

May 2024 Newsletter No. 375 ISSN 1089-6104

"You must dig out facts and be very sure of them, and – with the dedication of an evangelist – you must be able to arouse people to the urgency of an issue."

> - Liane Russell: "Birth of a Trail and an Organization," in These Are Our Voices – The Story of Oak Ridge 1942 – 1970.

TCWP Newsletter

MEMBERSHIP DRIVE TEASER: You can join us for an exclusive hike on one of our Obed properties on June 29th. Watch our website, our Facebook page, and your email to discover how you can be part of this once in a lifetime adventure.

1. OAK RIDGE

1A. TCWP and AFORR meet with new Oak Ridge City Manager, Randy Hemann

The City of Oak Ridge has a new City Manager: Randy Hemann. Members of Tennessee Citizens for Wilderness Planning (TCWP) and Advocates for the Oak Ridge Reservation (AFORR) met with Mr. Hemann and Dr. Amy Fitzgerald (the City's Director of Government Affairs and Information Services) in late March to introduce these organizations to him and discuss some concerns and opportunities.

Mr. Hemann was enthusiastic about meeting with the group and expressed his interest for balance in addressing the needs of the City. He proudly spoke of his background working in several North Carolina communities and his contributions to economic development and recreational opportunities.

Clark Center Park is one of the opportunities discussed. The group clarifies that Clark Center Park has only about 42 acres above ground with the other half being submerged under Melton Hill Lake. While Mr. Hemann would like to retain the natural conditions of the area, he also noted that maintaining the Park requires that it generate income. Recently the Oak Ridge City Council asked the city to pursue discussion with the US Department of Energy (DOE) about Clark Center Park. The meeting with TCWP and AFORR members made Mr. Hemann more aware of the recreational opportunities



Inside this issue

- C. Environmental Management Disposal Facility: A shiny name for a problematic situation. D. Oak Ridge may become home for three salt-cooled demonstration reactors

E. Future Nuclear Plant in Oak Ridge receives Bipartisan Support and \$148.5 million.

- 2 State 5 A. The Wetlands Roller-Coaster B. TDEC to Receive \$156,120,000 from the Biden Administration's Greenhouse Gas Reduction Fund to **Deliver Residential Solar** C. Duck River is the most Biodiverse Freshwater River in the country and the most Endangered. D. The Southern Environmental Law Center files a lawsuit to protect the Duck River E. EPA derides TVA's analysis for Kingston methane gas plant and pipeline project. F. Another SELC lawsuit, this one to challenge the Pipeline to the plant.
 - challenge the Pipeline to the plant.G. TN AG Challenges use ofEnvironmental Racism as a factor inEPA's Pollution Regulation.

A Member of Community Shares

3. National Parks8

A. Adaptive Outdoor Rock-Climbing Program, June 15 at the Obed Wild and Scenic River

B. Biden Administration moves to make Conservation Equal to Industry on Public Lands.

C. New EPA Rule says 218 US Chemical Plants must Reduce Toxic Emissions that are likely to cause Cancer. D. New EPA Rules will Cut Pollution, but will they be upheld?

5. TCWP News9 A. Upcoming Events B. Recent Events

6. Did you know?.....12 A. From Board Member, Margaret Cumberland comes a new way to do ecology:

TCWP Board Meetings

The Officers and Directors of Tennessee Citizens for Wilderness Planning meet the third Thursday of each month. Members are welcome to call, email, or attend a Board meeting to raise issues that TCWP needs to address. We welcome your input. See inside front page for contact information.



Keep TCWP in Mind for Charitable Payroll Deductions through Community Shares. there and the Park's importance as the entryway into Three Bend Scenic and Wildlife Management Refuge Area.

The group brought up the possibility of seeking grants from forthcoming Natural Resource Damage Assessment (NRDA) funds to bring up to par some of the conditions at Clark Center Park. Mr. Hemann noted that there is also discussion about seeking NRDA funds to improve access around the Black Oak Ridge Conservation Easement (BORCE) and several guard shacks and to make other improvements in the City.

The Pellissippi Blueway was another topic discussed. Mr. Heman is very enthusiastic about the Blueway. The group discussed the interest in having the Pellissippi Blueway be a part of the June 22nd Oak Ridge Outdoor Festival. The need for better parking and handicapped access to the Blueway was mentioned.

The BORCE was discussed as a place of great interest to the city as well as to TCWP and AFORR. The illegal bike trails on the BORCE and the adjacent parcel called ED-6 were brought up, and TCWP members noted that DOE and TWRA are being contacted about that concern. Dr. Fitzgerald recalls discussions with members of AFORR in 2004 at which it was agreed that ED-6 would be set aside for development in exchange for the establishment of the 3000 acres BORCE. Mr. Hemann envisions development of ED-6 as a means to add to the tax base for the city. He said that the city would likely ask for a Request for Proposals regarding the future of ED-6 and that TCWP and AFORR would be part of the conversation.

The City is greatly concerned about a reduction in the Payment in Lieu of Taxes (PILT) that is part of DOE's agreement with the City since property taxes are not paid on DOE land. It is not clear what will happen to the \$150,000 the City receives from DOE each year in PILT for the BORCE land when the BORCE and other DOE property is transferred to the Tennessee Wildlife Resources Agency (TWRA). Dr. Fitzgerald noted that the possible loss of PILT on the BORCE is related to concern that DOE has not fulfilled the "self-sufficiency" commitments that it made to the city in 1984 when annual payments to the City were terminated.

In summary, TCWP and AFORR had a frank and positive discussion with Mr. Hemann and Dr. Fitzgerald. It is anticipated that this March meeting was the first of future discussions, and the groups should plan to talk about every six months or so. – *Virginia Dale*

1B. Pellissippi Blueway Flowing into Reality.

In 2020, TCWP along with Advocates for the Oak Ridge Reservation (AFORR) began a campaign to recognize and more fully utilize the pristine waterway formed by the Clinch River through Melton Hill Lake and the surrounding woodlands. This has resulted in the establishment of the Pellissippi Blueway. In its initial concept, the Blueway extends 26+ miles from Melton Lake Park in Oak Ridge to Melton Hill Dam.

Over the past year we have stepped up our efforts with the formation of a coalition of governmental and non-governmental organizations and recreation companies in support of the Blueway. These entities have come together to seek improved access to the Pellissippi Blueway, and greater public awareness of the many opportunities provided by the Blueway. For much of its length, the Pellissippi Blueway runs alongside unfragmented forests with high biodiversity and scenic value. Most of the forested land along the Blueway is public lands that are owned and managed by the Tennessee Valley

Authority (TVA), Knox County, and the US Department of Energy (DOE). The coalition plans to work with governmental agencies to maintain existing access and create new access where needed and to preserve and enhance the recreational and scenic values of the Blueway.

In the early stages of the Blueway coalition, we have been greatly assisted by Alison Bullock of the National Park Service's River, Trails, and Conservation Assistance Program (NPS RTCA). She has mentored and coached us in areas that were particularly helpful such as setting goals and developing the structure of the coalition. We have recently submitted a detailed application to the Park Service to receive continuing support from the RTCA. The Park Service expects to decide on our application in June.

Meanwhile our Blueway coalition has made much progress including the following:

- Developed the concept for the Blueway and organizational structure of the Blueway.
- Expanded the coalition to include 15 governmental (local, state, and federal) and non-governmental organizations and companies.
- Held monthly meetings to work on establishing the Blueway organization, work on access issues and publicity activities.
- Began work on a Memorandum of Understanding with the organizations in the Blueway coalition and other organizations.
- Identified the vision and goals for the Blueway.
- Received funding under the Small Grant Program of the Tennessee Chapter of the Sierra Club to develop and distribute a brochure about the Blueway.
- Completed a draft of brochure describing the Blueway.
- Completed a logo for the Blueway to be used for letterheads, marketing, signage, and publicity.
- Began establishment of a Pellissippi Blueway webpage: https://aforr.info/pellissippi-blueway/
- Completed access assessment forms for 8 access locations and completed float segment forms for 3 different segments.

Moving forward, the coalition plans to accomplish the following activities:

- Complete and distribute a brochure about the Blueway.
- Provide an operating, informative, and well-maintained webpage for the public.
- Complete all the access and float segment assessments for the Blueway and have them accessible through the webpage.
- Revise the Blueway map to better represent all the accesses and important features needed to explore the Blueway.
- Expand the Blueway coalition to include more community, governmental, and non-governmental organizations.
- Extend existing walking trails or create new walking trails to access the Blueway to promote hiking.
- Conduct outings on the Blueway to increase public awareness.
- Establish Clark Center Park as a public destination park focusing on the waterfront and natural surroundings.

There is much to be done in advancing our Pellissippi Blueway. Look for opportunities to join outings or get involved in the many aspects of the Blueway development. – Chuck Estes.

1C: Environmental Management Disposal Facility: A shiny name for a problematic situation.

Every two weeks members of TCWP and Sierra Club meet with a group of super smart scientists and lawyers to move forward with steps requesting EPA Administrator Regan to review the Record of Decision approving the EMDF. This group sent that request on February 28, 2024, which was followed by a letter signed by TCWP and 39 organizations. The following press release was designed by this group:

A coalition of community groups and retired environmental professionals with knowledge of the hazards posed by waste materials at the Department of Energy (DOE) facility in Oak Ridge, Tennessee, has requested that Environmental Protection Agency (EPA) Administrator Michael S. Regan review his decision regarding plans for a new landfill – a landfill the group maintains does not protect human health.

4 NL 375, May 2024

The group is challenging the EPA chief to protect human health and comply with federal Superfund law and its implementing regulations when disposing of Superfund waste on the Oak Ridge Reservation (ORR). The applicable law is the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the regulations are the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

EPA Administrator Michael S. Regan signed a CERCLA Record of Decision (ROD) for disposal of radioactive waste, toxic waste, and hazardous waste at the DOE's new Environmental Management Disposal Facility (EMDF) on September 30, 2022. After reviewing the ROD and monitoring the lack of progress toward addressing ROD deficiencies that were identified in public comments, the environmental professionals emailed a letter to Administrator Regan on February 28, 2024. The letter requested that: "you correct the EMDF ROD you signed, as EPA Administrator, so that it ensures (1) protective wastewater discharge criteria for current and future generations, (2) waste acceptance criteria (WAC) that will protect future generations, and (3) selection and implementation of a remedial action that complies with federal law and regulations."

The letter further stated, "We also request that you end the culture of non-compliance associated with CERCLA waste disposal at the DOE Oak Ridge Reservation (ORR)."

The letter points out that with this ROD being signed and approved by the EPA Administrator, it sets a bad precedent by allowing approval of CERCLA decisions without first demonstrating that the chosen remedial actions comply with CERCLA and the NCP. Threshold criteria that must be met for a remedial action to be selected include overall protection of human health and the environment and compliance with applicable or relevant and appropriate requirements (ARARs). Administrator Regan signed the ROD certifying that NCP-required protectiveness standards and ARARs are met. However, no demonstration using CERCLA methodology shows those standards are met. The letter includes examples and references ROD -approved approaches for discharging landfill wastewater containing mercury and PCBs to surface water that undermine Clean Water Act requirements. This precedent applies to both federal facility and non-federal facility CERCLA National Priority List (NPL) sites.

Instead of setting final remediation goals for landfill wastewater discharged to surface water and waste acceptance criteria in the ROD, the ROD postponed setting final remediation goals until after post-ROD supplemental analyses. Consequently, the public has had incomplete information for providing public comments. The coalition calls on Administrator Regan "to ensure complete information is made available to the public and the public is provided an opportunity to review that information and submit comments" on effluent limits and waste acceptance criteria.

The coalition looks to the EPA Administrator "to exercise leadership going forward at the DOE Oak Ridge Reservation (ORR) so that all work performed now and, in the future, follows the law and regulations. This includes not only decommissioning and demolition (D&D) of excess buildings and structures, associated waste disposal, and discharges to surface water, but also clean-up of the widespread ORR related contamination necessary to protect current and future generations and that caused ORR to be listed on the EPA National Priority List (NPL) in the first place."

The retirees' letter is supported by 8 attachments with some of their regulatory and technical analyses. The letter and Attachments may be found at: <u>https://aforr.info/wp-content/uploads/2024/02/Letter-to-EPA-Administrator-Regan-dated-Feb-28-2024-concerning-DOE-ORR-EMDF-ROD.pdf</u>

1D. Oak Ridge may become home for three salt-cooled demonstration reactors.

If the U.S. Nuclear Regulatory Commission (NRC) approves Kairos Power's second application for a construction permit, Oak Ridge's Heritage Center Industrial Park may host three Hermes salt-cooled demonstration reactors instead of one, as initially planned. These reactors, designed to produce heat and a small amount of electricity for the grid, represent a significant advancement in nuclear technology. The proposed Hermes 2 Demonstration Plant would incorporate two additional test reactor units, with the first building set to house a non-nuclear Engineering Test Unit as a precursor to the planned reactors. Kairos Power states that this development aligns with their mission to deliver clean, safe, and affordable nuclear heat.

The Hermes reactors, cooled by fluoride salt, represent a pioneering approach to nuclear energy, aiming to compete with natural gas in the U.S. electricity marketplace. Each reactor will generate heat using spherical fuel pebbles containing coated uranium fuel particles, a technology developed at Oak Ridge National Laboratory. The reactors will operate at low pressures,

reducing costs and eliminating the need for thick-walled vessels present in traditional pressurized water reactors.

1E. Future Nuclear Plant in Oak Ridge receives Bipartisan Support and \$148.5 million.

TRISO-X, a subsidiary of X-energy, received a significant financial boost of \$148.5 million from the U.S. Department of Energy and the Internal Revenue Service to support the construction of an advanced fuel facility in Oak Ridge. This funding, facilitated through the Inflation Reduction Act as part of the Biden administration's clean energy investments, reflects a growing interest in nuclear energy as a solution to climate change. The facility, with a projected cost of \$300 million, aims to produce TRISO fuel, known for its safety and energy efficiency, for X-energy's reactors. This initiative is expected to create approximately 400 permanent jobs and 475 construction jobs, contributing to the revitalization of the nuclear industry, and aligning with bipartisan support for expanding nuclear power generation.

TRISO fuel, characterized by tiny, coated particles that produce more heat per gram of uranium compared to other fuels, offers enhanced safety features and increased energy efficiency. The fuel's application in small modular reactors promises a reduced carbon footprint for industries globally, facilitating their efforts to meet carbon reduction goals. While traditional nuclear plants like the Watt's Bar plant have a 10-mile evacuation zone, X-energy's small modular reactors only require a 400 -meter safety perimeter. The entire fuel pebble is about the size of a billiard ball. It contains about 18,000 poppy sized "pellets" and It can withstand higher temperatures and can't melt. If one of the poppy-seed sized pellets were to crack, it wouldn't cause the entire fuel pebble to release radioactivity.

2. STATE

2A. The Wetlands Roller-Coaster

As you may recall from our last TCWP newsletter, State lawmaker, Republican Rep. Kevin Vaughn sponsored legislation to roll back protections on over 430,000 acres of wetlands in the state. The legislation aimed to eliminate regulations mandating state approval and mitigation fees for wetland development. Much of the impacted wetlands are in west Tennessee, driven by the forthcoming BlueOval City electric truck plant. Environmental groups, including the Harpeth Conservancy, Sierra Club, Protect Our Aquifers and Southern Environmental Law Center, valiantly urged lawmakers to reject the bill. Their fight resulted in the Senate shelving of this bill in favor of a summer study group. This was short lived. Almost immediately Vaughn resurrected the bill in the House. Thankfully, the bill again died in the Senate and was sent again to the summer study group. We will be keeping our eyes on that summer study group.

2B. TDEC to Receive \$156,120,000 from the Biden Administration's Greenhouse Gas Reduction Fund to Deliver Residential Solar

The U.S. Environmental Protection Agency (EPA) announced the selection of the Tennessee Department of Environment and Conservation to receive \$156,120,000 through the Solar for All (SFA) grant competition as part of the Biden administration's efforts to combat climate change and advance environmental justice. This funding, allocated from the historic \$27 billion Greenhouse Gas Reduction Fund, aims to develop long-lasting solar programs specifically targeting low-income and disadvantaged communities across Tennessee. With a total of \$7 billion invested in solar energy projects nationwide, over 900,000 households in such communities are expected to benefit, resulting in significant annual savings on electric bills and

a cumulative reduction of 30 million metric tons of carbon dioxide equivalent emissions over five years. The Solar for All program not only supports the creation of approximately 200,000 jobs but also aligns with President Biden's Justice40 Initiative, ensuring that 40% of the overall benefits of federal climate and clean energy investments flow to marginalized communities.

Tennessee's SFA Program, one of the 60 selected recipients, will focus on accelerating the deployment of solar infrastructure in various communities throughout the state, offering financial assistance for residential rooftop and community solar projects. In addition to providing technical assistance for project deployment and workforce development opportunities, the program underscores the importance of equitable access to clean energy and the promotion of inclusive economic growth. By investing in local clean energy workforce development programs and engaging with unions, the Solar for All initiative seeks to establish a foundation for a clean energy economy built on strong labor standards and equitable economic opportunities. The program's objectives align with the broader goals of achieving a carbon pollution-free power sector by 2035 and a net-zero emissions economy by 2050, demonstrating a significant step towards addressing climate change while prioritizing the needs of disadvantaged communities.

2C. Duck River is the most Biodiverse Freshwater River in the country and the most Endangered.

The Duck River, meandering through 269 miles of seven Middle Tennessee counties, ranks among the most threatened rivers in the United States, as reported by American Rivers. Pressing issues like population expansion, development, and climate change demand urgent intervention to preserve this vital ecosystem. Serving as a water source for nearly 250,000 Tennesseans, while also supporting industrial and agricultural activities, the river attracts over 150,000 visitors annually for recreational purposes. Despite its scenic status designation and its recognition as one of the world's most biodiverse rivers, ongoing threats persist, including proposed increases in water withdrawals by local utilities.

Concerns over the TDEC'S approval of increased water intake from the Duck River for Columbia Power and Water Systems have prompted residents' fears about the river's well-being. This proposal, escalating the daily water intake by 12 million gallons, has sparked community opposition, with Hickman County residents forming a group called "Hickman County for the Duck." Officials from Columbia Power and Water Systems and the Duck River Agency defend the plan, asserting that ecological modeling predicts minimal ecological impact during drought conditions. Duck River supporters say otherwise. TCWP has a long history, dating back to the 1970's, of supporting the protection of the Duck River.

2D. The Southern Environmental Law Center files a lawsuit to protect the Duck River

Conservation groups, represented by the Southern Environmental Law Center on behalf of the Tennessee Wildlife Federation, have appealed water withdrawal permits granted to local utilities along the Duck River due to concerns over the river's conservation amidst rapid regional growth. The permits, lacking enforceable flow restrictions, fail to adequately safeguard the river's biodiversity and outdoor recreation economy against the proposed substantial increase in water consumption by eight utilities, totaling 73 million gallons per day. Additionally, the permits lack measures to ensure efficient water usage, allowing for substantial leaks that could result in the wastage of millions of gallons of water daily. Local stakeholders, including farmers and outdoor enthusiasts, have joined in opposition to the permits, urging for protective measures to be implemented to preserve the Duck River's ecological integrity for current and future generations, as TDEC prepares to issue final permits to the remaining utilities in the coming months.



2E. EPA derides TVA's analysis for Kingston methane gas plant and pipeline project.

In the March TCWP newsletter, the TVA recently announced plans to construct a methane gas plant in Kingston, necessitating a 122-mile pipeline across six counties, a decision met with criticism from the EPA. The EPA's scrutiny stems from concerns about the environmental review process, which the EPA deemed inadequate, citing issues of transparency and the need to consider lower-cost and safer alternatives like solar energy. Additionally, the EPA highlighted TVA's underestimation of air pollution and greenhouse gas emissions' social costs, emphasizing the disproportionate impact on vulnerable communities and the urgency of addressing methane leaks in the gas supply chain.

Critics, including lawmakers and officials, have condemned TVA's gas plant plans, with concerns raised about its climate impact, community health implications, and economic feasibility. Lawmakers such as Rep. Steve Cohen (TN-9) and Sen. Edward J. Markey (D-Mass) have expressed opposition, echoing EPA's critiques and emphasizing the adverse effects on both the environment and consumers. Despite TVA's assertion of the necessity of the gas plant due to perceived time constraints, critics argue that the utility could have pursued renewable energy alternatives sooner, thereby mitigating the need for environmentally damaging projects like the proposed gas plant in Kingston.

2F. Another SELC lawsuit, this one to challenge the Pipeline to the plant.

The Southern Environmental Law Center, representing the Sierra Club and Appalachian Voices, has initiated legal action against the Federal Energy Regulatory Commission's endorsement of the 32-mile Cumberland Pipeline. This pipeline, designed to transport methane gas, is contested for its detrimental impact on the climate, Tennessee Valley Authority customers, local water sources, and neighboring communities. Despite objections citing potential harm, FERC's approval in January, prompted by pressure from TVA and Tennessee Gas Pipeline, has set the project in motion, drawing criticism for prioritizing corporate interests over public welfare.

Cutting through mostly poor and Black Middle Tennessee communities in Dickson, Houston, and Stewart Counties, the Cumberland Pipeline is intended to supply the Cumberland Gas Plant exclusively. Its construction entails traversing numerous streams, including those feeding into the popular Harpeth River, prompting concerns from environmentalists and local residents. Additionally, the project's association with methane emissions and historical accidents underscores the risks associated with fossil fuel infrastructure. The lawsuit, filed with the United States Court of Appeals for the District of Columbia Circuit, seeks to challenge and nullify FERC's approval, emphasizing the need to prioritize community needs and environmental sustainability over corporate expansion.

2G. TN AG Challenges use of Environmental Racism as a factor in EPA's Pollution Regulation.

Tennessee Attorney General Jonathan Skrmetti has recently aligned with over 20 Republican counterparts in a petition urging the EPA to halt the consideration of race in pollution regulation. This petition, while currently a request, carries significant implications if implemented, potentially stripping away protections for vulnerable communities across the nation and facilitating profit-driven initiatives by companies. At its core, the petition challenges Title VI of the Civil Rights Act of 1964, which prohibits racial discrimination in federally funded programs and activities. By contesting the EPA's authority to address environmental racism through disparate impact discrimination, the petition seeks to eliminate barriers for industries to develop new projects, despite the adverse effects on marginalized communities.

Illustrative examples of environmental INJUSTICE from Tennessee and Louisiana, such as Cancer Alley and communities in south Memphis, underscore the disproportionate burden of pollution borne by predominantly Black and brown neighborhoods. Despite sporadic enforcement of Title VI authority by the EPA, recent legal actions and petitions like this one highlight ongoing struggles against environmental racism and the potential for further erosion of regulatory safeguards under the guise of economic advancement.

3. NATIONAL PARKS

3A. Adaptive Outdoor Rock-Climbing Program, June 15 at the Obed Wild and Scenic River

From NPS: Obed Wild and Scenic River will be conducting an adaptive climbing program on Saturday, June 15. The program will be geared towards people with an amputation or limb difference. The goal is to improve accessibility to climbing for visitors with mobility challenges.

"Our award-winning climbing programs have been highly effective over the last decade in helping visitors to connect to the Obed Wild and Scenic River. With these adaptive climbing events, we are excited to expand these opportunities even further," said Superintendent Niki Stephanie Nicholas.

Group size will be limited to 10 participants and pre-registration is required. For those interested in registering for this free program or would like to learn more, call the visitor center at 423-346-6294.

4. NATIONAL

4A. Biden Administration sets first-ever limits on 'Forever Chemicals' in Drinking Water.

The Biden administration has implemented stringent limits on "forever chemicals," known as PFAS, in drinking water, marking a significant step in public health protection. These chemicals, notorious for their persistence in the environment, have been linked to various health issues, including cancer. The new rule, enforced by the EPA, sets the first-ever national drinking water limits on PFAS, aiming to reduce exposure for approximately 100 million people and prevent numerous illnesses. However, water utilities express concerns over the cost of implementing treatment systems, which they argue will ultimately burden customers financially.

EPA Administrator Michael Regan hails the rule as a landmark action against PFAS, emphasizing its potential to enhance the health and well-being of communities nationwide. The regulation imposes strict limits on several common types of PFAS, requiring water providers to test for and mitigate contamination. While environmental and health advocates applaud the long-awaited measures, they criticize the delay in implementing such limits, asserting that PFAS manufacturers had concealed or downplayed their harmful effects for decades. Despite challenges, the EPA aims to support utilities in compliance efforts through available funds, including settlements from PFAS litigation and provisions in the Bipartisan Infrastructure Law.

4B. Biden Administration moves to make Conservation Equal to Industry on Public Lands.

The Biden administration has finalized a new rule for public land management aimed at elevating conservation to a level equal to industries like oil drilling and grazing on vast government-owned properties. Despite opposition from private industry and Republican governors, the Interior Department's Bureau of Land Management adopted the proposal, which allows public lands to be leased for restoration similar to how oil companies lease land for drilling. Additionally, the rule encourages the designation of more "areas of critical environmental concern" to restrict development, prioritizing land with historical, cultural, or wildlife conservation significance. This move marks a shift away from the bureau's historically industry -friendly policies towards a more balanced approach to managing public lands, according to Interior Secretary Deb Haaland.

The rule's adoption reflects ongoing efforts by the Biden administration to address climate change and balance conservation with economic development on public lands, amidst broader regulatory actions tightening environmental standards and royalties for oil companies.

4C. New EPA Rule says 218 US Chemical Plants must Reduce Toxic Emissions that are likely to cause Cancer.

The EPA has issued a new rule requiring over 200 chemical plants across the United States to reduce toxic emissions, particularly those likely to cause cancer. This rule, aimed at advancing President Biden's environmental justice commitment, specifically targets emissions from chemicals like ethylene oxide and chloroprene. Notably, the rule's implementation follows EPA Administrator Michael Regan's visit to majority-Black neighborhoods outside New Orleans, underscoring the significance of addressing industrial pollution in marginalized communities.

The new rule, complementing a recent regulation targeting ethylene oxide emissions, is expected to reduce toxic air pollutants by over 6,200 tons annually and includes provisions for fence line monitoring to ensure accountability and transparency. The rule signifies a significant step toward safeguarding public health and the environment, particularly in communities disproportionately affected by industrial pollution.

4D. New EPA Rules will Cut Pollution, but will they be upheld?

The U.S. EPA introduced comprehensive regulations targeting pollution from fossil fuel-fired power plants, addressing concerns over air, water, and land contamination, particularly prevalent in coal-burning plants. Environmental advocates hailed the move as a long-overdue measure to alleviate the burden on communities suffering from poor air quality and toxic coal ash waste. Industry representatives and pro-coal groups criticized the regulations, citing potential threats to jobs and electricity reliability, alongside skepticism regarding the efficacy of carbon capture technologies. The rules specifically target coal-fired power plants, aiming to enforce significant reductions in carbon emissions by 2032 and tightening standards for mercury and other hazardous pollutants.

Despite anticipated legal challenges, the EPA crafted the regulations in response to legal constraints outlined by the U.S. Supreme Court, aiming for robust implementation. The rules reflect a broader transition already underway in the electric generation sector, with coal's share dwindling over the years. The regulations present an opportunity for utilities to embrace cleaner and more reliable energy alternatives, shifting away from outdated coal plants. While some industry voices criticize the rules as unrealistic and reliant on unproven technologies, proponents emphasize the health and environmental benefits, signaling a crucial step toward cleaner energy and improved public health.

5. TCWP NEWS

TCWP's Guidelines for Activities

- We ask that you stay home when you are sick.
- We ask that you know what you're capable of, and that you communicate that to the group leader.
- We recommend that you bring plenty of water and snacks.
- We ask that you not bring pets.

[NOTE: Times listed for all events are Eastern time unless specified otherwise.]

5A. Upcoming Events

Devil's Breakfast Table Scour Prairie outing – Saturday, May 25

Participants on this TCWP/TNPS outing will explore the Devil's Breakfast Table area, including a short bushwhack to a small prairie area that is kept open by erosion during flood events. If the prairie is flooded we will spend more time on other places in the same general area. This is a spot to see the federally listed Cumberland rosemary.

Some may find the short bushwhack difficult. They may opt to spend that part of our time in other easily accessible areas. Bring water, lunch, and bug spray.

We'll meet for carpooling in Oak Ridge at the Gold's Gym/Books-a-Million parking lot (at the end close to S. Illinois Avenue, near Salsarita's) in time to leave Oak Ridge at 8:45 a.m. Eastern; or participants can meet the group at the Marathon Gas Station (52 Main St., Crab Orchard) at the Crab Orchard exit (329) off I-40 east of Crossville at 9 a.m. Central (10 a.m. Eastern).

Your RSVP helps with planning and allows notification in case of cancellation. Contact Larry Pounds at 865-703-8516 or at *PoundsL471@aol.com*.

National Trails Day Work on North Ridge Trail – Saturday, June 1

TCWP and the North Ridge Trail maintenance volunteers invite everyone to our 2024 National Trails Day work project on the North Ridge Trail in Oak Ridge. The Orchard Lane access trail is located along a water drainage route. Erosion along the ditch has made the trail difficult to follow. We will work to relocate the first 130 feet of the access trail away from the water route.

Workers will meet at the trail head on Orchard Lane Road at 9 a.m.. Bring drinking water, sunscreen, insect repellent, and good gloves. TCWP will provide some work tools, but feel free to bring any of your personal tools, including grubbing tools such as mattocks, Pulaskis, fire rakes, rogue hoes, and/or McLeods fire tools. After the work is completed, a pizza lunch will be provided at the home of John Jaruzel, 107 Westoverlook Drive, a short drive from the work location.

East Fork Poplar Creek Greenway Cleanup with Clinch Valley Trails Alliance – Saturday, June 8

TCWP and partners Clinch Valley Trails Alliance and Greenways Oak Ridge are sponsoring the fourth annual trash cleanup and hike on the East Fork Poplar Creek Greenway. This wonderful new trail, developed by CVTA and Greenways Oak Ridge, was recently completed along the banks of East Fork Poplar Creek in west Oak Ridge. The trail meanders through a nice riparian woodland along the creek.

This trail is subject to occasional flooding, and help is needed to remove litter left behind by the water. There are also a lot of old tires and other debris that have washed from places upstream. TCWP and CVTA will provide plastic bags and some pickup tools for participants. Please bring gloves and wear mud/water-friendly shoes.

We plan to start at the Jefferson Avenue intersection with the Oak Ridge Turnpike at 9 a.m. We'll cover up to a mile downstream, and possibly some upstream if there is time. Park next to the Boys and Girls Club, a short distance from the Turnpike. For additional information, contact Jimmy Groton at 865-805-9908 or *groton87@comcast.net* with any questions.

Oak Ridge Outdoor Festival – Saturday, June 22

The June 22 Oak Ridge Outdoor Festival, sponsored by Oak Ridge Parks and Recreation, Explore Oak Ridge, and the Clinch Valley trail Alliance, will introduce participants of all ages and abilities to new activities and skill development. TCWP and the Alliance for the Oak Ridge Reservation (AFORR) will be at the Melton Lake Park waterfront near the Oak Ridge Rowing Association to provide information about the new Pellissippi Blueway.

The Festival will include two sessions for all ages and abilities in mountain biking, disc golf, plein air art, pickleball, kayaking, and hiking, one from 9 to 10:15 a.m. and one from 10:45 a.m. to noon. All activities are geared toward beginners and are free, with the exception of kayak rentals. Sign-up will be available on the Parks & Recreation website (<u>https://orrecparks.oakridgetn.org</u>) and linked from the Explore Oak Ridge calendar. Most groups have a limited number of spots, so early signup is encouraged.

Kayak the Clinch River – Saturday, July 20

Join us on Saturday, July 20, for a scenic paddle trip down the Clinch River. The usual kingfishers and great blue herons are sure to be seen, but otters and bald eagles have also been seen while paddling the river. We will be dependent on TVA to release water from Norris Lake before we take off. The flowing water will make for an easy trip, but there are a couple of places we may drag bottom or have to maneuver small rapids, which could result in getting wet... so be prepared.

We will paddle from Miller Island down the TWRA River Access at the bridge on Charles G Seivers Blvd/TN 61. The trip can take between 3 and 4 hours; a shuttle service will be available at the takeout. The shuttle will cost about \$10/person.

Participants should meet at 10:30am at the Miller Island boat ramp on River Road in Norris. Please bring and wear a life jacket whenever on the boat! Be prepared for the sun, and bring a lunch and water. For more information, contact Ken Mayes at *ken.mayes@icloud.com*.

6B. Recent Events

Spring Cedar Barrens Cleanup/Weed Wrangle® – Saturday, March 2

Saturday, March 2, was our first Weed Wrangle[®] of 2023 at the Oak Ridge Cedar Barrens State Natural Area. The weather was a little rainy overnight, but the bad weather cleared out in plenty of time for the event. It started out a little cool but warmed up nicely as the sun came out and the day progressed. Twelve volunteers, including some kids, helped wrangle weeds at the Barrens. We spent most of the morning in the ellipse area, pulling privet, bush honeysuckle, autumn olive, and a few other invasives around the perimeter area. Then we moved over to the triangle area along Fairbanks Road to work on invasive plants in a sunnier spot. Larry Pounds helped us learn about the unique plants growing at the Barrens. Afterwards all volunteers were treated to a nice pizza lunch. *-Jimmy Groton*

Big South Fork River Cleanup – Saturday, March 16

TCWP and Big South Fork NRRA (NPS) co-hosted a river cleanup on March 16 on the Big South Fork of the Cumberland River. Eight kayakers and seven rafters from TCWP, NPS, East Tennessee Whitewater Club, and Tennessee Scenic Rivers Association put in on the river just below the Pine Creek confluence and ran the "canyon section" down to Leatherwood Ford. Flow was on the high side of moderate (2300 cfs), so even though the group put in below the "Big Three" rapids, there was plenty of exciting whitewater to run in addition to plenty of trash and tires to pick up. This is not an easy place to pick up trash, and requires boaters with whitewater experience and the energy to get out of their boats often.

The bounty picked up by the volunteers included lots of small trash, most of a plastic port-o-john, and dozens of tires! After about a mile and a half, the group stopped above O&W Bridge and hauled the first load of trash (including about 40 tires) to the road, then returned to the river for more. By the time they reached Leatherwood Ford, they had filled the five rafts again, including another 50 tires. It was a blast working side-by-side with the Obed rangers to make one of the most beautiful rivers in the area even more beautiful.

A big thanks to several ETWC members and to TSRA member Clark Annis, who took some great pictures. -Mark Bevelheimer

Garlic Mustard Pull and Wildflower Hike – Saturday, April 13

This year's Garlic Mustard Pull was a huge success. More than 20 volunteers were present on a beautiful Saturday. Altogether 12 garbage bags of garlic mustard were collected.

Following a couple hours of work, a short hike along the Wildflower Greenway led by Aubrey Sebatian and Jamie Herold delighted the group by identifying more than 20 different wildflowers in bloom, including dwarf larkspur, Jack-in-the-Pulpit, three varieties of trillium, and showy orchids. *-Ken Mayes*

Frozen Head State Park Wildflower Walk – Saturday, April 13

Once again TCWP and the Tennessee Native Plant Society (TNPS) joined together to enjoy nature and companionship at Frozen Head. By starting early (8:30) we were able to find parking at the Panther Branch trail head. In previous years we

have had to avoid this superb wildflower trail because of the parking.

The weather and the turnout (17) were good. We hit the peak displays for dwarf ginseng (*Panaxtrifolius*), yellow mandarin (*Prosartes lanuginosa*), spotted mandarin (*Prosartes maculatum*), northern red trillium (*Trillium erectum*), and large-flowered bellwort (*Uvularia grandiflora*). We turned back at a lovely 30-foot cascade down shale ledges. *-Larry Pounds*

Asian Silver Carp on Tennessee Waterways - Tuesday, April 16

On April 16 Tim Joseph and Dirk Van Hoesen of the Watts Barr Ecology and Fishery Council gave a presentation cosponsored by TCWP and the UT Arboretum Society about the threat invasive silver carp pose to our upper East Tennessee lakes and watershed and how the public can be involved in the public comment process in June 2024. The presentation emphasized the need to prevent the carp moving into our area, due to the devastation they have created in other areas of the country where fishing and tourism have been destroyed.

Attendance at this in-person presentation at the Arboretum Auditorium was impacted due to a severe traffic accident on Pellissippi Parkway; about 25 were in attendance. A recording of the program will be made available in late May. For more information on this topic and how to be involved with the public comment period, please contact Pandora Vreeland at *buckrunne@hotmail.com.* -*Michelle Campanis*

Head of Sequatchie and Devilstep Hollow – Saturday, April 20

In another joint outing with TCWP and TNPS, 15 of us took to the trails around the new headquarters for Cumberland Trail State Park. This state park is rather linear, running along the 300-mile-long Cumberland Trail (CT). Southbound from here on the CT, the next trail head is 16 miles away, at Stinging Fork Falls.

First, we visited Devilstep Hollow, a large cliff-sided sinkhole with a cave leading into darkness at its bottom. The cave is famous for its ancient Native American art. Not surprisingly, the cave is closed to the public. The upper part of the sink was covered with wild geraniums (*Geranium maculata*).

After viewing the huge spring that is the start of the Sequatchie River, we followed the CT. The wild hyacinths (*Camassia scilloides*), recurved trilliums (*Trillium recurvatum*) and false garlics (*Nothoscordum bivalve*) were outstanding, but the bluebells (*Mertensia virginica*) were almost all in fruit. Though not striking, green violet (*Hybanthus concolor*) was of interest as a strange violet. *-Larry Pounds*

Paved Greenway Outing - Saturday, April 27

This event was sponsored by TWCP and TNPS. Seven of us walked on the greenway along Haw Ridge in Oak Ridge. Appropriately for the ridge name, the native shrub or small tree rusty blackhaw was in flower, along with some invasive nonnative shrubs. Blooming native herbs included corn salad (*Valerianella radiate*), wild geranium (*Geranium maculatum*), and blue star (*Amsonia tabernaemontana*). Not in flower were green dragon (*Arisaema dracontium*), Canada lily (*Lilium canadense*) and spreading false foxglove (*Aureolaria patula*).

As has been the case this time and on other paved surface outings, we did not have any participants who required the pavement. Of course, people can enjoy this type of outing even if they don't need an even surface. *-Larry Pounds*

6. DID YOU KNOW?

6A. From Board Member, Margaret Cumberland comes a new way to do ecology:

NEON: A New Way to Do Ecology

Tucked away off Fairbanks Road on the East side of Oak Ridge, a small group of field ecologists are painstakingly collecting data from the ecosystem on plants, animals, water, the atmosphere, soils, and more. These scientists are working with support facilities all over the country as part of a network that provides expert ecological data for everyone. With 81 field sites from Puerto Rico to Hawaii to Alaska, the National Ecological Observatory Network (NEON) collects ecological data and

samples to help monitor ecosystems across the United States, with a mission of understanding how those ecosystems are changing.

The idea for NEON started with a group of ecologists and biologists in 1999 who dreamed up a nation-wide network to address continental-scale ecological questions. In 2011, the National Science Foundation (NSF) funded a grant to start building this network, designed to last 30 years. <u>Battelle</u> was contracted to complete construction on and manage operations of NEON in 2016. The network was officially completed in 2019, with the last field site (PUUM in Hawaii) coming fully online.

NEON partitions the United States into 20 Domains based on ecological characteristics. Each Domain typically has 2-6 field sites that represent the ecology of the Domain as a whole. The terrestrial and aquatic field sites in Oak Ridge National Laboratory, Great Smoky Mountains National Park, and Mountain Lake Biological Station in southwest Virginia make up the Appalachian and Cumberland Plateau Domain (Domain 07).

The methods and protocols of data and sample collection are standardized across the Observatory, so that all data are comparable to each other. These local NEON scientists are measuring and collecting samples in the same way the NEON technicians do at every other site. In this way, researchers can make use of truly continental-scale datasets. These protocols are designed and updated through ongoing input from external, expert scientists to ensure NEON is continuing to provide the most useful information of greatest need to the larger scientific community. All the data collected are freely available on the data portal for anyone to download and work with. NEON even provides data skills training resources to researchers just starting to dip their toes in "big data."

It would take pages and pages to talk about all the types of data and samples NEON collects; however, they can be grouped into a few main broad categories: Automated Instruments, Observational Sampling, and Airborne Remote Sensing. Automated Instruments at each field site constantly collect atmospheric, soil, and aquatic data from a variety of sensors, and Observational Sampling involves hundreds of technicians every year out in the field measuring and collecting samples on land and in water. In addition, the Airborne Remote Sensing is done by low-flying airplanes carrying a high-resolution camera, hyperspectrometer, and lidar system flying over field sites to monitor vegetation, landscape characteristics, and even ecosystem disturbance such as from wildfires.

While NEON is all about free and open data, it also has many other resources to offer the scientific community. <u>NEON's</u> <u>Biorepository</u>, hosted by Arizona State University (ASU), holds nearly a half million samples including beetles, soil, leaves, water, and a lot more. These samples can be loaned to or used by researchers for study, and vouchers are digitized to be viewed online.

Other resources are educational or informational, and include a wide range of data tutorials for those less familiar with coding languages. Data Skills workshops are held regularly to teach how to access and interpret NEON data. NEON's YouTube page has nearly 200 videos which describe common data concepts, explain a scientific topic, or give beautiful tours of many NEON field sites.

The physical towers, sensors, and staff time are also a resource that NEON provides for external scientists. NEON's <u>Assignable Assets program</u> is one of the more exciting (and expanding) parts of the network. Researchers can utilize NEON's infrastructure to conduct or complement their own research. This can be as simple as getting technicians in several Domains to add <u>iButtons to small mammal traps</u> to measure temperature, take pictures of firefly larvae found in beetle trap bycatch, or <u>add a new innovative sensor</u> to the tower to test its accuracy.

In a similar vein, the local NEON Domain connected with TCWP in 2021 as part of a local community project, working with the American Geophysical Union's Thriving Earth Exchange (TEX) program. With support from NEON, in 2022 local scientists conducted surveys within the Oak Ridge Barrens State Natural Area. In the three 400-meter square plots they found over 160 plants species of which 7 are uncommon G4 species, and one is an imperiled G2 species.

As NEON's data grows, the multitude of ways people use it grows as well. In 2024, NEON enters its 5th year of full operations, with at least 25 more to go. We can only guess what local- or continental-scale discoveries will come next from such collaborations between dedicated scientists. - *Margaret Cumberland*. www.neonscience.org.

May 2024

TENNESSEE CITIZENS FOR WILDERNESS PLANNING

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UPCOMING EVENTS

- May 25 Devil's Breakfast Table Scour Prairie Outing
- • June 1 National Trails Day Work on North Ridge Trail
- • June 8 East Fork Poplar Creek Greenway Cleanup
- June 22 Oak Ridge Outdoor Festival
- July 20 Kayak the Clinch River

These events are subject to cancellation. Call ahead to verify the event will occur.

Tennessee Citizens of Wilderness Planning (TCWP)

The mission of TCWP is to: Preserve wild places and waters through protection, advocacy, stewardship, and education.

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