



# 2020

## YEAR IN REVIEW

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TVA STEWARDSHIP SUCCESSES



# WELCOME TO OUR PROGRESS REPORT

What a year this has been—full of unusual challenges and new ways of doing things. This year, as the COVID-19 pandemic worsened, we all experienced changes in our daily lives. We often talk about our stewardship mission of managing the Tennessee River and the public lands along it for multiple benefits. And TVA's overarching mission of service is the foundation for that work and so much more. It is our mission of service that compelled us to take steps to reduce risk to our staff, community members and visitors. Some of these steps included closing recreation facilities to try to limit large gatherings, as recommended by health experts. We also shifted from our usual in-person events to connecting with our partners in other ways. We realize these decisions were not always popular, but we felt it was the right thing to do.

The Natural Resources group carries out that mission by protecting and enhancing the Valley's resources; managing and caring for recreational facilities, contracts and permits; crafting strategic policies to

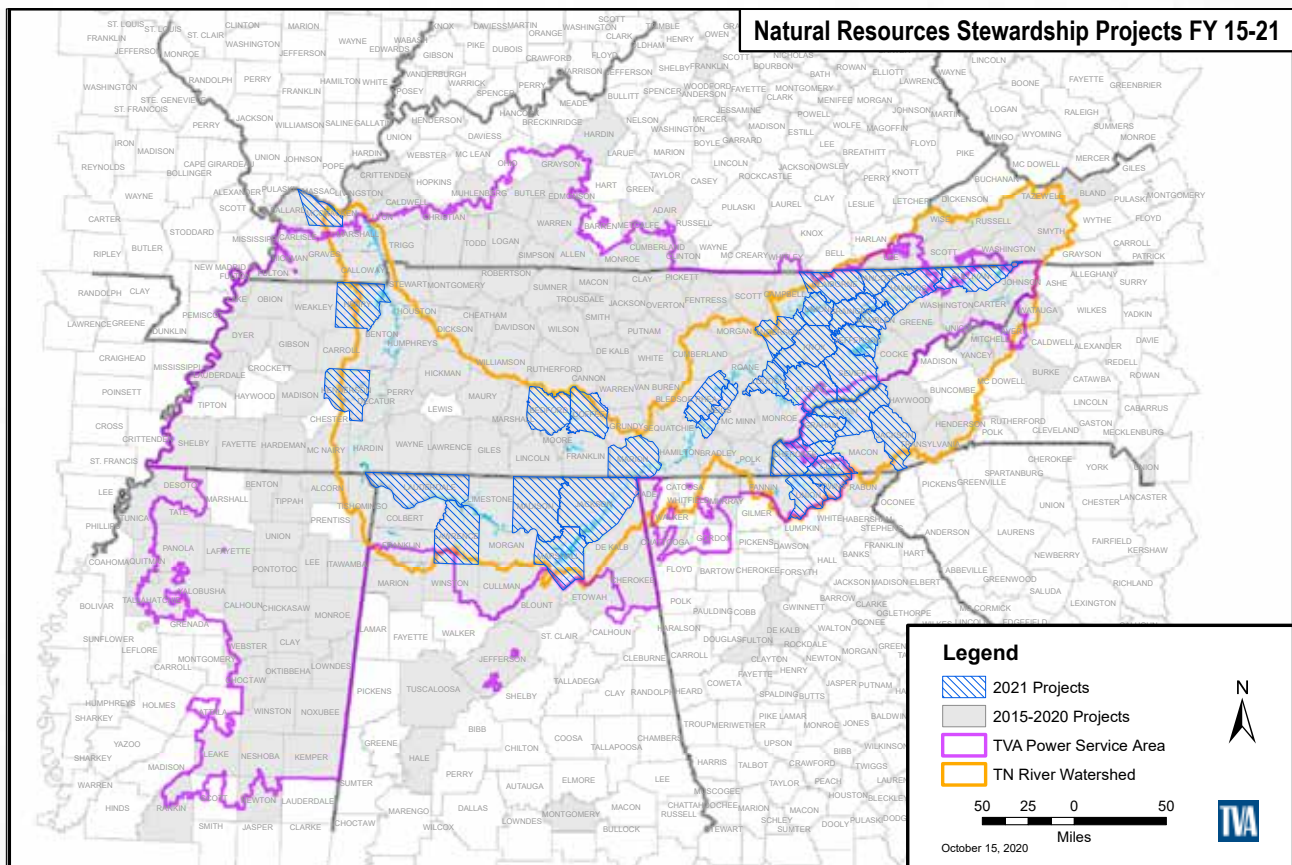
balance competing demands; and helping you by responding to your questions.

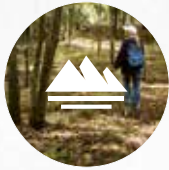
Despite unprecedented and unusual conditions in 2020, we implemented more than 245 projects, responded to approximately 10,000 requests for information, assessed 10,000 acres of land and completed more than 1,300 permits. We saw record numbers of visitors to our public land too, as people were anxious to get outdoors, enjoy nature and safely get some exercise on our miles of trails.

We are thankful to work with so many great community partners and collaborators from local, state and federal agencies, nongovernmental organizations, and educators. As we look forward to continuing our work with new and ongoing projects, we are proud to share this progress report with you.

Bucky Edmondson  
Director, TVA Natural Resources

## COUNTIES WE'VE SERVED THROUGH STEWARDSHIP PROJECTS

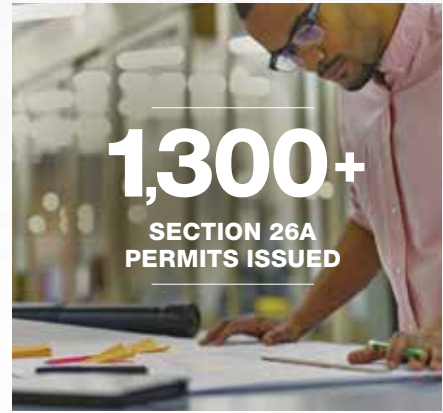




**293,000**  
ACRES OF  
PUBLIC LAND



**5,000**  
ACRES OF FOREST  
LAND MANAGED



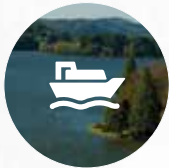
**1,300+**  
SECTION 26A  
PERMITS ISSUED



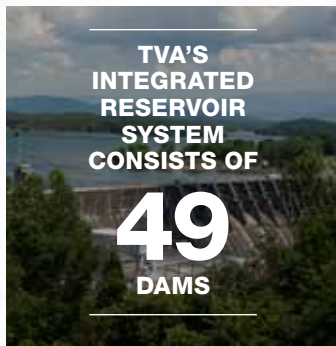
**11,000**  
MILES OF  
PUBLIC  
SHORELINE



WE CARRIED OUT  
**245+**  
STEWARDSHIP PROJECTS  
TO ENHANCE NATURAL  
RESOURCES AND PROMOTE  
ECOTOURISM



**650,000**  
ACRES OF  
RESERVOIR  
SURFACE WATER



TVA'S  
INTEGRATED  
RESERVOIR  
SYSTEM  
CONSISTS OF  
**49**  
DAMS



**1,000+**  
GALLONS OF  
COFFEE CONSUMED



TVA OWNS  
**100**  
RECREATION  
FACILITIES



**\$12 billion**  
ECONOMIC  
BENEFIT FROM  
RECREATIONAL  
OPPORTUNITIES



**10,000+**  
ACRES OF  
GRASSLANDS  
MANAGED



**140,000+**  
BATS STUDIED

# 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.



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Public lands are used for parks, industrial development, commercial recreation, residential development, tourism, forest and wildlife management areas and much more.

This year's specific initiatives included revising reservoir land management plans for Tellico and Watts Bar reservoirs to ensure land allocations are balanced for the best use of public lands. Watts Bar is expected to be completed in FY21, and Tellico is expected to be completed in FY22.

We updated TVA.com with a new format, creating individual webpages and updating allocation change information for each reservoir. Allocation changes were also updated in our interactive viewer map along with the addition of a new line layer showing Zone 1 (Non-TVA Shoreland) shoreline.

**Check it out here! [www.tva.com/rimp](http://www.tva.com/rimp)**

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## SECTION 26A PERMITTING AND 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.

This year, to help applicants more easily request their permits online rather than in person, TVA adapted our process in response to COVID-19 restrictions. We improved the application process, posted a video to help guide you through it and updated 175 facility drawings to help make applying easier to understand.



**1,500+**

ENVIRONMENTAL  
REVIEWS  
CONDUCTED



**1,300+**

SECTION 26A  
PERMITS ISSUED

**126**

LAND-USE  
AGREEMENTS  
ISSUED

# PUBLIC LAND PROTECTION

TVA protects the public land under its care by maintaining clear boundaries, coordinating cleanups, assessing parcels and managing access sites to prevent damage to cultural and natural resources.



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## TVA had a busy year in 2020:

- Performed more than 1,000 maintenance tasks on 72,549 acres, and conducted asset inventory on 369 parcels of land.
- 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 71 cleanups in 40 counties.
  - One example of great partnerships coming together to protect the waterways is TVA's work with the Clinch River StreamSweepers. They organized cleanup efforts and created an anti-dumping outreach campaign highlighting the effect of trash on aquatic ecology and human health.
  - Their efforts resulted in 13.2 miles of riverbed and 26.4 miles of bank cleaned, and 17.6 tons of tires and 7.1 tons of trash collected.



MARKED  
MORE THAN  
**153**

MILES OF  
BOUNDARY  
TO HELP  
THE PUBLIC  
EASILY FIND  
PUBLIC LAND  
AVAILABLE FOR  
RECREATION

STABILIZED  
**1,450**  
FEET OF SHORELINE

REMOVED  
**221**  
HAZARD TREES

REMOVED  
**1,200**  
TONS OF LITTER

WE PERFORM  
ASSESSMENTS ON  
**10,000+**  
ACRES OF PUBLIC  
LAND EACH YEAR



# LAND AND HABITAT STEWARDSHIP

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



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We increased our efforts to protect pollinators this year, working to restore and protect natural vegetation that encourages bees, butterflies and other insects that are essential to the ecosystem. This included prepping and planting acres of habitat in the strips of land under our transmission lines.

## **TVA managed and improved its public lands by:**

- Conducting wildlife habitat work on 7,927 acres of TVA public lands
- Maintaining wildlife openings within 1,631 acres of grassland
- Implementing habitat enhancement projects in 17 locations that supported threatened and endangered species
- Enhancing 351 acres of forest
- Conducting habitat monitoring of federal and state listed plant species at 16 Habitat Protection Areas

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## **Planting trees**

In partnership with the University of Tennessee's tree improvement program, we continued to work in the re-establishment of Norris-area seed orchards to produce locally adapted tree seedlings for planting and reforestation efforts in the East Region.

**Reforestation efforts that go back to the 1930s have gotten a big boost and new technology from a partnership with the University of Tennessee. Careful grafting of selected trees, replanting trees, and an extensive seed orchard are carrying this program to future generations.**



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

**Salamander love**

This year TVA has continued its research with Virginia Tech and Virginia Highlands Community College to protect salamander populations near the South Holston Dam Reservation and Osceola Island. Previous work included the installation of a migration tunnel for safety. The salamander population has increased in the area since tunnel installation, so we are planning a second tunnel to be installed 2021. TVA received an award from the Tennessee Herpetological Society for salamander conservation work.



**Counting bats**

TVA is working with the University of Tennessee to better understand tri-colored bats' summer roosting and foraging habits by conducting surveys at selected locations.



**Relocating ospreys**

TVA and its partners banded six juvenile ospreys and monitored the relocated nest sites to reduce impacts to the birds and power operations near Guntersville, Melton Hill and Watts Bar reservoirs.



**65+**

ACRES OF NEW POLLINATOR HABITAT PLANTED



**60,000**

TREES PLANTED

**2,291**

ACRES GRASSLAND MANAGED

# NUISANCE AND INVASIVE SPECIES MANAGEMENT

Nuisance and invasive species of all kinds represent one of the most significant threats to the Tennessee Valley's natural resources. Some species of plants or animals may be considered acceptable in some circumstances but undesirable in others. Non-native species must be controlled because they will often take advantage of a new climate and overflourish, crowding out native species.



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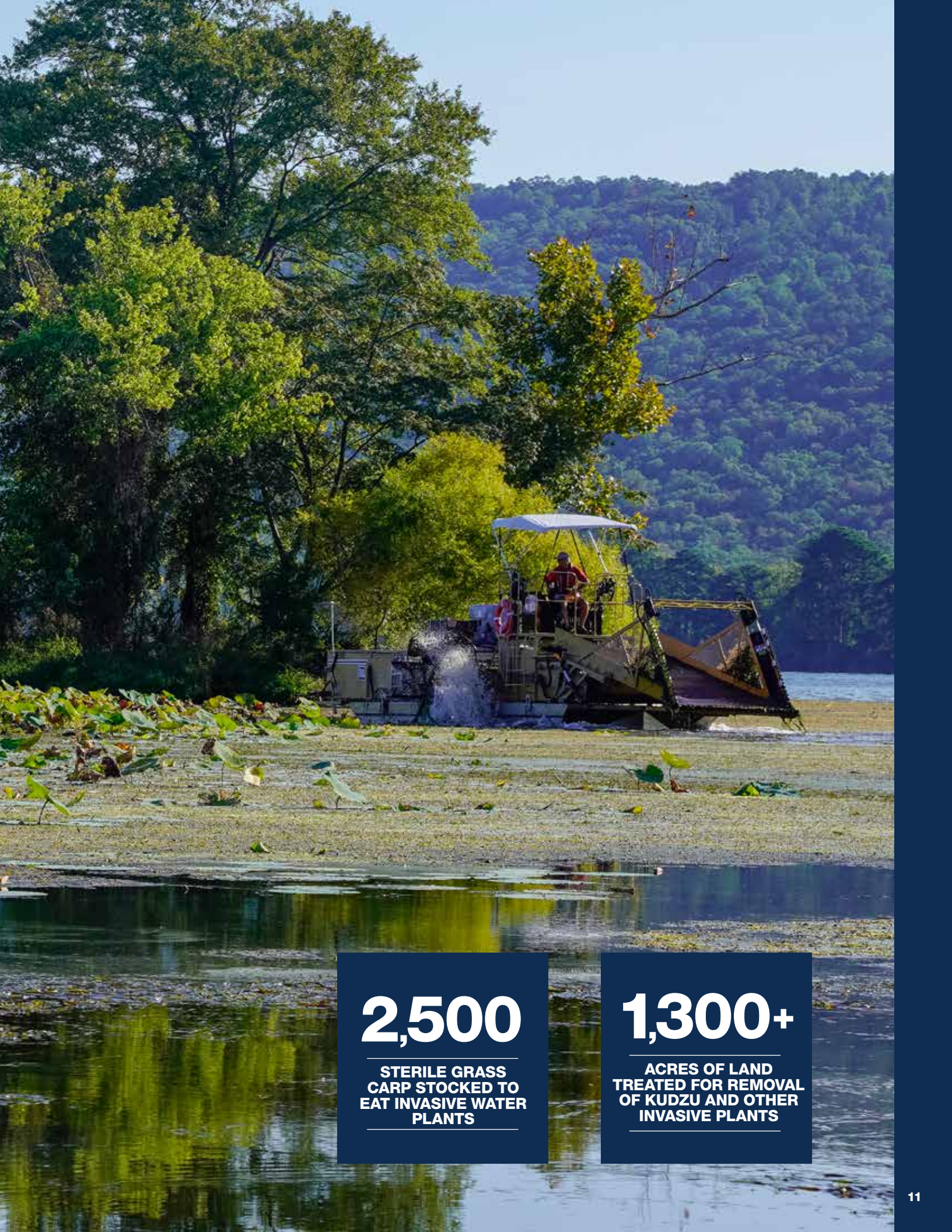
## On land

- This year, TVA treated and removed invasive plant species on 350+ acres at four popular recreation areas in Marion, Bradley and Hamilton counties in Tennessee.

## On water

- TVA managed invasive aquatic plants from 2,291 acres of water, focusing especially on Guntersville, Nickajack, Chickamauga and Pickwick reservoirs.
  - Natural Resources helped Browns Ferry Nuclear Plant in managing and removing invasive eelgrass from the plant's cooling water channels, providing two aquatic harvesters, technical expertise and 500+ staff hours.
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**2,500**

**STERILE GRASS  
CARP STOCKED TO  
EAT INVASIVE WATER  
PLANTS**

**1,300+**

**ACRES OF LAND  
TREATED FOR REMOVAL  
OF KUDZU AND OTHER  
INVASIVE PLANTS**

# CULTURAL RESOURCE MANAGEMENT

TVA has a rich history in cultural resource management that goes back to its establishment in 1933. As a federal agency, TVA is responsible for identifying, managing and protecting cultural resources that are found on its property or affected by its action.



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## This year, TVA:

- Conducted surveys on 365 acres of TVA land containing possible historic resources under our Section 110 Monitoring program.
  - Completed an inventory of items identified as funerary objects associated with present-day federally recognized Native American tribes. This is part of TVA's responsibility to comply with federal protection acts as well as our ongoing commitment to building relationships with tribes.
  - Partnered with Native American tribes and archaeologists to conduct research on TVA public lands.
  - Received support from 10 trained volunteers to help monitor archaeological sites around the Valley through our successful Thousand Eyes volunteer program.
  - Stabilized approximately 8,100 feet of shoreline, which included six sites and three partial sites on Kentucky, Pickwick, Wheeler and Chickamauga reservoirs.
  - Developed an archival research plan and compiled and synthesized multiple research collections. Corresponded with Alabama, Georgia, Tennessee and Kentucky researchers to gather additional data to support the Native American Removal & Relocation Route Project. Developed a data management plan and file geodatabase directory.
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WE PROTECT  
APPROXIMATELY  
**12,500**

ARCHAEOLOGICAL  
SITES ON TVA  
PUBLIC LANDS

**8,100**

FEET OF LAND ON  
SIX SITES STABILIZED  
TO PROTECT  
CULTURAL SITES

## WATER RESOURCES STEWARDSHIP

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.

Clean water is vitally important—for people, for plants and for animals. Year after year, we monitor conditions in Valley streams and waterways with a broad range of clean water initiatives to support aquatic health.



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### This year, TVA:

- Established 21 new acres of riparian buffer.
  - Worked with partners to plant trees along 4,300 feet of streams in the Little Tennessee River Basin as part of the Shade Your Stream program.
  - Partnered in the Paint Rock Watershed in Alabama to install five miles of buffers and five miles of cattle exclusion fencing, and plant 60,000 native hardwood trees.
  - Supported hellbender conservation by teaming up with partners to help stakeholders learn more about hellbenders and their habitats.
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TVA CONDUCTS  
**fish  
surveys**

MONITORING  
AQUATIC HEALTH OF  
TENNESSEE VALLEY  
STREAMS

**41**

MARINAS CERTIFIED  
AS TVA CLEAN  
MARINAS

TENNESSEE  
WATERSHED  
SUPPORTS  
APPROXIMATELY

**300**

NATIVE FISH  
SPECIES

TENNESSEE  
WATERSHED  
SUPPORTS

**80**

FRESHWATER  
MUSSEL SPECIES

## 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 hiking trails to developed commercial campgrounds, TVA works to balance the resources under its care, providing recreational opportunities for everyone.



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**We invested a lot of time and effort to enhance our TVA Dam Reservations and Day Use Areas to make visitors' experiences better.**

### **This included:**

- Repaired: walkways, ramps, docks, piers, pavilions, bathrooms, parking areas, roads, riprap;
- Replaced: safety barriers, benches, signs, handrails;
- Installed: fence, parking; new camping pads, fire pits, lighting, and removed hazard trees.

 **Learn more!**  
[tva.gov/recreation](https://tva.gov/recreation)

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The Pickwick Dam Reservation is one of the TVA recreation areas that we focused on this year. We repaired damage on Loops B and C of the campground from this year's spring flooding, rebuilding with methods designed to improve resiliency in the future. We repaired the boat ramp, parking areas, and the fisherman's day-use area. We also rebuilt Loop A of the campground; removed gravel and debris; installed new camping pads with timber and gravel; installed new picnic tables, grills, and fire rings; installed new electric pedestals and water hydrants; added two new ADA-accessible campsites; and rebuilt eight primitive campsites along the shoreline.

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**30**

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**NEW CAMPGROUND  
OPERATORS TRAINED  
IN CAMP-RIGHT BEST  
PRACTICES**

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**22**

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**MILES OF ACCESS  
ROAD REPAIRED**

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**20**

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**ADA-ACCESSIBLE  
FACILITIES**

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## Camping

- TVA's six Dam Reservation Campgrounds are managed by Recreation Resource Management. TVA performed improvements at Pickwick, Melton Hill and Douglas campgrounds.

## Trails

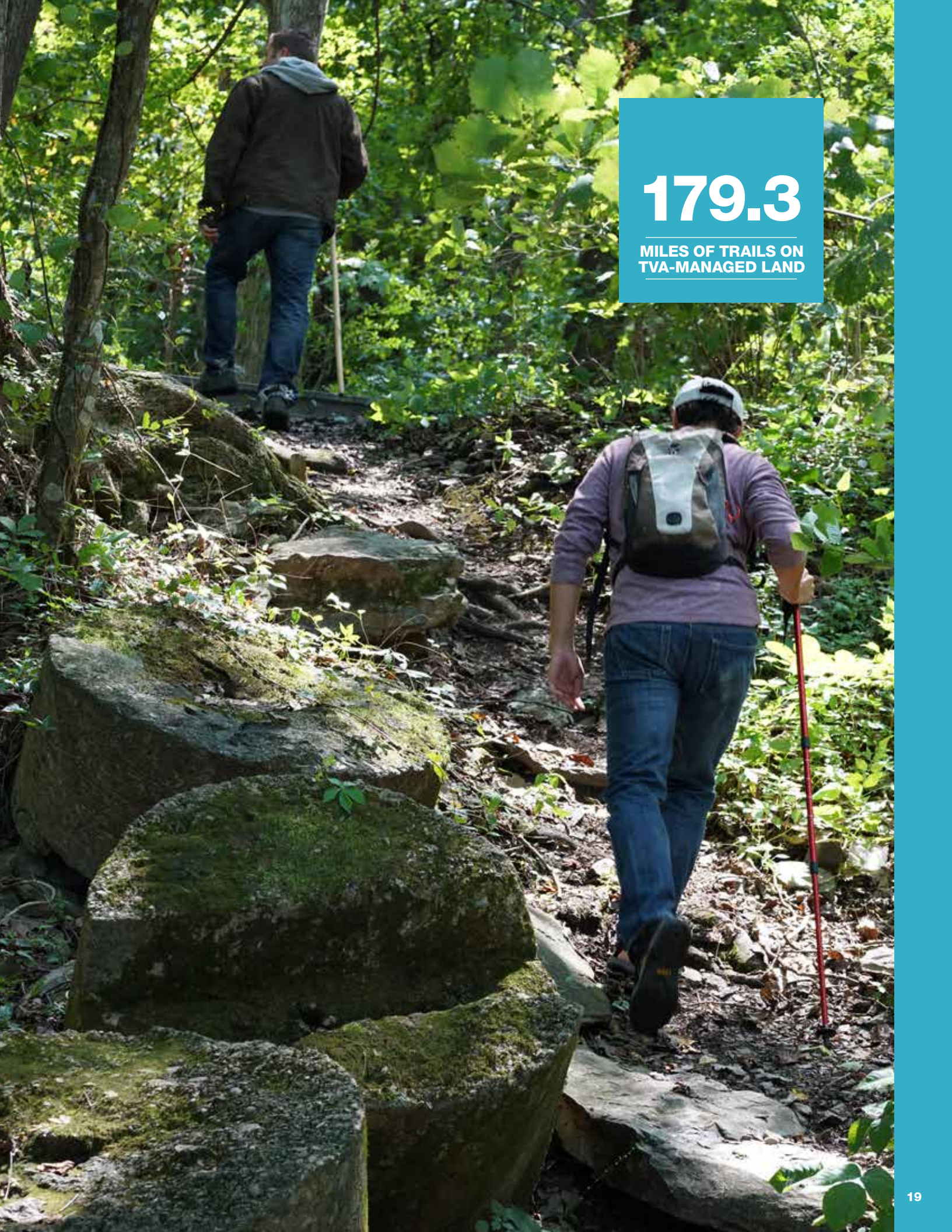
- TVA maintained approximately 100 miles of trail and constructed 4.3 miles of new trail along the South Holston reservoir.



## Fishing and Water Access

- We repaired four fishing piers and docks along Watauga, Tims Ford, Sycamore and Redbud reservoirs.
  - We developed three new boat launching ramps along Boone and Gunter'sville reservoirs.
  - On Tellico Reservoir in Loudon County, Tennessee, we improved a highly popular ADA-accessible area by repairing a fishing berm and parking lot.
  - Repaired, enhanced and performed maintenance on 14 lake or stream access sites in 10 counties on Boone, Gunter'sville, Bear Creek, Sycamore, Redbud and Pickwick reservoirs.
  - Built two new canoe access sites, one on Bear Creek Reservoir and one along Pickwick Reservoir.
  - We partnered with Legacy Parks and Knox County, Tennessee to create a canoe/kayak access site on the Holston River. The project is along a stretch of the river where there is no public access for 20 miles.
  - We developed detailed maps for paddlers who want to explore water trails in the Valley. The final in the series, Kentucky/West, is distributed and posted for recreationers.
- 





**179.3**

**MILES OF TRAILS ON  
TVA-MANAGED LAND**

# ECOTOURISM

TVA partners with state agencies and municipalities to expand recreational opportunities and support the booming industry of ecotourism.



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## This year:

- TVA's Natural Resources and Dam Safety groups partnered with Hamilton County, Tennessee, and the city of Chattanooga to build a 0.28-mile trail to connect TVA's Chickamauga Dam Reservation with 10 parks along the length of the local greenway.
- TVA continued its partnership in the National Geographic Tennessee River Valley (TRV) MapGuide initiative ([exploretv.org](http://exploretv.org)). The MapGuide is an interactive mapping platform used to promote Valley tourism. During COVID-19, tourism partners used [exploretv.org](http://exploretv.org) and social media to share outdoor recreation and tourism opportunities, which helped Valley communities attract visitors and support.
- TVA partnered with state and county entities to complete the Norris Public Land Connection study to identify the best corridor to connect public lands in Campbell, Union and Anderson counties. This effort will include two state parks, a county park, marinas and existing TVA lands and trails.

 **Check it out!**  
[exploretv.org](http://exploretv.org)

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The Bassmaster Classic was held on Guntersville Reservoir in Guntersville, Alabama. TVA was an exhibitor at the Classic's Outdoors Expo in Birmingham, Alabama, and provided information on natural resource management, aquatic monitoring, cultural resources, and river management.

Prior to the event, TVA partnered with five organizations and over 50 volunteers to remove almost 100 bags of trash from along the shoreline of Guntersville Reservoir.



TVA is a proud member of the Tennessee Riverline Partnership with 17 other organizations devoted to establishing a continuous system of hiking/paddling trail along the Tennessee River.

- The Tennessee RiverLine Partnership began accepting applications for the River Towns Program and released Community Reports from five pilot communities.

## PUBLIC OUTREACH AND INFORMATION

TVA provides environmental education, volunteer opportunities, and community support to engage communities in outdoor activities and 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.



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Classroom and group outdoor education events were put on hold this year in support of CDC guidelines to reduce COVID-19 spread. Rather than canceling these programs altogether, TVA staff members have been working to implement alternative methods to continue these popular educational programs.

The TVA Science Kids-World Water Monitoring program, which is typically held in classrooms throughout the TVA service area, will continue with the creation of a virtual program that teachers can use in their classrooms or with distance-learning students.

The BioBlitz efforts have also transitioned to a virtual format. Expert naturalists with Discover Life in America have released video of their outdoor explorations, and invite members of the public to visit BioBlitz locations on their own to participate in a scavenger hunt for various species of plants and animals.

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### This year:

- TVA implemented the TVA Science Kids World Water Monitoring program before COVID-19, making 95 presentations in 39 schools in 11 counties, and working with 44 teachers and 2,150 students.
  - We adapted our environmental education programs and activities by creating virtual resources and video experiences for classroom and home use.
  - We created and installed Interpretive signs and kiosks.
  - We added new Adopt a Trail volunteers throughout the year.
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**2,615**

**CHILDREN RECEIVED  
ENVIRONMENTAL  
EDUCATION ACROSS  
19 COUNTIES**

**307**

**OUTREACH EVENTS  
IN 65 COUNTIES**

We've finished looking back at 2020...

Now let's look ahead at plans for 2021!

FLIP OVER THIS REPORT TO VIEW THE 2021 PLAN



Visit us at [TVA.com](http://TVA.com)