# 2023 Year in Review

TVA Stewardship Successes



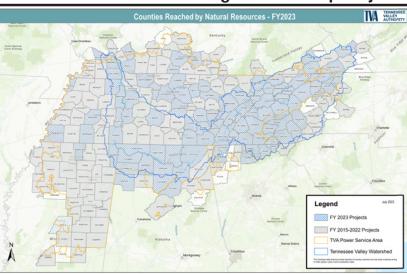
TENNESSEE VALLEY AUTHORITY

### Welcome to **Our Progress Report**

Thank you for taking time to look into what great natural resource stewardship work is being accomplished at TVA. It is important to reflect back each year on the accomplishments of dedicated staff, partners, and volunteers. This past year's work continues to showcase the positive impact of all our efforts.

TVA's environmental stewardship mission of managing the Tennessee River system and its public lands started in 1933 and is carried forward with our emphasis on areas such as biodiversity (including pollinators), and environmental justice. We continue to adapt to a more virtual work environment, placing emphasis in 2023 on ways to evolve how we work in order to better serve the public and the natural resources we steward.

**Counties We've Served Through Stewardship Projects** 



Public lands continued to see a high volume of visitors, and that really makes it clear just how valuable this land is to the people of the Tennessee Valley and to those who come here for recreation and relaxation. Natural Resources issued approximately 1,600 Section 26a permits, had over 250 positive news stories, and 1.89 million impressions on social media, sharing the good work happening in communities. (Follow us on social media!)

Our Public Land Information Center answered over 10.600 calls or emails and we launched a new system that supports submitting Section 26a applications online. Other highlights included over 86 miles of boundary remarked; attendance at over 200 community events; more than 5,400 volunteers helping maintain trails, clean up trash; and so much more.

Let me take a moment to thank someone many of you know and have worked with, Melinda Watson, who has been a vital part of our Natural Resources mission and has built many partnerships and alliances over her 32-year career that will continue to help care for the Tennessee Valley. Please join me in congratulating her on her retirement!

I know I speak for the entire staff when I say how thankful we are for our wonderful partners who help us in our work. When communities, agencies, and volunteers come together, we can do so much more than any of us can do alone. As we look forward to all that 2024 will entail, we are proud to look back for a moment and share this progress report with you.

Rebecca Hayden **Director, TVA Natural Resources** 





**Public Land** 



650,000 Acres of Reservoir **Surface Water** 



11,000 Miles of Public







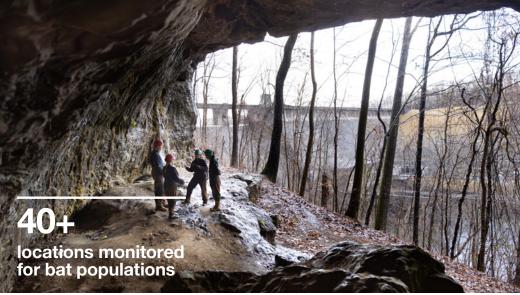
Shoreline



\$12 Billion Economic **Benefit From Recreational Opportunities** 















### Reservoir Lands Planning

Our Natural Resources group at TVA manages 293,000 acres of public lands across the Tennessee Valley. As a federal agency, we hold these lands in trust for you, the public. We use our reservoir lands planning process to create plans for each reservoir area, allocating parcels into one of seven zones.

The lands planning process provides a consistent approach to balancing shoreline development, recreation, natural and cultural resource management, and other demands by applying a systematic methodology to identify the most suitable land uses. Public lands are used for public parks, industrial development, commercial recreation, residential development, tourism, forest and wildlife management areas, and much more. Reservoir land management plans (RLMP) are expected to have a lifespan of approximately 20 years and help guide TVA's land-use decisions over that time.

This year we started work on the Tims Ford RLMP. Once this update is well underway, we anticipate the next RLMP update to be Norris Reservoir. These will both be multi-year projects involving public engagement and environmental review.

### Section 26a Permitting/Land Use

TVA's goal is to protect land and shoreline resources while supporting access to public lands and waters according to the purposes laid out in Section 26a of the TVA Act of 1933. The lands and shorelines along TVA reservoirs are special places, and Section 26a and land-use processes help ensure they stay that way.



**1,594** Section 26a permits

issued

**1,570** environmental reviews conducted

**111** land-use agreements issued

### Public Land Protection

TVA protects the public land under its care by maintaining clear boundaries, coordinating cleanups, assessing condition of parcels, and managing access sites to prevent damage to cultural and natural resources. TVA works all year round, in all temperatures, to monitor and maintain our public parcels for you to enjoy.

The saying, "many hands make light work" is absolutely true. We value Powerful Partnerships—a core emphasis at TVA because together, we can accomplish so much more than we can individually.

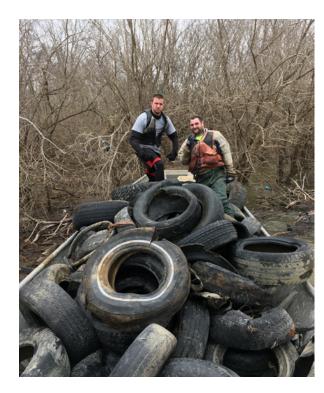
#### In 2023, TVA:

- Performed 744 maintenance tasks on TVA properties.
- Evaluated 2,960 natural resources assets on 15 reservoirs.
- Made improvements to access-control measures to prevent illegal dumping, removed trash, repaired roads, replaced signage, resurfaced parking areas, and repaired trail features.
- Sponsored partner organizations in 74 cleanups in numerous counties across seven states.
- Relaunched "Public Lands are in Your Hands" outreach campaign to empower the public in protecting public lands

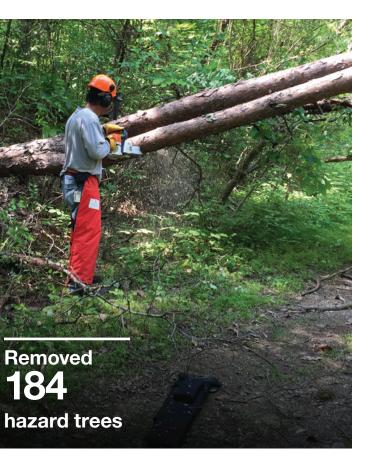




Marked more than 86 miles of boundary to help identify public land available for recreation









### Land and Habitat Stewardship

TVA manages its public lands and natural resources to protect and improve a valuable diversity of habitats, including native plant communities. TVA's management of these lands supports hunting, fishing, camping, hiking, biking, photography, wildlife watching, and much more.

#### Completed 158 projects on 26 TVA reservoirs

Our objectives and how we met them:

- 1. Improve protection and monitoring of sensitive resources on TVA land.
- Surveyed 15 habitat protection areas and 22 small wild areas on 15 reservoirs.
- 2. Enhance biological diversity and wildlife benefits
- Seven projects completed.
- Inspected 104,811 feet of levee, installed access control measures, and maintained vegetation on dewatering areas.
- 3. Improve forest health and associated ecological benefits.
- Used prescribed fire, planted shortleaf pine, addressed storm damage, and researched partnerships to improve forest health and ecological benefits.
- 4. Improve interagency relationships and partnership efforts toward mutual stewardship goals.
- Engaged in six meetings and events associated with conservation planning.



### TVA also partnered to support research efforts across the Valley:

- Bat research
- Conducted gray bat emergence counts and winter cave surveys.
- Partnered with state agencies to conduct research on tricolored, Indiana, northern long-eared, and little brown bats.
- Partnered with the Natural Resources Conservation Service to conduct historical soil studies to learn about past vegetation, fire history, and climate.
- Partnered with the University of Tennessee- Knoxville for research on native plant communities and timing of prescribed fire effects.



#### Polinators

Pollinators play a crucial role in ecosystems and agriculture by facilitiating the reproduction of flowering plants, which in turn sustains biodiversity, food security, and ecosystem stability. TVA is playing an important role in promoting the importance of pollinators and managing our properties and transmission line rights-of-way in a way that encourages native wildflowers and grasses.







### Nuisance and Invasive Species Management

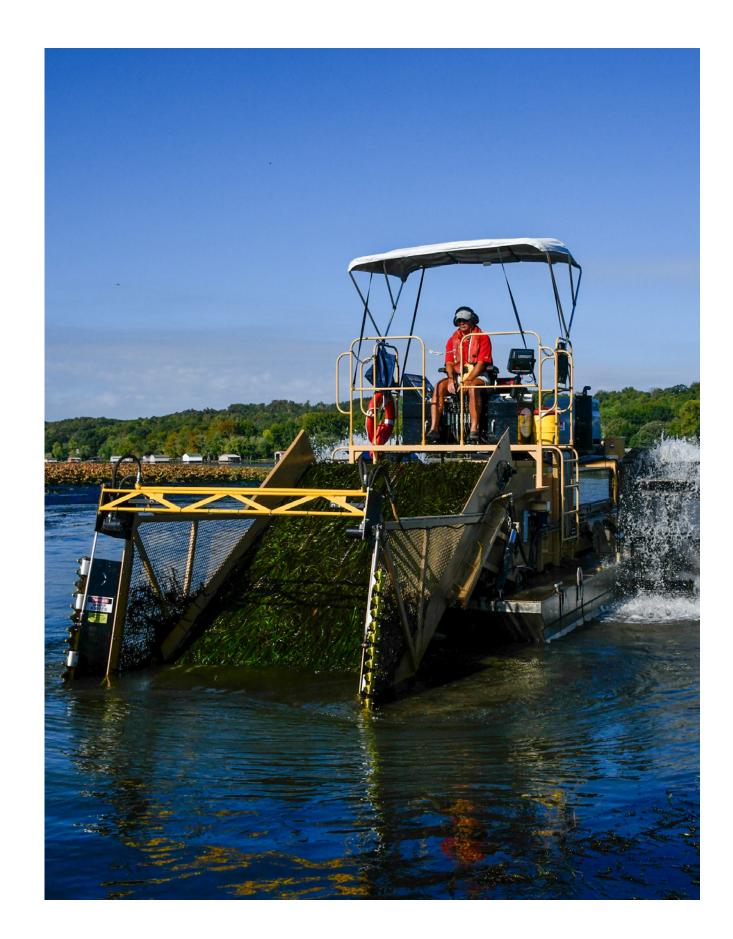
Nuisance and invasive species of all kinds represent a significant threat to the Tennessee Valley's natural resources. Some species of plants or animals may be considered acceptable in some circumstances but undesirable in others. Nonnative species must be controlled because they can outcompete native species and impact habitats, ecosystems, infrastructure, and recreational users.

#### On Land

- This year, TVA treated and removed kudzu bush honeysuckle and tree of heaven on recreation sites at Melton Hill and South Holston Reservoirs.
- Implemented phase one of the East Lakeshore vegetation improvement plan on Tellico Reservoir to promote native species.
- Continued monitoring and research on osprey behavior to deter nesting on transmission lines.

#### **On Water**

- TVA managed invasive aquatic plants on over 1,516 acres of water, focusing especially on Pickwick, Guntersville, Nickajack, Chickamauga, and Watts Bar Reservoirs.
- and Watts Bar Reservoirs.
  Removed over 120,000 cubic yards of eelgrass debris on Guntersville Reservoir alone and continue to work with state agencies on strategic approaches to management of eelgrass



#### 2023 YEAR IN REVIEW | NUISANCE AND INVASIVE SPECIES MANAGEMENT

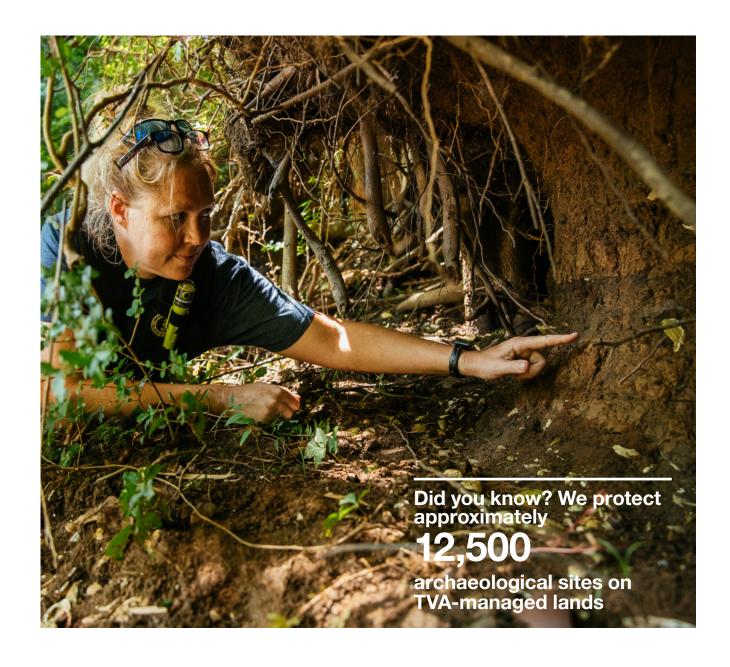
### Cultural Resource Management

TVA has a rich history in cultural resource management that goes back to its establishment in 1933. The Tennessee Valley is rich in cultural resources, from ancient indigenous tribes to early European settlers to the Civil War to the homesteads of the early 20th century. Artifacts of the past still can be found on the over 293,000 acres of land and 470,000 acres of inundated land.

As a federal agency, TVA is responsible for identifying, managing, and protecting cultural resources that are found on its property or affected by its actions.

#### This year, TVA:

- TVA completed repatriation of all known Native American ancestors and funerary objects in TVA's control.
- Completed 185 acres of archaeological inventory and monitored 58 sites.
- Issued seven Archaeological Resources Protection
   Act permits.
- Hosted a face-to-face workshop with tribes in May 2023.
- Continued work on inventory of historic buildings and structures.



- Stabilized three archaeological sites and capped a site that was being impacted by looting.
- Participated in 33 outreach events, partnering with tribes to plant native vegetation.
- Continued to support the McClung Museum of Natural History and Culture and the University of Tennessee-Knoxville, in the preparation of Native American Graves Protection and Repatriation Act (NAGPRA) cultural items for repatriation and reburial. We also assist multiple Native American tribes in the reburial of cultural items.

### Water Resources **Stewardship**

Clean water is vitally important-for people, plants, and animals. Year after year, we monitor water quality and aquatic life throughout the Tennessee River system and partner with communities, industries, agencies, and organizations to preserve and enhance aquatic health and biodiversity.

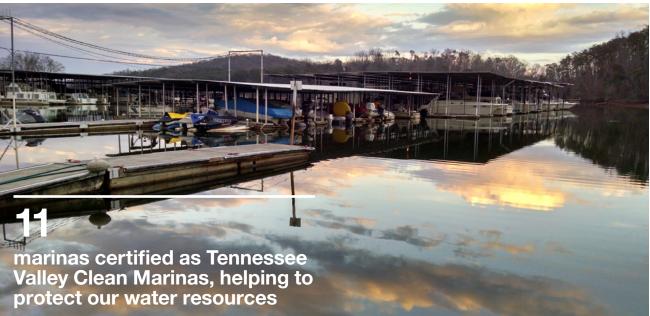
The Tennessee River watershed encompasses parts of seven states in the Southeast and comprises about 41,000 square miles. It is one of the most biologically diverse watersheds in all of North America. Hundreds of species call this region their home.

How do we care for the water resources we manage? Our work includes monitoring aquatic habitats, partnering to establish conservation easements and riparian buffers, installing in-stream habitat, stabilizing stream banks, and providing education on water quality to students across our seven-state region.



#### This year, TVA:

- Partnered with state agencies, the University of Illinois, and the University of the Highlands to sample for microplastics and research the dynamics of microplastics in the Tennessee River.
- Worked with The Nature Conservancy and the U.S. Fish and Wildlife Service to establish 70 acres of riparian buffer along the Paint Rock River in north Alabama.
- Partnered with the North Carolina Wildlife Resources Commission and others to pilot the establishment of a snorkel trail.
- Attended 33 outreach events highlighting the importance of water quality, reaching approximately 173,000 people with water quality education.
- Monitored approximately 84 stream sites for aquatic health.
- Actively participated in the Tennessee Nutrient Strategy Team and partnered with the University of Tennessee-Knoxville and the Watershed Association of the Tellico Reservoir to conduct a nutrient and algae study on Tellico Reservoir.
- Certified two new marinas in 2023, making a total of 46 certified Clean Marinas on TVA reservoirs. The Clean Marina Program helps protect water resources through implementation of best practices for fuel management, septic storage and removal, and sediment control.
- Continued conducting stream and river biological monitoring. The primary goal is to assess fish and benthic macroinvertebrate communities to determine stream health across the Tennessee River watershed.



#### 2023 YEAR IN REVIEW | WATER RESOURCES STEWARDSHIP





### Recreation



As part of its mission of service, TVA manages its public lands and waters to support recreation so that the Tennessee Valley remains one of the best places to live, work, and play. From primitive hiking trails to fully developed commercial campgrounds, TVA works to balance the resources under its care to provide recreational opportunities for everyone. It's our ongoing responsibility to maintain, repair, and improve our TVA dam reservations and day-use areas so you can enjoy them. This includes:

- Repaired and replaced: walkways, ramps, docks, piers, pavilions, bathrooms, parking areas, picnic tables, and trash cans.
- Picked up litter, mowed grass, repaired playgrounds, and installed solar lighting.

#### Camping

 TVA's six dam reservation campgrounds are managed by Vista Recreation. TVA performed improvements at Pickwick, Melton Hill, Cherokee, Watauga, and Douglas Campgrounds.

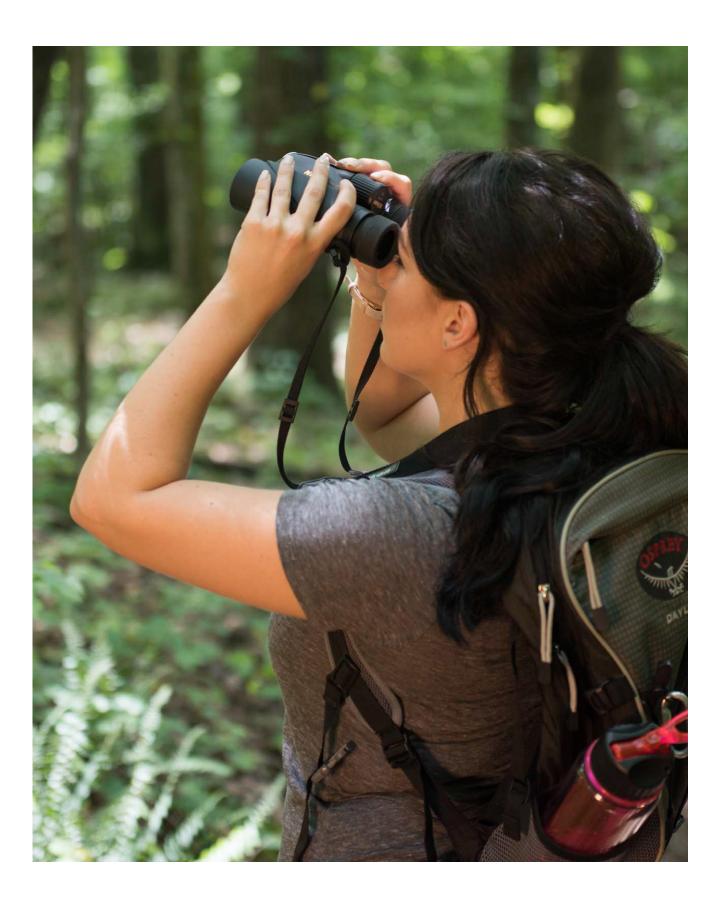
#### This year, TVA:

- Installed two bridges on the Americans With Disabilities Act-compliant South Holston Tailwater Trail to allow for future expansion of the trail.
- Replaced a courtesy dock on the Chickamauga Dam Reservation.
- Widened a one-lane road on Wheeler Dam Reservation to allow for larger SUV's and trucks with trailers better and safer access.
- Installed a new bathhouse at Melton Hill Campground.
- Partnered with Clay County, North Carolina, to update and maintain Sweetwater Park on Hiwassee River.
- Partnered with Catalyst Sports and Legacy Parks Foundation to provide better accessibility and opportunities for quality adaptive outdoor recreation.









## Ecotourism

Did you come visit us this year and experience the beauty and diversity of the Tennessee Valley? TVA partners with state agencies, organizations, and municipalities to provide first class recreational opportunities and support the booming industry of ecotourism.

• For ideas on where to travel: We are long-time sponsors of the National Geographic Tennessee River Valley (TRV) MapGuide initiative (exploretrv.org). The MapGuide showcases the beauty and wonder of our natural resources and places to visit.

• With 293,000 acres of public land, 11,000 miles of shoreline, and 180+ miles of trails, we are always replacing or adding signs and kiosks that help you find your way and learn about what is around you.

#### Tennessee RiverLine

TVA is a founding member and principle partner of the Tennessee RiverLine partnership, whose goal is to develop a 652-mile water trail along the Tennessee River, connecting Knoxville, Tennessee, to Paducah, Kentucky. For more information visit www.tnriverline.org.









### Public Outreach and Information

TVA provides environmental education, volunteer opportunities, and support to engage communities in caring for the environment. Through River Neighbors and other e-newsletters, social media, web-based interactive tools, publications, and TVA's Public Land Information Center, we connect with you.

We had an amazing year with more than 10,400 children participating in our hands-on EarthEcho Water Challenge Program, in which fourth through sixth graders became scientists for a day, testing and studying water from creeks, lakes, or rivers in their area. We were also able to make an impact in even more schools through our virtual water quality educational videos. • TVA-sponsored the 2023 Tennessee Statewide Design Challenge where 7,872 students and 109 teachers participated in competitions in the STEM field. TVA also co-sponsored the Tennessee Stem Innovation Network's Sparking Curiosity teacher training event in which over 600 educators learned about the World Water Monitoring Program, I Science Program, Earth Echo and the TVA STEM Ready.





Adopt-a-Trail volunteers spent 200+ hours at 30 locations across the Valley

56

Engaged with **1,200+** children through a

total of 74 outreach and environmental education programs across the Valley

#### **Public Land Information Center (PLIC)**

They answer calls, emails, concerns and questions all day long. The PLIC was established to be an easy point of contact for external stakeholders to receive consistent information. Each year they handle between 10,000 to 12,000 inquiries. You can reach the PLIC at 800-882-5263 or plic@tva.gov.







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