

Tennes-Sierran

The monthly state newsletter for the Tennessee Chapter Sierra Club

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State Issues Fewer Fines To Polluters

Ben Hall, Investigative Reporter

NASHVILLE, Tenn. - The number of fines issued by state regulators for polluting Tennessee's rivers and streams has fallen dramatically in the last five years.

Some citizen groups are now taking matters into their own hands and suing polluters themselves. They are using a provision in the federal Clean Water Act that allows citizens to sue if they feel regulators are not enforcing the law.

The Harpeth River Watershed Association is one of the latest groups to threaten a lawsuit using the Clean Water Act. It claims three sewage treatment plants have repeatedly violated the pollution limits that are part of their own permits -- endangering the future of the popular Harpeth River. "The folks who live here smelled for several months, a sewage smell," said Dorie Bolze as she pointed to drainage pipe in the back yard of a Franklin neighborhood. The pipe leads to Cartwright Creek which goes directly into the Harpeth.

Pictures from last May show what appears to be toilet paper and raw sewage filling the ditch, apparently from a nearby sewage line. "It's extremely disturbing because kids are playing right there," Bolze said, pointing to the creek. "That's where everybody likes to play in the neighborhood."

Bolze is executive director of the Harpeth River Watershed Association. Her organization filed a 60-day notice of intent to sue three sewage treatment plants near the Harpeth last month.

The small Cartwright Creek Sewage plant oversees the sewer line in the neighborhood where she is standing. The homeowner reported the problem to the state, but the state has not

issued a fine or even a notice of violation.

The city of Franklin sewage treatment plant and the Berry Chapel Utility sewage treatment plant have also repeatedly allowed raw sewage to overflow into the Harpeth -- violating their permits, but the state has not cited or fined either in the last five years.

Renee Hoyos with the Tennessee Clean Water Network, told *NewsChannel 5 Investigates* that her group and others have resorted to suing the polluters directly using the Clean Water Act -- because the state is not citing them. "At this point in the last two years we're seeing very little enforcement from TDEC, and it's disturbing," Hoyos said. "If the state doesn't step in and say, 'we have these laws and we are going to enforce them uniformly,' bad business practices get repeated," Hoyos continued.

In 2008, the Tennessee Department of Environment and Conservation issued 204 water violations. In 2012, it issued just 53, according to a recent report from the Tennessee Clean Water Network.

"We're talking about companies that violate thousands of times in the life of their permit. Thousand of times and the state has been silent," Hoyos said.

The Harpeth River Watershed Association claims that has happened on the Harpeth. It has threatened to sue the Cartwright Creek Treatment Plant LLC, Berry Chapel utility and sewage treatment plant and the city of Franklin sewage treatment plant -- claiming thousands of violations among them.

Franklin's city administrator disputes the number of violations. "That's not a full picture, and it's a gross overstatement," Eric Stuckey

said. "We're not perfect, nobody is. But we have a track record of taking responsible action fixing it," Stuckey continued.

In Franklin's initial response to the threatened lawsuit, it proudly pointed out the sewage plant has not been cited or fined by the state in at least five years. "They're the experts," Stuckey said. "Their judgement has never risen to the level of issuing violations or issuing a fine or anything close to that severity on the city of Franklin."

But Hoyos, who is not part of the Harpeth River case, said it does not mean that much that if state has not cited a company for polluting. "It doesn't mean that you're not polluting. It doesn't mean that you're not violating. It just means they have not enforced against you for whatever reason," Hoyos said.

She expects more lawsuits involving the Clean Water Act in Tennessee. She said, if the state will not go after polluters, citizens will.

The Tennessee Department of Environment and Conservation said it could not discuss the Harpeth River Case because of potential litigation.

A spokesperson said the state reviews all lawsuits filed under the Clean Water Act and has issued fines to polluters in certain cases. The department claimed the economy was more active in 2008 than it is today, and that is why there are fewer enforcement actions now.

But environmental groups blame dwindling state funding and a lack of state investigators for the decline in enforcement.

To view the story go to NewsChannel5.com. Article taken from NewsChannel5.com with permission of Ben Hall and [NewsChannel5](http://NewsChannel5.com) in Nashville.

Watauga River - Beech Mountain Water Grab

By Gloria Griffith

The hearing was amazing. The crowd was so large, it over filled the 119-seat capacity meeting room and the Commissioners had to move everybody down the street to the county court house to accommodate all the people who attended. Even then, the 300 capacity courtroom was full and people were standing.

Removing the high quality waters designation from the Watauga River would open it up to more pollution from wastewater discharges, high-density development and landfills. The reclassification would have long term, profoundly negative impacts on the water quality of the Watauga for generations to come.

Citizen comments were limited to 3 minutes. More than 74 people provided comments for almost two hours. A diverse crowd attended providing fabulous public hearing testimony. There were democrats, republicans, independents, farmers, kayakers, anglers, artists, engineers, teachers,

professors, plumbers, construction workers, people that work at home, outdoor recreation business owners, retired people, students and more who all spoke in strong opposition to the Beech Mountain water grab.

"If the Watauga County Commissioners rubber stamped the Beech Mountain request, almost none of the people who own land along the river or the people who swim, fish and boat in the Watauga would have known about this attempt to strip the river of its protections," advised Watauga RiverKeeper, Donna Lisenby.

At the end of the public comment period, each commissioner spoke and thanked the public for attending. A motion was made to deny approval of the Beech Mountain reclassification request and water withdrawal from the Watauga River. It was seconded and all commissioners voted in favor of the motion. The capacity crowd then rose to their feet and gave the Watauga County Commission a standing ovation.

3rd Annual Youth Empowerment Summit

The Tennessee Youth Environmental Network (TennYEN) is holding its third annual Youth Empowerment Summit (YES) this year. We invite rising 8-12th grade students to a five-day overnight camp in Nashville, June 2-6th. Participants will enjoy workshops, speakers, and actions throughout the course of the Summit. Each day of YES is developed by a youth organizer around a specific theme, including energy, food and waste. More information concerning YES or TennYEN can be found at our website www.tennyen.org.



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Tennes-Sierran

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ARTICLE SUBMISSION GUIDELINES:

Submission Target Date is May 25 for the July-August issue.

1. E-mail and e-mail attached files are preferred. Send to gvanhorn26@gmail.com either with embedded text messages, or attached files. Attached files are preferred. Word is preferred but Apple users may send articles in Pages.

2. Photographs should be scanned in a .jpg or a .tif file format then either attached to e-mail or mailed via U.S. Postal Service on a 3 1/2" diskette or CD RM. Please include a stamped, self-addressed envelope if you would like your diskette or photo prints returned.

3. Hard-copy handwritten or typewritten articles may be accepted: however, pre-approval from the Editor is required.

4. Any materials submitted via USPS mail will not be returned unless a stamped, self-addressed envelope is provided.

5. Concerns or complaints should be addressed to: Barbara Kelly, Communications Committee, bk1rivers@comcast.net.

The opinions expressed in the Tennes-Sierran are those of the contributors and do not necessarily reflect the official views or policies of the Tennessee Chapter, or the Sierra Club.



It's time for America to get smart about energy and be less dependent on dwindling oil reserves. We need to increase our use of clean, renewable energy sources like wind and solar power. Let your voice be heard.

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**Please notify the
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are needed**

Tennessee's Wilderness Takes Critical Step Toward Protection

Local community cheers Senators and urges for House introduction

Chattanooga, TN (April 8, 2014) –Senate Committee passage of the Tennessee Wilderness Act (S. 1294) was applauded today by a diverse coalition of hunters, anglers, business owners, faith leaders, outdoor recreationists, and conservationists. Members of the U.S. Senate Agriculture, Nutrition, and Forestry Committee approved the bill and sent it to the Senate floor. The Act's sponsor, Sen. Lamar Alexander, testified in favor of the legislation. It is co-sponsored by Sen. Bob Corker, and was first introduced in 2010 during the 111th Congress. The measure could result in the first new wilderness for Tennessee in 25 years.

The Tennessee Wilderness Act will safeguard nearly 20,000 acres of public land, expanding five existing wilderness areas and creating the new Upper Bald River Wilderness Area. All of these areas were recommended for wilderness designation in the U.S. Forest Service's 2004 management plan. Widespread support for the conservation bill includes endorsements from

hikers, hunters, business owners, local lawmakers, members of the faith community, and others.

The Tennessee Wilderness Act would safeguard clean drinking water for surrounding communities. It would also preserve important wildlife habitat for brook trout, black bear, bobcat, white-tailed deer, and many other species. Hiking is very popular in the proposed areas, and the bill includes parts of the historic Appalachian and Benton MacKaye trails.

Outdoor recreation is a booming industry in Tennessee. It generates \$8.2 billion in consumer spending annually and supports 83,000 jobs, and the Cherokee National Forest is a vital part of that economic engine. Preserving 19,556 acres of the forest as wilderness will enhance the state's reputation as a premier outdoor recreation destination.

The Tennessee Wilderness Act now awaits a floor vote in the full U.S. Senate and introduction in the U.S. House of Representatives.

Keystone XL- A Significant Increase of Global Greenhouse Gas Emissions?

By Joe W. McCaleb¹

President Obama has said publicly that he would not favor the Keystone XL international pipeline project if it is shown that the Keystone XL will “contribute significantly to an increase in carbon pollution” (aka greenhouse gases).

Does it? The FSEIS (Final Supplemental Environmental Impact Statement) dances all around the key word “significantly” to the delight of TransCanada and all other moneyed investors of fossil fuel refinement in this nation. But the FSEIS is not the end game; it’s not the decision; it only begins the “hard look” into the KXL’s potential environmental, cultural and economic impacts. (*“hard look” is the phrase coined by Justice Thurgood Marshall, deceased, in the now famous 1969 Overton Park case, and has become the legal standard when reviewing agency EIS documents*)

The final decision rest with the President and Secretary of State John Kerry. As a former environmental lawyer with considerable experience with NEPA (National Environmental Policy Act), I am encouraged by Obama’s statement because it means that he is knowledgeable of and applying American environmental law to his decision-making process, not just typical knee-jerk politics we have seen too often.

This article will examine the legal and science-based nature of these issues. After all, science is the backbone of nearly every single environmental protection act passed by congress in the 1970s, and subsequent amendments.

What is the meaning of “significantly” in law? The word is defined in the federal regulations developed over time as a guide to federal agencies trying to implement NEPA. The term is divided into parts, “context” and “intensity”, both of which have equal weight. “Context” refers to both short and long-term effects on the affected region or the affected interests of the local population or on society as a whole. When analyzing “context”, significance will vary with the setting of the proposed action. “Intensity” refers to the severity of the impacts. When analyzing “intensity” of a proposed action, the following must be considered: both beneficial and adverse impacts; affects to public health and safety; unique character of the geographic area such as histor-

ical or cultural resources, prime farmlands, wetlands, protected rivers, or ecologically critical areas; the degree of controversy; uncertain, unique or unknown effects on the human environment; the likelihood that the proposal may establish a precedent for future actions with significant effects; whether the action is likely to have “cumulatively significant impacts” (i.e., significance is not avoided by calling a project temporary or breaking it down into small individual parts); the degree to which an action may adversely affect objects listed or eligible to be listed on the National Register of Historic Places; the degree to which threatened or endangered species or their critical habitats may be adversely affected; and whether the action will violate federal, state or local laws designed to protect the environment. 40 CFR § 1508.27

There are many more definitions and moving parts to any NEPA review of a proposed federal action but since the President has defined the area he deems critical, my commentary is confined to that area. If the ultimate decision is reviewed by a federal court later, all of those other parts will become part of the “hard look”.

The FSEIS is composed of 11 volumes of highly technical data and it can be found at the following link: <http://keystonepipeline-xl.state.gov/finalseis/index.htm>. But for the purposes of influencing the President’s decision, you don’t have to tough through all 11 volumes. Some very important revelations are made in the 44 page Executive Summary (ES) and if you want to dig deeper, I recommend Vols. 1-3.

Looking at the Executive Summary and thinking about the legal meaning of the key word “significantly”, the following are salient points. Beginning with p. ES-14:

ES.4.1.1 Greenhouse Gas Emissions from the Proposed Project

The proposed Project would emit approximately 0.24 million metric tons of carbon dioxide (CO₂) equivalents (MMT CO₂e) per year during the construction period. These emissions would be emitted directly through fuel use in construction vehicles and equipment, as well as, land clearing activities including open burning, and indirectly from electricity usage.

During operations, approximately 1.44

MMTCO₂e would be emitted per year, largely attributable to electricity use for pump station power, fuel for vehicles and aircraft for maintenance and inspections, and fugitive methane emissions at connections. The 1.44 MMTCO₂e emissions would be equivalent to GHG emissions from approximately 300,000 passenger vehicles operating for 1 year, or 71,928 homes using electricity for 1 year.

To further understand the real meaning of these figures, the FSEIS uses a lifecycle approach to evaluate the potential indirect GHG emission impacts of the WCSB (Western Canadian Sedimentary Basin) crudes transported by the Project versus the other crude oils that would likely be displaced by this project. “Lifecycle” refers to a wells-to-wheels analysis (from raw material to final product), and by using this analysis, the FSEIS concludes that:

The total lifecycle emissions associated with production, refining, and combustion of 830,000 bpd of oil sands crude oil transported through the proposed Project is approximately 147 to 168 MMTCO₂e per year. (p. ES-15)

That is more than the annual lifecycle emissions of GHG of 830,000 bpd of the displaced crude oils by up to 30 MMTCO₂e per year. The FEIS explains that “the range of potential emissions is large” because of the many “variables” used in the comparisons. (p. ES-15); and concludes that “the total direct and indirect emissions associated with the proposed Project “would contribute to cumulative global GHG emissions.” p. ES-17 (my emphasis)

On that same page, the FSEIS states flatly that climate change will happen whether the Project goes forward or not and then predicts the changes in the climate that are coming will most likely “influence the impacts and effects attributable to the proposed Project.” In other words, whatever potential impacts the Project itself will have on the natural environment, climate changes will enhance those impacts and could even increase the risk of a pipeline spill through secondary effects such as flooding or drought.

So to sum up, taking the meaning of the word “significantly” as defined in NEPA and applying it to just the brief excerpts mentioned in this article, could you write a comment to the President and the Secretary of State explaining “yes, the Keystone XL will significantly increase global greenhouse emissions”!? For example: yes, the potential effects on the natural and human environment are highly uncertain and/or involve unique or unknown risks; yes, there will be cumulative significant impacts throughout the 27 county, 3 state route area as well as globally; yes, the potential effects on the human environment are highly controversial because the FSEIS documents the differences of view about potential impacts and their scientific basis(s); and yes, there is enormous potential risk creating unimaginable costs to groundwater serving the needs of 2,537 families on water wells, 39 public water systems, 3 large aquifers, 1,073 surface water bodies, 56 rivers, etc... (p. ES-21), for which there is no suggested remedy.

Read the executive summary; cite to specific sections or page numbers; and relate your comment to the criteria found in the definition of “significantly”.

¹ Joe W. McCaleb, B.A., J.D., M.S.E.L. Retired attorney. Life member of Sierra Club since 1977.



Meetings

The public is very welcome at ALL Sierra Club Meetings and Activities! All members traveling across the state should feel free to drop in and attend another Group's meetings. You will find yourself among friends and learning something interesting.

CHEROKEE GROUP (Chattanooga) -- 2014: Learn Globally, Then Act Locally

TBA: DIY Solar Panel Workshop, led by Davis Mounger. Our Workshop was so successful we are planning another! If you might be interested in coming, call Davis at 423. 877. 4616 or shoot him an e-mail at wdmounger@yahoo.com. Our two-part solar workshop covers two areas: learning the basics of a grid-tied system and building a stand-alone system. We'll walk you through the popular Enphase system, where solar panels are tied directly into a breaker box, and a routing system called Envoy logs solar performance and sends it to a website for you to view at any time. We'll discuss layout, expenses, skills, and the latest in solar tech. The DIY stand-alone shows how you can build a solar panel from the cell up using silicone encapsulation. The discussion then moves to charge controllers, inverters, and battery arrays.

Strategy/Business Meetings: May 12 and June 9. (2nd Monday) 6:30 P.M. - Held at Second Presbyterian Church, at the corner of E. 7th Street and Pine, 700 Pine Street [parking is free in their Pine Street lot, across the street from the church, next to the old Blue Cross (orange) building.] If you want to be connected to the Environmental Buzz in/around Chattanooga -- this is where to be. Come add your ideas and share your concerns. We'll be planning our actions here. All are welcome!

May Program: 3rd Monday, MAY 19, 7:00 P.M. at Outdoor Chattanooga, Coolidge Park, 200 River Street, Chattanooga.

Learn: Hiking Trails and Groups Hiking in and around Chattanooga. We've invited a Panel of folks from area hiking groups to come and talk about their favorite trails around here, and about their groups. There should be something for the fast to the slow hikers, from families with kids, to adult singles! Come mix and mingle and be prepared to sign up for some outings! It'll be a very interesting program!

The public is very welcome and healthy snacks are served, bring something along to share if you'd like. Parking is free in the driveway & parking lot behind the building, or paid parking in the Theatre lot. Invite your friends!!

Act: Wildflower Outing to the Shirley Miller Wildflower Trail, May 10, at the base of Pigeon Mountain just down the road in Georgia. Botanist John Evans will be our guide to view what is in bloom along The Shirley Miller Wildflower Trail, as well as pointing out specifics on the shrubs and trees. This trail is brilliant with native flowers that many people never get to see. To register, and for details of time and meeting place, contact Barbara Kelly, bk1rivers@gmail.com or 423. 718. 5009.

NOTE: Our May Program meeting is being held a week earlier than usual, to avoid meeting on the Memorial Day holiday.

June Program: 4th Monday, June 23, 7:00 P.M. at Outdoor Chattanooga, Coolidge Park, 200 River Street, Chattanooga.

Learn: Electric Bikes! The fastest growing segment of the bicycle market worldwide are electric bikes. Far from the clunky, ugly electric bikes that emerged 10 years ago, today's models are sleeker, faster and can be used on roads and trails. Join Chandlee Caldwell, Electric Bike Specialists, for a presentation on the types of bikes, batteries and motors available today and **get a chance to demo some new models!** Come have fun.

Act: We'll be planning a bike ride in July. Sign up at the meeting!

The public is very welcome and healthy snacks are served. Parking is free in the driveway & parking lot behind the building, or there's paid parking in the Theatre lot. Invite your friends!!

CHICKASAW GROUP (Memphis)

Check <http://www.facebook.com/Chickasaw.Group/> for meeting information.

HARVEY BROOME GROUP (Knoxville)

Second Tuesday of each month - 7:00 P.M. - 8:30 P.M., Tennessee Valley Unitarian Universalist Church, 2931 Kingston Pike, Knoxville, TN.

May 13 - to be determined

June 10 - to be determined

Contact Mac Post (mpost3116@aol.com, 865-806-0980) for additional information. All Harvey Broome Group meetings are free and open to the public.

MIDDLE TENNESSEE GROUP (Nashville)

PROGRAM: May 8, 7:00 P.M. at Radnor Lake Visitor Center (always enter from Granny White Pike)

It's Time to Pass the Tennessee Bottle Bill: (10 Years + 90 Percent + \$1 Billion = 2015) - Marge Davis, president of Scenic Tennessee, and coordinator of its Tennessee Bottle Bill Project (Recycling Refunds), will talk about the status of this feisty, populist, David-takes-on-Goliath campaign to boost recycling, clean roads, and create green jobs. She'll go over the lessons we've learned since 2004, the alliances we've formed, and above all, why the time is ripe to take this legislation over the finish line in 2015. Ten years ago, the wasting rate for Tennessee's beverage containers was roughly 90 percent; currently, the wasting rate for Tennessee's beverage containers is still 90 percent. Ten years without a 5-cent deposit on glass, plastic, and aluminum beverage containers translates to perhaps 100 million pounds of additional litter on our roadsides, at least \$50 million in fundraising dollars that did not get channeled to our schools, and the energy equivalent of 15 million barrels of oil that

could have been saved. The cumulative value of 40 billion wasted containers—in squandered scrap value, needless collection costs, and avoidable landfill fees—works out to about a billion dollars—and that's not counting the unrealized economic impact of 500 new redemption businesses that did not incorporate, 2,000 green jobs that were not created, and at least a dozen Tennessee processors and manufacturers unable to expand their operations. Marge cautions that she is no math major, but these are numbers that should matter to every legislator. It will take all of us to make sure they hear this information. Come to tonight's meeting and we'll discuss how to make it happen.

PROGRAM: June 12, 7:00 P.M. at Radnor Lake Visitor Center America's National Parks, Forests, and Wildlife Heritage: Mack Prichard will narrate a program on the roots of American conservation from the gospel of Thoreau, Muir, both Presidents Roosevelt, and latter day saints and sinners. Also highlighted will be the value of volunteer efforts to shape our governmental agencies to respond to increasing "population, technocracy and greed".

Mack, the Tennessee State Archaeologist Emeritus and the State Naturalist Emeritus, will illustrate his presentation with the best of his 50-plus year photo archive from Tennessee and the U.S.A. Mack has been involved in co-founding about 30 Tennessee coalitions, including our Sierra Club chapter. Through "benevolent manipulation" he helped save over 30 parks, natural areas, and historic sites, including Radnor Lake and Savage Gulf.

If you enjoyed Ken Burns's recent videography of "The National Parks - America's Best Idea," you'll like Mack's version, peppered with quotations and his "stories behind the scenery." For many years Mack's program was voted the best of university recreation consortiums at Camp Tremont in the Smokies because he used Forbes's maxim, "The truth doesn't hurt, unless it ought to." We hope to see you at this special program.

This program is free and open to the public. **STRATEGY MEETINGS: May 20th, and June 17th, third Tuesdays at 6:30 P.M.**

Everyone is welcome at this local issues and business meeting. Meetings are usually held at the Mad Platter Restaurant, 1239 Sixth Ave. North, Nashville 37208 (near the Nashville Farmer's Market), but there may be times we meet elsewhere. *If you are not a regular attendee*, please contact Betsy at 668-1977 or garberb@hotmail.com in case the meeting location has changed. Come a bit early because we start the meeting at 6:30. The Mad Platter is not open on Tuesday evenings, so be sure to eat before you come or bring something with you. We look forward to seeing you.

WATAUGA GROUP (Northeastern TN)

PROGRAM MEETINGS: Every second Tuesday at 7 P.M. Please contact Gloria Griffith at gla4797@earthlink.net or 423-727-4797 for more information.

Outings

CHEROKEE GROUP (Chattanooga)

Our activities are always open to the public and to members of the Club from across our state! Outings are planned to take in the interests and skill levels of the participants. Please check our **Facebook page, Cherokee Sierra**, for the latest on our outings. Also **like our Wilderness Act 50th Anniversary Activities - TN page** -- join with us as we celebrate Wilderness all year!

TBA: Build Your Own Solar Panel Workshop was so popular we are holding another! To sign up and for more information, contact Davis Mounger at 423. 877. 4616 or shoot him an e-mail at wdmounger@yahoo.com. Our two-part solar workshop covers: learning the basics of a grid-tied system and building a stand-alone system. We'll walk you through the popular Enphase system, where solar panels are tied directly into a breaker box, and a routing system called Envoy logs solar performance and sends it to a website for you to view at any time. We'll discuss layout, expenses, skills, and the latest in solar tech. The DIY stand-alone shows how you can build a solar panel from the cell up using silicone encapsulation. The discussion then moves to charge controllers, inverters, and battery arrays.

May 10 (Sat.) Wildflower Outing to the Shirley Miller Wildflower Trail, May 10, at the base of Pigeon Mountain just down the road in Georgia. Botanist John Evans will be our guide to view what is in bloom along The Shirley Miller Wildflower Trail, as well as pointing out specifics on the shrubs and trees. This trail is brilliant with native flowers that many people never get to see. To register, and for details of time and meeting place, contact Elizabeth Tallman, elizabethtallman1@gmail.com or 423. 619. 0379.

June at Riverbend: Come sell beer with us! Have fun while fundraising!! We are helping Heartwood sell beer at their 2 booths. They are raising money for forestry actions and are giving Sierra all the tips! For 1 night's work you get a free pass to the whole Festival, a t-shirt and a lot of fun. To sign up, contact Sheryl Campbell at campfamily63@gmail.com. You will need to attend a short training by the Riverbend staff in May.

CHICKASAW GROUP (Memphis)

Time and dates of outings are to be determined. Check <http://www.facebook.com/Chickasaw.Group/>

HARVEY BROOME GROUP (Knoxville)

3 May (Sat). Dayhike, Spruce Flats Falls & Meigs Creek Trails, GSMNP. This hike will start at the Tremont Institute. From the Institute we'll take the "Falls Trail" to Spruce Flats Falls. This section to the falls (about a mile) is relatively steep with some difficult parts, but well worth the effort. Here there are a series of cascades that drop 100 feet. Spruce Flats Falls is perhaps one of the nicest unknown falls in the park. We will then go above the falls and find an unmaintained trail (i.e., old railroad bed). Parts of this unmaintained section of the loop are overgrown with rhododendron, littered with some fallen trees, and will require crossing Spruce Flats Branch a few times. Some remnants of Little River Lumber Company can be seen along this stretch. About halfway through the hike we'll find the junction of the Meigs Creek, Lumber Ridge and Meigs Mountain trails. The hike will then take the Meigs Creek trail down 3.5 miles to the Sinks. Along Meigs Creek are wildflowers and rhododendron (which

may be in bloom) and a number of small waterfalls, and numerous small creek crossings. Unless you have exceedingly good rock hopping skills, your feet will get wet. Changing into a pair of "water shoes" is recommended. This hike requires a car shuttle of about 8 miles. Rated moderate. The driving distance is about 50 miles from Knoxville or about 25 miles from our meeting location in Maryville. Preregister with BJ and Bob Perlack: perlack@aol.com; 229-5027.

10-11 May (Sat-Sun). Backpack, Gilliland Creek, GSMNP. We'll follow the Lower Mt. Cammerer Trail, the Appalachian Trail, and the Chestnut Branch Trail between Cosby Campground and Big Creek. After setting shuttle vehicles on Saturday, we'll hike a modest 3.3 miles to large and attractive Campsite 35 on Gilliland Creek. Sunday morning we'll ascend about 800 ft. in 4.2 miles to the A.T., then enjoy a beautiful 3-mile 1900-ft. descent to Big Creek. Along the way we'll see evidence of human settlement and discuss how the inhabitants of this area got along. Total hiking distance is 10.5 miles. Backcountry camp fee \$4 per person – check with the leader about reservations status. Rated easy. One-way drive: 65 miles. Pre-register with Warren or Carol Devine, 483-7894 or warrendevine@comcast.net

17-18 May (Sat-Sun). Backpack, Joyce Kilmer-Slickrock Wilderness (Deep Creek and Haoe Lead Trails to Mt. Haoe and Hangover), NC. The Joyce Kilmer-Slickrock Wilderness is one of the outstanding and most visited southeastern U.S. wilderness areas, but we're going to hike on a couple of less-used trails, from the Maple Springs Trailhead on SR 1124 (Wagon Train Road) near Robbinsville, NC. The road to this point was planned to continue on up the mountain to bisect the heart of the current wilderness; thankfully the wilderness designation stopped the road in its tracks, right where we'll start hiking. We'll camp on Deep Creek, and probably hike up to the high ridges for views from the peaks along Hangover Lead, including The Hangover rock overlook and Mt. Haoe. Hiking distance will be about 9.2 miles total with substantial elevation gain. Rated Difficult. Preregister with Will Skelton: H 523-2272; Cell 72-7327; whshome@bellsouth.net

24 May. Take-a-Hike, Biodiversity Tour (Pine Forest) Rabbit Creek Trail, GSMNP. This hike will feature the dry pine-oak forests of the Smokies that occur below 4,000 feet on exposed south facing slopes. This 5.4 mile hike from Abrams Creek to Campsite 16 and back will feature understories of mountain laurel, blueberry, and huckleberry with an open canopy of pines and oaks. Rated easy. Driving distance 20 miles one-way. Preregister with Mac Post at 865-806-0980 or mpost3116@aol.com (email preferred).

31 May (Sat). Wildlife Float, Rankin Wildlife Management Area, Douglas Lake. We'll explore backwaters accessible only by canoe or kayak and learn about wildlife that inhabits this wetland paradise. The float is suitable for paddlers with reasonable flat-water paddling skills - no currents to contend with. The paddle trip will commence at 5 P.M., making a loop from the tippie area for sunset & birds flying to roost. Limited to 4 boats in addition to the leader. You can expect about 3 to 5 miles of flatwater paddling. You'll have to arrange your own canoe rentals if you need a boat. For rentals, you might try Michael Sledjeski of the Rankin Bottoms Project, email mtnsylva@earthlink.net, or one of the outfitters in the Knoxville area. This trip will be repeated on June 14 (see below) as necessary to accommodate additional participants. One-way drive: 50 miles. Preregister with Ron Shrieves: phone 922-3518; ronaldshrieves@comcast.net (email preferred).

Ten Essentials for Hiking



Sierra Club outings offer a variety of wilderness and near-wilderness experiences. It is important to realize that while all trips are guided by a leader, it is ultimately the responsibility of the individual to operate in a safe manner. To this end, the following is a list of essential items which should be modified according to the particular type of outing. These are:

1. Adequate map
2. First aid kit
3. Compass
4. Rain gear
5. Extra clothing (it is a good idea to always have a wool hat)
6. Matches
7. Knife
8. Flashlight
9. Extra food, water
10. The tenth essential: You decide what is the most important thing to bring!

7 June (Sat). Dayhike, Mt Cammerer Firetower, GSMNP. We'll come in from the eastern park boundary at Davenport Gap, heading west on the AT to Mt. Cammerer Trail. From there it is .6 miles to the fire tower, where we'll have lunch. This is a less difficult hike than coming up from Cosby by Low Gap, but is still about 11 miles (round trip) with 3000 feet of essentially continuous incline on the hike in. That qualifies this hike as difficult. One-way drive: 70 miles. Pre-register with Conrad Ottenfeld, co11505@charter.net; 865-288-0975.

14 June (Sat). Wildlife Float, Rankin Wildlife Management Area, Douglas Lake. This trip is similar to the one described for May 31, so see that description. Preregister with Ron Shrieves: phone 922-3518; ronaldshrieves@comcast.net (email preferred).

21-22 June (Sat-Sun). Backpack, Mt. Rogers National Recreation Area (Crest Zone), Jefferson National Forest, VA. The Mt. Rogers NRA and adjacent Grayson Highlands State Park, in southwest Virginia, make for one of the most scenic backpacking areas in the southeast, with huge open grassy meadows fringed by spruce trees and rhododendron bushes, usually flowering in June. Portions actually look like the western U.S., and we'll learn about the unique history of the area. We will start and end in Grayson Highlands State Park, making a large loop around much of the NRA's "Crest Zone." We will camp at an "off-trail" campsite that's pretty much undiscovered, though in the heart of the area. Total mileage will be around 11 miles and possibly less if we do a shortcut. Rated Moderate. One-way drive: 170 miles. Preregister with Will Skelton: H 523-2272; C 742-2327; whshome@bellsouth.net.

28 June (Sat) Take-a-Swim, Biodiversity Tour (Aquatic Stream Diversity). Snorkel Citico Creek with the US Forest Service Fisheries Biologists. Streams in the Cherokee National Forest have an extraordinarily diverse assemblage of fish. In the clear waters of the snorkeling sites, it is typical to see 15 to 20 species of fish on any given day. Several thousand fish will be present. The experience is like swimming in an aquarium full of fish. Turtles, tadpoles and salamanders are all usually present. Cost is \$20 per snorkeler and includes Forest Service Biologist guide, life-guard, wetsuits, masks and snorkels. Driving distance: 75 Miles one-way. Preregister with Mac Post at 865-806-0980 or mpost3116@aol.com (email preferred).

MIDDLE TENNESSEE GROUP (Nashville)

We have an active outings schedule and want you to come along! To check out our outings, please click on the outing of choice at <http://www.meetup.com/Middle-Tennessee-Sierra-Club-Outings-and-Adventures/events/calendar/>

Letter Regarding EPA's Coal Ash Rule

March 3, 2014

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: EPA's Coal Ash Rule Must Ensure Public Safety and Establish Federal Enforcement Authority

Dear Administrator McCarthy:

The undersigned [#] public interest groups respectfully request that the EPA finalize a rule that requires the closure and cleanup of all coal ash ponds, establishes federal oversight and enforcement, and requires polluters to guarantee financial ability to clean up coal ash spills and pollution. The recent spill at Duke Energy's Dan River Power Station demonstrates the urgent need to address threats to the health, environment and economy posed by the nation's leaking and unstable coal ash dumps. In particular, this spill demonstrates the necessity for a final EPA rule to ensure safety from all coal ash dumps, both active and retired; to ensure that polluters are able to pay for cleanup; and to guarantee that EPA has the authority to enforce rules when states are unable or unwilling to do so.

On February 2, 2014, at least 140,000 tons of coal ash and contaminated water spilled from a "retired" coal ash lagoon at the Dan River Power Station in Eden, NC. The spill coated the river with coal ash for 70 miles, and dangerous levels of arsenic and other hazardous contaminants have been detected in the water. Although the plant closed in 2012, about a million gallons of toxic sludge remain in the unlined pond, posing a continuing threat to the underlying groundwater, the river, and communities downstream in North Carolina and Virginia.

The Dan River plant is only one of fourteen North Carolina plants where leaking and outdated surface impoundments are contaminating groundwater. Citizens attempting to enforce the Clean Water Act were blocked by the State of North Carolina, which instead suggested settlement with Duke Energy for violations at two of the plants for approximately one penny per ton of toxic coal ash stored at the plants and did not require the utility to clean up the pollution.

The harm from dumping coal ash in antiquated facilities extends far beyond North Carolina. Because almost all of the nation's 1,070 coal ash ponds are unlined, contaminated groundwater is the rule. To date, EPA and public interest groups have identified over 200 coal ash disposal sites in 37 states that have contaminated water with toxic chemicals, including arsenic, cadmium, chromium, lead and mercury. The location of most coal ash impoundments near lakes, streams and rivers endangers waterways and drinking water sources. Across the nation, coal-burning power plants with decades-old ponds are retiring in states that do not require safe closure and cleanup.

Unfortunately the EPA's proposed subtitle D rule does not address dumps that do not receive coal ash after the effective date of the rule, nor does it provide federal enforcement authority or require corporate financial responsibility. The disaster in North Carolina is a powerful reminder of the harm caused by dangerous and outdated toxic waste dumps, and it will not be the last such disaster if EPA fails to respond to the clear causes of the problem.

We urge you to finalize a coal ash rule that truly protects the health and environment of all American communities threatened by coal ash. The rule must close and clean up legacy dumps, provide EPA with enforcement authority, and ensure that those responsible for pollution have financial resources to fix the problem. These simple requirements, essential to protect Americans nationwide, must be the imperative and uncompromising goal of this Administration.

Respectfully,
Axel C. Ringe, Conservation Chair
Tennessee Chapter Sierra Club
865-397-1840
onyxfarm@bellsouth.net

Activism is the rent I pay for living on this planet - Alice Walker

Hazardous Waste Next Door: The Importance of the Definition of Solid Waste

Did you know that chemical companies, pharmaceutical manufacturers, and the industrial waste industry are exempt from a law requiring companies handling hazardous waste to protect public health and the environment? The Resource Conservation and Recovery Act (RCRA) was enacted in 1976, but in 2008 the Bush Administration exempted these companies handling the most dangerous substances from complying. This new rule was called "The Definition of Solid Waste" (DSW). Take a look at the chemicals slipping through this regulatory gap:

- Solvents like benzene, toluene, TCE and perc (linked to cancer, low birth weight, miscarriages, major malformations, and heart defects)
- Heavy metals like arsenic, lead, and mercury - potent neurotoxins and carcinogens

In 2011, thanks to legal challenge from the Sierra Club, as represented by EarthJustice, and due to the advocacy of environmental justice, civil rights, public health and other organizations, the EPA completed a groundbreaking environmental justice analysis and found that DSW's lax rules for hazardous waste disproportionately affected communities of color and low-income communities:

- Hundreds of sites where toxic releases have occurred in the past are consistently located in communities of color and low-

income communities.

- The 2008 DSW rule removes opportunities for public participation in siting and permitting decisions, disenfranchising non-white and low-income communities from critical decisions affecting their health and livelihoods.

The industries exempt from federal controls are often located in areas that already face exposure to multiple environmental hazards, and already have high cancer rates and neurological hazard rates as a result of exposure to pollution. In fact, in Illinois and Idaho, almost every hazardous waste recycling facility operating under the regulatory exemption is located in a community of color and low-income community.

The 2011 legal challenge required the EPA to publish a new DSW rule in 2012, but the EPA had taken no action until last month. On March 15, 2014, the Office of Management and Budget (OMB) finally began its regulatory review of the EPA's DSW rule.

The Sierra Club is part of a coalition of public interest organizations and individuals from across the U.S. that supports a DSW standard that protects our health, environment and livelihood from hazardous waste released from recycling operations. Together we are urging the administration to abide by the 90-day limit for review of this rule and to publish a final DSW rule by July 1, 2014.

The delay in issuing a final rule is exacting a high toll on communities of color and low-income communities. Since 1982, hazardous waste recycling has polluted more than 200 sites, including many on the Superfund National Priority List, which identifies the worst toxic waste sites in the nation. The EPA found that the majority of the contamination at these sites occurred when recycling operations were exempted from compliance with safeguards under the RCRA.

This is why the final DSW rule must reinstate these essential safeguards. There is an urgent need to close this gap for the health of the nation and particularly for environmental justice communities. The rule impacts management of 1.8 million tons of hazardous waste, predominantly in communities of color and in low-income communities.

Any further delay is unacceptable while toxic releases to air and water poison fenceline neighborhoods at recycling operations. We call on the OMB, the EPA, and the Obama administration to ensure that this important rule receives the priority it deserves so that the safety of the nation's most vulnerable communities can be ensured now and for future generations.

-- Leslie Fields, Director of the Sierra Club Environmental Justice and Community Partnerships Program

Climate scepticism: The top 10

What are some of the reasons why "climate sceptics" dispute the evidence that human activities such as industrial emissions of greenhouse gases and deforestation are bringing potentially dangerous changes to the Earth's climate?

As the Intergovernmental Panel on Climate Change (IPCC) finalises its landmark report for 2007, we look at 10 of the arguments most often made against the IPCC consensus, and some of the counter-arguments made by scientists who agree with the IPCC.

1. EVIDENCE THAT THE EARTH'S TEMPERATURE IS GETTING WARMER IS UNCLEAR

Sceptic

Instruments show there has been some warming of the Earth's surface since 1979, but the actual value is subject to large errors. Most long-term data comes from surface weather stations. Many of these are in urban centres that have expanded in both size and energy use. When these stations observe a temperature rise, they are simply measuring the "urban heat island effect". In addition, coverage is patchy, with some regions of the world almost devoid of instruments. Data going back further than a century or two is derived from "proxy" indicators such as tree-rings and stalactites which, again, are subject to large errors.

Counter

Warming is unequivocal. Weather stations, ocean measurements, decreases in snow cover, reductions in Arctic sea ice, longer growing seasons, balloon measurements, boreholes and satellites all show results consistent with the surface record of warming. The urban heat island effect is real but small; and it has been studied and corrected for. Analyses by NASA for example use only rural stations to calculate trends. Recently, work has shown that if you analyse long-term global temperature rise for windy days and calm days separately, there is no difference. If the urban heat island effect were large, you would expect to see a bigger trend for calm days when more of the heat stays in the city. Furthermore, the pattern of warming globally doesn't resemble the pattern of urbanisation, with the greatest warming seen in the Arctic and northern high latitudes. Globally, there is a warming trend of about 0.8C since 1900, more than half of which has occurred since 1979.

2. IF THE AVERAGE TEMPERATURE WAS RISING, IT HAS NOW STOPPED

Sceptic

Since 1998 - almost a decade - the record, as determined by observations from satellites and balloon radiosondes, shows no warming.

Counter

1998 was an exceptionally warm year because of the strong El Nino event. Variability from year to year is expected, and picking a specific warm year to start an analysis is "cherry-picking"; if you picked 1997 or 1999 you would see a sharper rise. Even so, the linear trends since 1998 are still positive.

3. THE EARTH HAS BEEN WARMER IN THE RECENT PAST

Sceptic

The beginning of the last Millennium saw a "Mediaeval Warm Period" when temperatures, certainly in Europe, were higher than they are now. Grapes grew in northern England. Ice-bound mountain passes opened in the Alps. The Arctic was warmer in the 1930s than it is today.

Counter

There have been many periods in Earth history that were warmer than today - if not the MWP, then maybe the last interglacial (125,000 years ago) or the Pliocene (three million years ago). Whether those variations were caused by solar forcing, the Earth's orbital wobbles, or continental configurations, none of those causes apply today. Evidence for a Mediaeval Warm Period outside Europe is patchy at best, and is often not contemporary with the warmth in Europe. As the US National Oceanographic and Atmospheric Administration (Noaa) puts it: "The idea of a global or hemispheric Mediaeval Warm Period that was warmer than today has turned out to be incorrect". Additionally, although the Arctic was warmer in the 1930s than in the following few decades, it is now warmer still.

4. COMPUTER MODELS ARE NOT RELIABLE

Sceptic

Computer models are the main way of forecasting future climate change. But despite decades of development they are unable to model all the processes involved; for example, the influence of clouds, the distribution of water vapour, the impact of warm seawater on ice-shelves and the response of plants to changes in water supply. Climate models follow the old maxim of "garbage in, garbage out".

Counter

Models are simply ways to quantify understanding of climate. They will never be perfect and they will never be able to forecast the future exactly. However, models are tested and validated against all sorts of data. Over the last 20 years they have become able to simulate more physical, chemical and biological processes, and work on smaller spatial scales. The 2007 IPCC report produced regional climate projections in detail that would have been impossible in its 2001 assessment. All of the robust results from modelling have both theoretical and observational support.

5. THE ATMOSPHERE IS NOT BEHAVING AS MODELS WOULD PREDICT

Sceptic

Computer models predict that the lower levels of the atmosphere, the troposphere, should be warming faster than the Earth's surface. Measurements show the opposite. So either this is another failing of the models, or one set of measurements is flawed, or there are holes in our understanding of the science.

Counter

Lower levels of the troposphere are warming; but measuring the exact rate has been an uncertain process, particularly in the satellite era (since 1979). Readings from different satellites need to be tied together, and each has its own problems with orbital decay and sensor drift. Two separate analyses show consistent warming, one faster than the surface and one slightly less. Within the uncertainties of the data, there is no discrepancy that needs to be dealt with. Information from balloons has its own problems but the IPCC concluded this year: "For the period since 1958, overall global and tropical tropospheric warming estimated from radiosondes has slightly exceeded surface warming".

6. CLIMATE IS MAINLY INFLUENCED BY THE SUN

Sceptic

Earth history shows climate has regularly responded to cyclical changes in the Sun's energy output. Any warming we see can be attributed mainly to variations in the Sun's magnetic field and solar wind.

Counter

Solar variations do affect climate, but they are not the only factor. As there has been no positive trend in any solar index since the 1960s (and possibly a small negative trend), solar forcing cannot be responsible for the recent temperature trends. The difference between the solar minimum and solar maximum over the 11-year solar cycle is 10 times smaller than the effect of greenhouse gases over the same interval.

(continued on page 8)

Climate scepticism: The top 10 (continued from page 7)

7. A CARBON DIOXIDE RISE HAS ALWAYS COME AFTER A TEMPERATURE INCREASE NOT BEFORE

Sceptic

Ice-cores dating back nearly one million years show a pattern of temperature and CO₂ rise at roughly 100,000-year intervals. But the CO₂ rise has always come after the temperature rise, not before, presumably as warmer temperatures have liberated the gas from oceans.

Counter

This is largely true, but largely irrelevant. Ancient ice-cores do show CO₂ rising after temperature by a few hundred years - a timescale associated with the ocean response to atmospheric changes mainly driven by wobbles in the Earth's orbit. However, the situation today is dramatically different. The extra CO₂ in the atmosphere (35% increase over pre-industrial levels) is from human emissions. Levels are higher than have been seen in 650,000 years of ice-core records, and are possibly higher than any time since three million years ago.

8. LONG-TERM DATA ON HURRICANES AND ARCTIC ICE IS TOO POOR TO ASSESS TRENDS

Sceptic

Before the era of satellite observation began in the 1970s, measurements were ad-hoc and haphazard. Hurricanes would be reported only if they hit land or shipping. Arctic ice extent was measured only during expeditions. The satellite record for these phenomena is too short to justify claims that hurricanes are becoming stronger or more frequent, or that there is anything exceptional about the apparent shrinkage in Arctic ice.

Counter

The Arctic Climate Impact Assessment project notes that systematic collection of data in parts of the Arctic began in the late 18th Century. The US National Hurricane Center notes that "organised reconnaissance" for Atlantic storms began in 1944. So although historical data is not as complete as one might like, conclusions can be drawn. And the IPCC does not claim that global warming will make hurricanes more frequent - its 2007 report says that if anything, they are likely to become less frequent, but more intense.

9. WATER VAPOUR IS THE MAJOR GREENHOUSE GAS; CO₂ IS RELATIVELY UNIMPORTANT

Sceptic

The natural greenhouse effect keeps the Earth's surface about 33C warmer than it would otherwise be. Water vapour is the most important greenhouse gas, accounting for about 98% of all warming. So changes in carbon dioxide or methane concentrations would have a relatively small impact. Water vapour concentrations are rising, but this does not necessarily increase warming - it depends how the water vapour is distributed.

Counter

Water vapour is essentially in balance with the planet's temperature on annual timescales and longer, whereas trace greenhouse gases such as CO₂ stay in the atmosphere on a timescale of decades to centuries. The statement that water vapour is "98% of the greenhouse effect" is simply false. In fact, it does about 50% of the work; clouds add another 25%, with CO₂ and the other greenhouse gases contributing the remaining quarter. Water vapour concentrations are increasing in response to rising temperatures, and there is evidence that this is adding to warming, for example in Europe. The fact that water vapour is a feedback is included in all climate models.

10. PROBLEMS SUCH AS HIV/AIDS AND POVERTY ARE MORE PRESSING THAN CLIMATE CHANGE

Sceptic

The Kyoto Protocol will not reduce emissions of greenhouse gases noticeably. The targets were too low, applied only to certain countries, and have been rendered meaningless by loopholes. Many governments that enthuse about the treaty are not going to meet the reduction targets that they signed up to. Even if it is real, man-made climate change is just one problem among many facing the world's rich and poor alike. Governments and societies should respond proportionately, not pretend that climate is a special case. And some economists believe that a warmer climate would, on balance, improve lives.

Counter

Arguments over the Kyoto Protocol are outside the realms of science, although it certainly will not reduce greenhouse gas emissions as far or as fast as the IPCC indicates is necessary. The latest IPCC Working Group 2 report suggests that the impact of man-made climate change will on balance be deleterious, particular to the poorer countries of the tropics, although colder regions may see benefits such as increased crop yields. Investment in energy efficiency, new energy technologies and renewables are likely to benefit the developing world.

Tennessee Senate Passes Resolution Promoting Clean Solar Power Sierra Club-Backed Resolution Recognizes the Need for TVA to Support Year Round Access to Safe, Reliable and Clean Solar Energy

The Tennessee Senate unanimously passed a resolution introduced by Senator Steve Southerland (R-Morristown) to urge the Tennessee

Valley Authority (TVA) and local power companies to continue expanding opportunities for Tennesseans and businesses to utilize renewable energy, including solar power. The final vote was 30 to 0.

The resolution specifically states the Senate's support for the right of Tennesseans to install renewable energy projects at their homes and businesses. The resolution also calls on TVA and its local power companies to facilitate interconnections for small renewable energy projects, like roof-top solar systems, throughout the state with simple and uniform interconnection procedures.

"The Sierra Club thanks Senator Steve Southerland for sponsoring this resolution that promotes the growth of solar energy in the Tennessee Valley," said Scott Banbury, Conservation Program Coordinator of the Tennessee Chapter of the Sierra Club. "We're very pleased the Senate recognizes the valuable economic and environmental benefits the solar industry provides to Tennessee homeowners and businesses, and is now urging TVA and its local power companies to facilitate more interconnections to the grid."

When TVA's Green Power providers program reached its capacity limit for 2013 last April, solar installers and citizens and businesses who had been working with them on plans for solar installations were left with different instructions coming from different local power companies about how to get their systems connected.

"When TVA curtailed its residential and commercial solar power programs last year, it left Tennesseans without a place to turn to for clean, affordable energy options," said Mary Mastin, Chair of the Tennessee Chapter's Repower America Committee. "With solar power accelerating in neighboring states, TVA should take immediate steps to expand its existing solar programs and further develop safe, simple and uniform grid interconnection procedures that are called for in this resolution. It's time for TVA to ensure year-round access to solar power for all Tennesseans."

Moving?



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Palm Coast, FL 32142-1041.

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