — sea lions like catching a wave as much as old surfers from Malibu do. The marine animal rescue team responded and, before transporting my injured friend to the sea aquarium hospital, assured me he would probably be returning to the surf after a few weeks of R&R and a big shot of antibiotics. Sitting on a big boulder after everyone left, the tune in my head

started playing, "I wish it was Sunday 'Cause that's my fun day. . .." I awoke early the next morning to the loud familiar sounds of my

new-found sea lion friends wanting a meal, and the melody again started sounding. I started to sing, and out of nowhere came, "It's just another Monterey Monday. . ."

Contact Cris at chapter.chair@tennessee.sierraclub.org

Mark Your Calendar! The Tennessee Chapter Fall Retreat

Fall Creek Falls State Park's Group Campground ~ October 18-20 Peak Leaf Color — Scenic trails and waterfalls — Campfire Friday and Saturday Nights After-Dinner Speaker and/or Live Music Costs around \$60 Per Person Includes Full Breakfast Saturday and Sunday Saturday Evening Cabin-Cooked Dinner Discounts for Students and First-Time Attendees (Suggestions for a speaker or musician or activities are welcomed)

Contact Harvey Broome Group Chair Jerry Thornton — gatwildcat@aol.com 865-719-9742

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RETREAT SCHEDULE				
	LOCATION	DATES		
Fall 2024	Fall Creek Falls State Park	October 18-20		
Winter 2025	Cedars of Lebanon State Park	January 17-19		
Spring 2025	Fall Creek Falls State Park	May 2 - 4		
Fall 2025	Natchez Trace State Park	October 24 - 26		

Connect Locally!

Groups and Regional Conservation Committees Meet Regularly Throughout the Year

Find contact info for leaders in the right column on page 2.

Call for ExCom Nominees!

The Tennessee Chapter is looking for good candidates for the Executive Committee to be elected in November this year. Please step up and suggest to the Nominating Committee yourself or some other Sierra Club member who would be a good leader of the Chapter. The NomCom will interview and evaluate potential nominees and develop a slate of nominees to fill seats that are up for election this Fall. If you wish to run for an ExCom position and are not selected by the NomCom to be a nominee, you may petition to be on the ballot — at least 15 Chapter member signatures are required.

Submit nominations by July 1 Nominating Committee selects a slate of nominees by August 1 Petition to be added to the ballot by September 1

Questions? Contact Tim Weeks at timweeks@att.net





Be a champion for the environment. Join today for \$15.

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