



2020 PARTNER



To Tennessee Valley Marinas

Almost 80% of the trash that ends up in our Valley lakes and streams washes in from the land when it rains. Although the problem of trash in our lakes is not so much boaters tossing trash into the lake, removing it often falls to lake users such as them.

In 2017, TVA, along with several partners, formed Keep the Tennessee River Beautiful, a nonprofit charged with educating and inspiring people to take action to create a clean, healthy, beautiful Tennessee River. Their goal is for communities and businesses along the river to rally to preserve, improve and protect the river for generations to come.

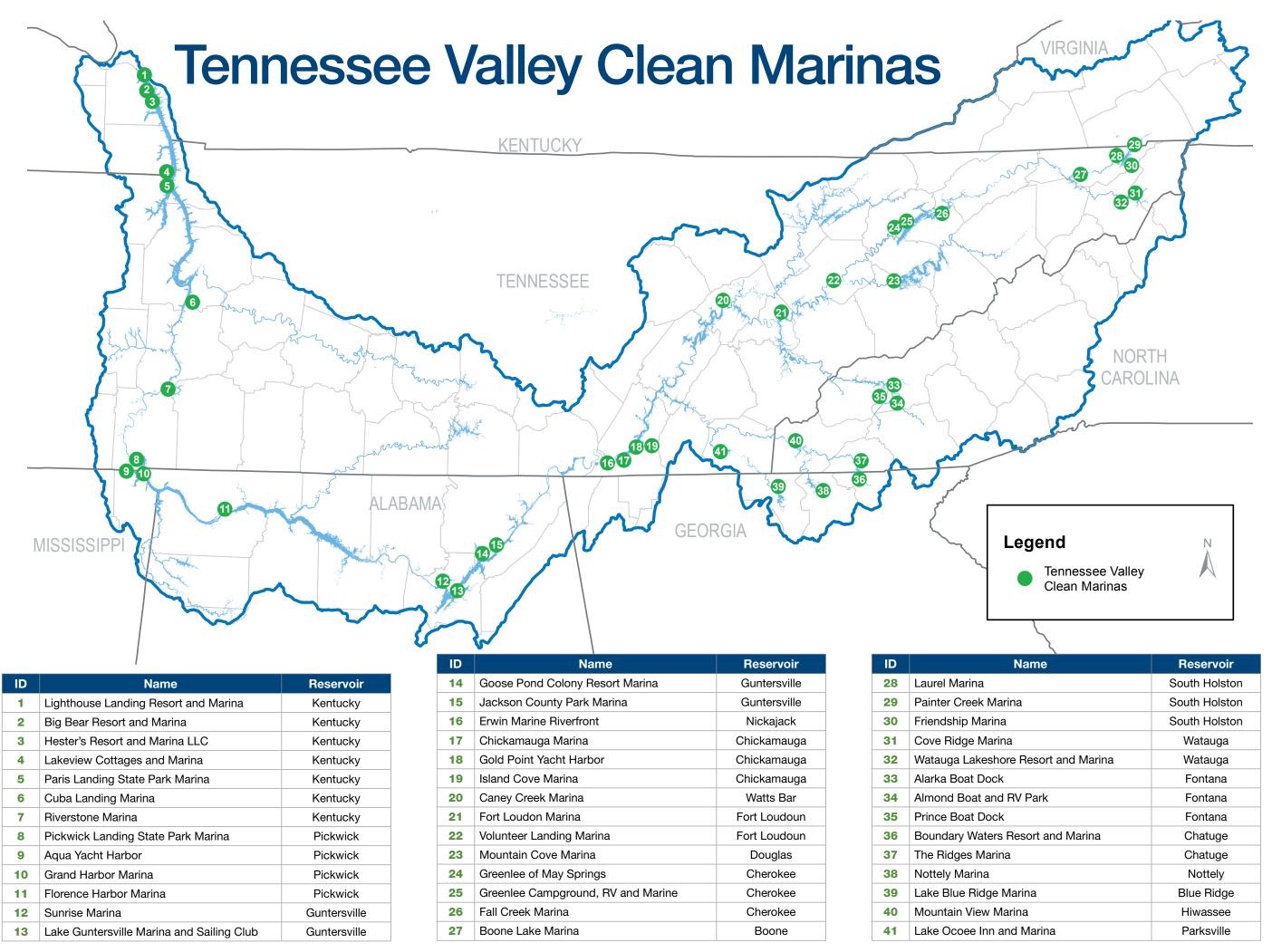
Please help them help all of us by participating in one of their organized cleanups or organizing your own. If you decide to organize your own, Keep the Tennessee River Beautiful can help you find partners, supply bags and gloves and advertise your event – they may even bring their 25' work boat to haul people and trash. Find their contact information at www.KeepTnRiverBeauttiful.org.

For this calendar, the focus is on litter: common types, its impact on ecology, safety or aesthetics and what can be done. Take this information, share it with your boaters and encourage them to participate in or organize a cleanup – let's wrangle that trash! Be a part of beautifying the Tennessee Valley.

Kudos to Tennessee Valley Clean Marinas as they are already regularly removing trash that finds its way into their harbors—just one of the many actions they do in order to earn the honor of being a Tennessee Valley Clean Marina. Thank you!

David Bowling

Vice President, River & Resources Stewardship



The Tennessee Valley Authority created this program to support and recognize marina operators and owners who are voluntarily striving to protect the water resources of the Tennessee Valley and to promote environmentally responsible marina and boating practices. This program is a way for TVA to recognize those marinas that go a step further to protect the water resource and ensure clean water is available to future generations.



This program scores marinas on seven topic areas. In each of the categories listed below, a marina must complete 75 percent of the recommended actions in order to be considered for certification:

Sewage Management

Raw or improperly treated sewage contains an assortment of pathogens, chemicals and nutrients, many of which pose a serious threat to human health and the aquatic environment.

Fuel Management

Spilled fuel creates a barrier to oxygen movement across the water surface, coats the leaves of aquatic plants, discolors boat hulls and dock supports and deteriorates Styrofoam.®

Solid Waste and Petroleum Recycling/Disposal

Trash and litter can be environmentally damaging and aesthetically displeasing.

Vessel Operation, Maintenance and Repair

Debris, drips and spills from vessel cleaning, maintenance and repair can end up in the water when it rains or snows. Paint chips, metal filings, petroleum products and cleaning solvents can be toxic to aquatic life.

Marina Siting, Design and Maintenance

Locating marina structures so that they take advantage of existing water and wind currents and natural topography can make property maintenance easier.

Storm Water Management and Control

Storm runoff from parking lots, maintenance and repair areas and shorelines transports many pollutants to the lake. Some float on the water and some sink, but they all impact the aquatic environment.

Public Education

A boating public that understands the causes, sources and effects of pollution is more likely to want clean water to play in.

How to get certified

Ninety marinas have been certified since the start of the program in 2002. Certification is good for two years until renewal. After the first renewal, recertification is required every four years.

Has your certification lapsed? Not sure? Check our website – all currently certified marinas are listed – or review your certificate. Are you interested in getting your certification renewed, or have you never been certified and would like to be?

The process is easy – just give us a call. You can find the guidebook and checklist on our website. If you are really pressed for time, we will fill your checklist out for you – it takes about two hours. More than likely you are already doing many of the actions on the checklist, so don't think it will cost you a lot to be certified. If you have questions, let us know.

Call TVA's Public Land Information Center today to get started at 1-800-882-5263 or visit www.tva.com/plic.



Litter Facts From Keep America Beautiful

- Over 51 billion pieces of litter appear on U.S. roadways each year (91% is less than 4") that's almost 7,000 items per mile of roadway.
- Tobacco products comprise roughly 38% of all U.S. roadway litter; paper, 22%; and plastic, 19%.
- Packaging litter comprises nearly 46% of litter 4" and greater.
- 81% of littering occurs with notable intent. People are more likely to litter if they see litter.
- 76% of roadway litter appears to originate from motorists and pedestrians; an additional 16% is from improperly covered trucks and cargo loads.



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
DECEMBER 2019 s M T W T F s 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	FEBRUARY 2020 S M T W T F S		NEW YEAR'S DAY	2	3	4
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19	20 MARTIN LUTHER KING JR. DAY	21	22	23	24	25
26	27	28	29	30	31	



Think About Safety

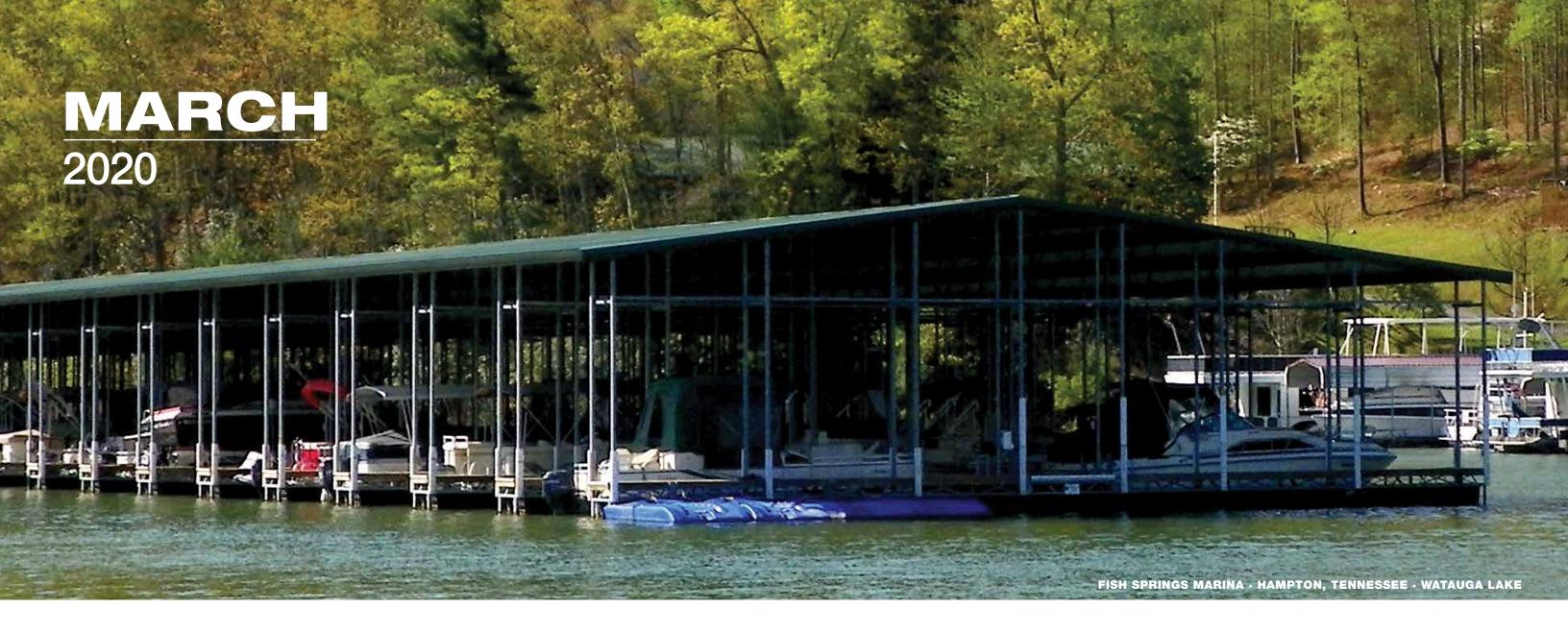
The litter of today is a lot different than the litter of the past. Today's litter may be leftover products used to cook meth, contaminated syringes, fishing lures with hooks still attached, boards with nails, rusted cans or broken bottles - all things that can cut, infect or make you sick, turning your fun day on the water into a nightmare.

The goal is for future generations to be able to splash, swim, tube, float, pick up rocks/shells and water-ski – all without concern for what might be lying beneath or floating on the surface – just like it was when you were a kid.

Participate in or organize a shoreline or stream cleanup by contacting kathleen@keeptnriverbeautiful or check the calendar at www.KeepTNRiverBeautiful.org.



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
JANUARY 2020 S M T W T F S	MARCH 2020 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31					1
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9	10	11	12	13	14	15
16	PRESIDENTS' DAY WASHINGTON'S BIRTHDAY	18	19	20	21	22
23	24	25	26 ASH WEDNESDAY	27	28	29



Reusable Is The Way To Go

Introduced in the late 1970s, the plastic shopping bag gained popularity because it's convenient, lightweight, strong and cheap to make. These same characteristics make it a threat to the environment. An estimated 1 trillion bags are consumed annually worldwide. They are responsible for causing pollution, killing wildlife and using up Earth's precious resources. Often used once, plastic bags end up in overcrowded landfills or become litter. If burned, they infuse the air with toxic fumes. Once in the waterways, they kill marine life like sea turtles, who think a plastic bag is a jellyfish and try to eat it. Bags take about 400 years to decompose, so their impact will outlive humans and animals.

The easiest way to help reduce the negative effects of plastic bags is to use reusable shopping bags. Each reusable bag can eliminate hundreds of single-use plastic bags that find their way to streets and streams as litter.



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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8 DAYLIGHT SAVING TIME BEGINS	9	10	11	12	13	14
15	16	17	18	19 FIRST DAY OF SPRING	20	21
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29	30	31			FEBRUARY 2020 S M T W T F S	APRIL 2020 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30



Moneymaker

Currently, only about half of all aluminum cans sold in the U.S. are recycled. Aluminum cans can take over 100 years to decompose. Why aren't more aluminum cans recycled, especially when there is money to be had?

Think about making some changes. Only sell drinks packaged in aluminum; install a bring-your-own-water-bottle hydration station, or sell a special bottle that can be filled for free at your soda dispenser for a year (after people get used to bringing their drink bottle, start charging for refills); install a collection bin for recycling aluminum cans (if you don't need the extra cash, donate it to a local youth organization - they might even help you collect and store the cans).



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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5	6	7	8 PASSOVER BEGINS	9	10	11
12	13	14	15	16 PASSOVER ENDS	17	18
19	20	21	EARTH DAY ADMINISTRATIVE PROFESSIONALS DAY	23	24 NATIONAL ARBOR DAY	25
26	27	28	29	30	MARCH 2020 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	MAY 2020 S M T W T F S



Bottled-Up Plastic Problems

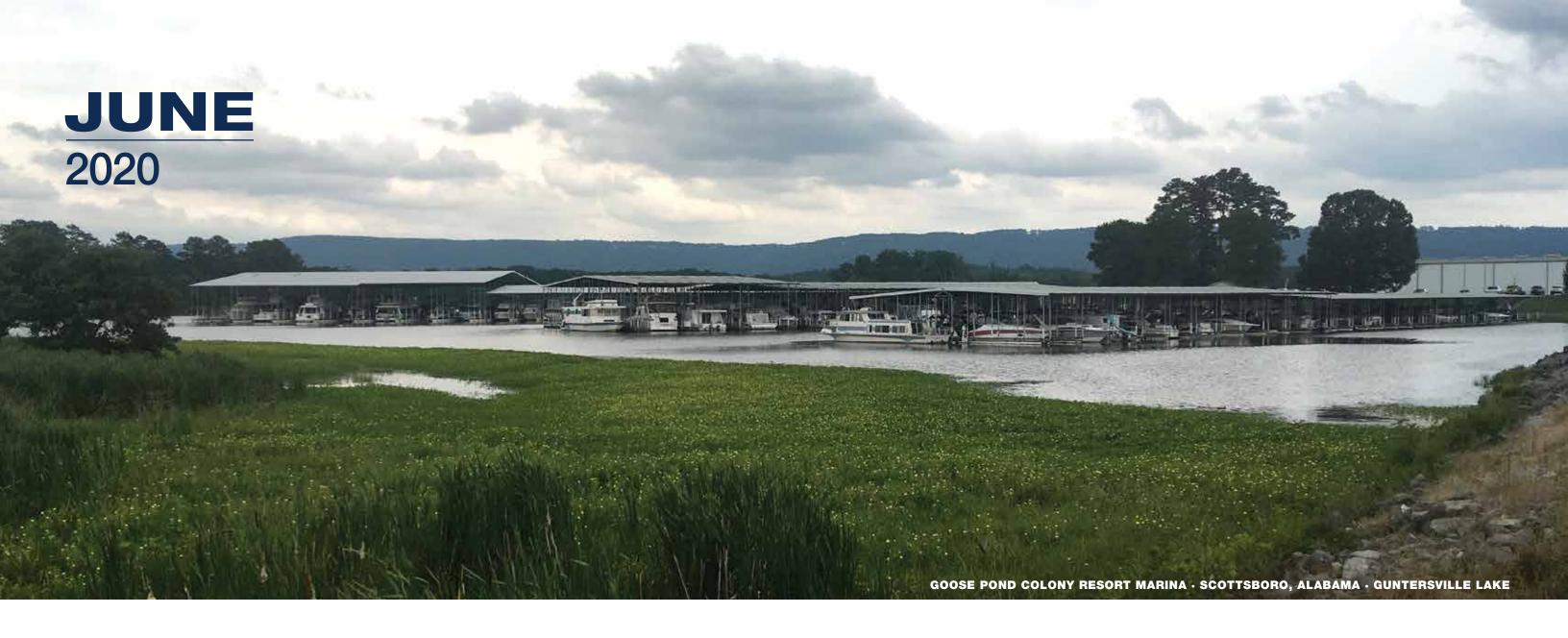
It's estimated that 1,000,000 plastic bottles are purchased by humans every minute. In the U.S. alone, roughly 23% of plastic bottles are recycled, so where are all the other plastic bottles ending up?

Unfortunately, plastic bottles are so light that they get carried by wind and rain into waterways, where they can travel great distances on the surface of the water. Since the Tennessee River links to the Gulf of Mexico via the Ohio and Mississippi rivers, that means that plastics from as far inland as Knoxville, Tennessee, can be found along the shores of Florida, Texas and Mexico, depending on which way the currents are moving.

What's worse: plastics never actually decompose. They just break into tiny particles called microplastics. Using a reusable water bottle is a great alternative, especially because they don't easily get blown off of the boat!



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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10	11	12	13	14	15 NATIONAL WEAR YOUR LIFE JACKET TO WORK DAY	16
17	18	19	20	21	22	23
24 31	25 MEMORIAL DAY	26	27	28	29	30



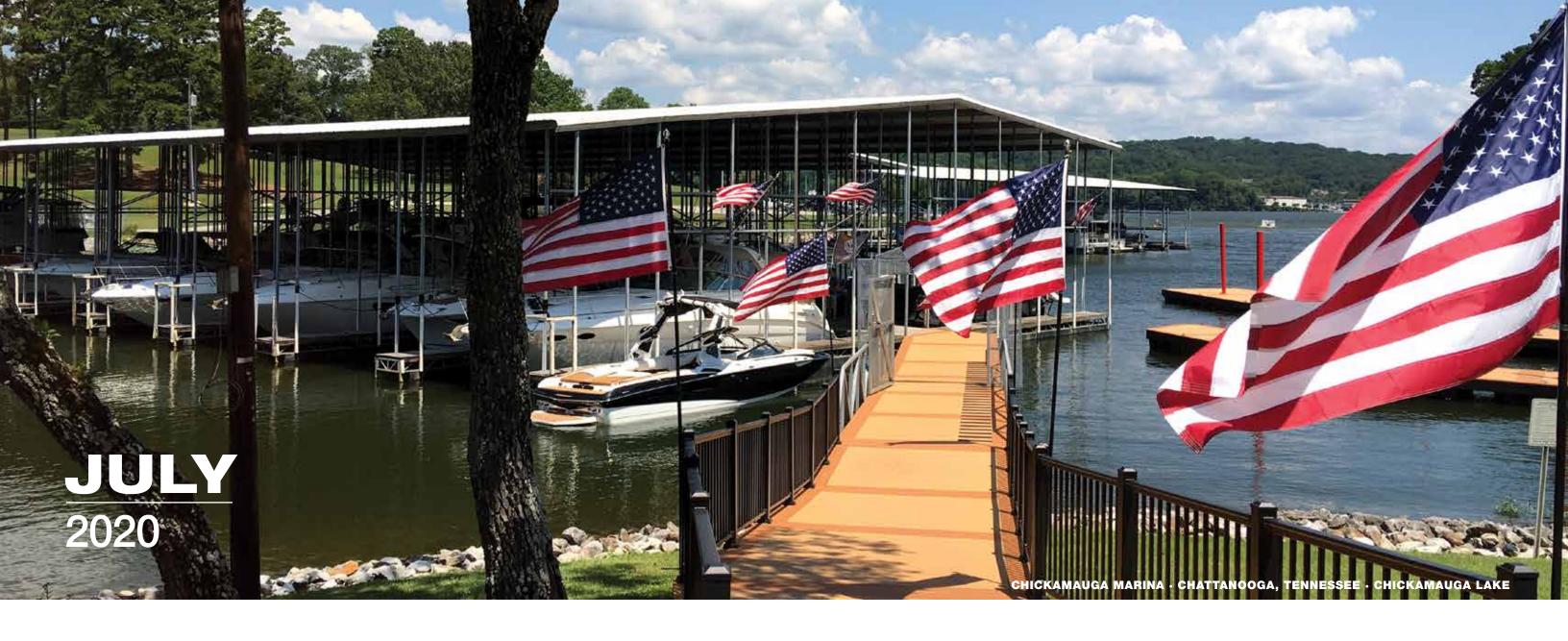
LeaveNoTrace.org

Sometimes outdoor enthusiasts want a wilderness experience that's free from modern conveniences, so they seek undeveloped lands for camping. The camper is responsible for disposing of waste, providing wood for the campfire and designating the place for tent setup. Doing what's convenient in these cases isn't always what's environmentally responsible and can lead to polluted areas and highly disturbed ecosystems.

To cause the least impact while camping, campers should follow the basic principles of Leave No Trace. This means what you bring, you take. When you leave, there should be no trash and no damage to or removal of vegetation. Littering on public property is a crime. Toilet tissue and other disposables should not be discarded in the woods or even buried, but should be wrapped after use and disposed of in a proper trash receptacle. These small steps reduce the negative impacts of undeveloped-campsite camping.



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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7	8	9	10	11	12	13
14	15	16	17	18	19	20 FIRST DAY OF SUMMER
21	22	23	24	25	26	27
28	29	30			MAY 2020 S M T W T F S	JULY 2020 s m T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31



One Hour of Use...Thousands of Years In the Water

We work hard, and life is busy. Even when we're enjoying leisure time on the river, there barely seems to be enough time to pack up and actually get to the part of enjoying time on the water. That's where we as a society began to lean on what seemed to be conveniences like throwaway utensils and straws.

As it turns out, those items that we use a few hours (at best) will take up to a thousand years to go away. The fact is that they never actually decompose; they just break down into microplastics that are winding up ingested by the fish we eat or in the water we drink.

In just one day in the U.S. alone, enough throwaway plastic straws are used that if placed end-to-end, they would wrap the earth two-and-a-half times. Please help by reducing your use of single-use utensils that can easily blow off of boats, out of trash cans and even from garbage trucks and end up in our waterways.



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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Wrapped Up in Fishing Gear

Some of the most prestigious fishing tournaments have been hosted in the Valley because the Tennessee River boasts more than 230 species of fish. (That's twice the species present on the Mississippi River!) The sport of fishing contributes a great deal to the estimated \$12 billion raked in by the recreation industry on the Tennessee River alone, helping the region's economy!

That being said, fishing gear that gets left in the waterways is not only unsightly, it can also harm the diverse species of wildlife that inhabit the water and shorelines. Most fishing line, for example, can take up to 600 years to break down and poses a threat for entangling crucial aquatic species, some of which are endangered. Sinkers frequently cause lead poisoning in large birds of prey, particularly the American bald eagle.

The fishing community is one of the biggest advocates and stewards for the Tennessee River watershed. More often than not, fishing gear is left by anglers when there's no other choice. When you can, please make the extra effort to recover your fishing gear. Your aquatic friends on the river will thank you for it!



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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Bob. Bob. Bobbing Along

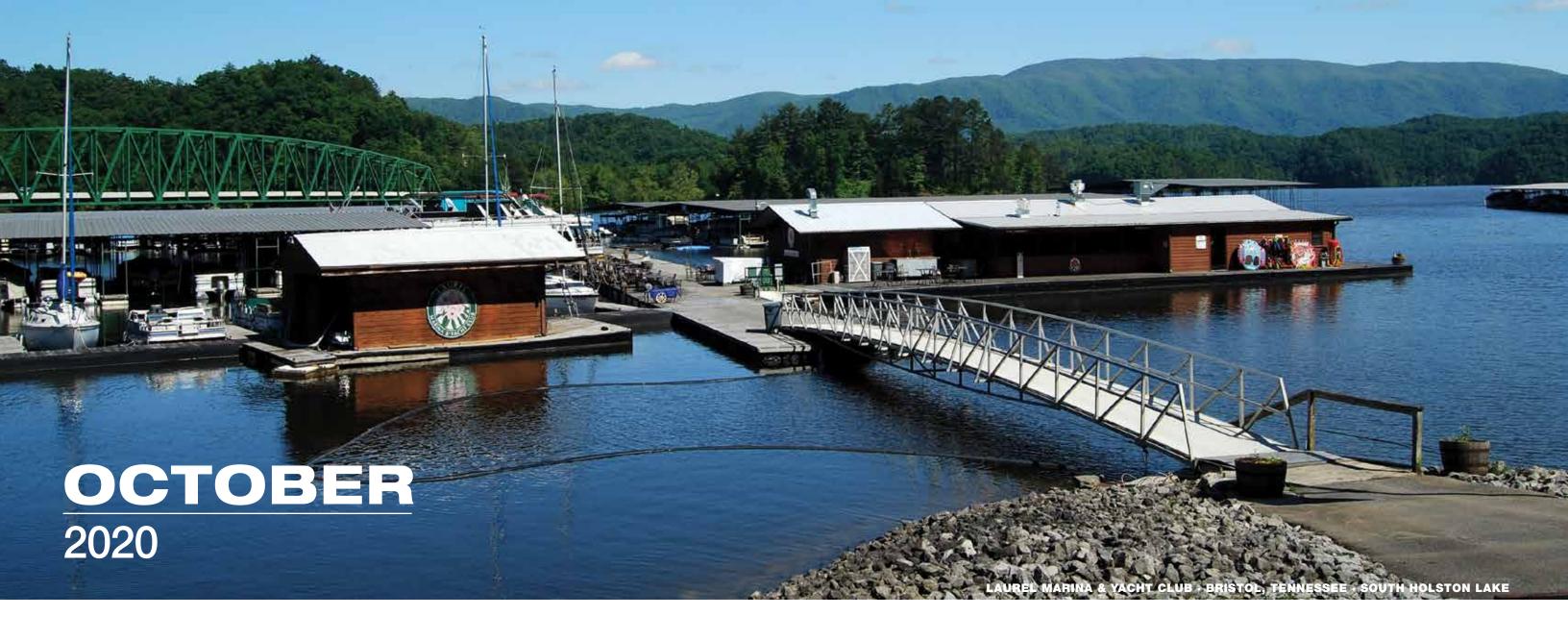
Replacing the exposed, waterlogged old flotation under a dock or floating cabin – what to do with the old? At night, just push it out in the current so that it is carried downstream...right??? Some lakes have a bigger problem than others, but they all have large chunks to tiny pieces bobbing in the water or scattered along shorelines.

If you have ever participated in a shoreline cleanup, you wish for an easy way to collect all the little pieces – depending on how determined you are, how much time you have and the size of your bag, you could spend hours just picking up small pieces of polystyrene.

Polystyrene does not biodegrade. It usually fragments into small pieces that end up choking animals that ingest it by clogging up their digestive system. Some types are sensitive to sunlight and can break down into a powdery substance – the chemical is still there, just in a different form. Please take unneeded polystyrene to a landfill.



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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13	14	15	16	17	18 ROSH HASHANAH BEGINS	19
20	21	22	23	24	25	26 NATIONAL PUBLIC LANDS DAY
27 YOM KIPPUR BEGINS	28 YOM KIPPUR ENDS	29	30		AUGUST 2020 s M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	OCTOBER 2020 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31



The Trouble With Littered Tobacco Products

Did you know that littered cigarettes create a major plastic problem for our waterways? Most cigarettes—which also happen to be the most littered item in the world—contain filters comprised of tightly compressed plastic fibers. When littered cigarettes are inevitably washed into waterways, whether downhill or through storm drains, it only takes months for their filters to break apart in the water and then present a floating microplastic issue.

The filters can also contain enough toxins to harm aquatic life within two gallons of surrounding water. Foundational species like mussels and plants that virtually all animals in the ecosystem depend on can be affected when the toxins are highly concentrated.

Likewise, plastic cigar mouthpieces and tobacco containers break down into tiny microplastics but never naturally decompose. These tiny bits of plastic are consumed by fish and ultimately make their way up the food chain to humans—YUCK!



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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						HALLOWEEN



Tire'd Out on the Tennessee River

Last year alone, volunteers removed over 1,000 tires from the Tennessee River watershed. There are a few reasons people discard tires in the river—avoidance of tire disposal fees, attempts to make fish attractors, unintentional loss off of docks/floating devices—but there are so many more reasons not to:

- Tire rubber breaks down into tiny particles called microplastics and have been estimated to make up roughly 10% of the microplastic presence in waterways.
- Tires are comprised of potentially harmful oil-based chemicals and metals like zinc, cadmium and lead that eventually leak into the water.
- They're unsightly when washed onto shorelines. Visible litter is known to reduce property values by nearly 10%.

The next time you consider tossing a tire into the creek or river because you think it might help breed more fish, ask yourself: Would I really want to eat a fish whose habitat was continuously leaking petroleum-based chemicals and metals?



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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22	23	24	25	26 THANKSGIVING	27	28
29	30				OCTOBER 2020 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	DECEMBER 2020 S M T W T F S



What's That You See?

Time on the water is usually an opportunity to escape the daily grind. Opportunities to escape can be few and far between, so when we do manage a few hours, we tend to look for high-quality opportunities. Many seek solitude where they don't see reminders of others – houses, businesses, other boaters and, yes, even litter. Seeing litter tells you that you are not the first person to discover this idyllic location or that others may return at any time and spoil your opportunity to recharge.

Communities throughout the Valley are seeing an upsurge in paddling sport participants, and those with floatable streams are implementing strategies to attract the paddlers. Part of their strategy includes removing the litter so the paddling experience is more pleasurable. Many strategies also include an educational component letting residents and visitors know the impacts of their actions.

Every time you go out on the water, make time to pick up one bag of litter, and at least once a year, participate in a shoreline or stream cleanup.



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NOVEMBER 2021

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DECEMBER 2021

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Do you have a question about TVA Public Land? Call 1-800-882-5263

PUBLIC LAND | MONDAY - FRIDAY 8:00 A.M. - 6:00 P.M. EST 7:00 A.M. - 5:00 P.M. CST

email: plic@tva.com · website: www.tva.com/plic