

# LAKE NEWS

and Shoreline Views

## WATER-LOVING BIRDS

*Birds can be very picky about the habitats they occupy. Some seek out high tree canopies. Some feed and nest near the forest floor. Others prefer grassland habitats.*

*And then there are some that never get far from water...*



*Giant Canada Goose*

# Permitting and Dock Labeling

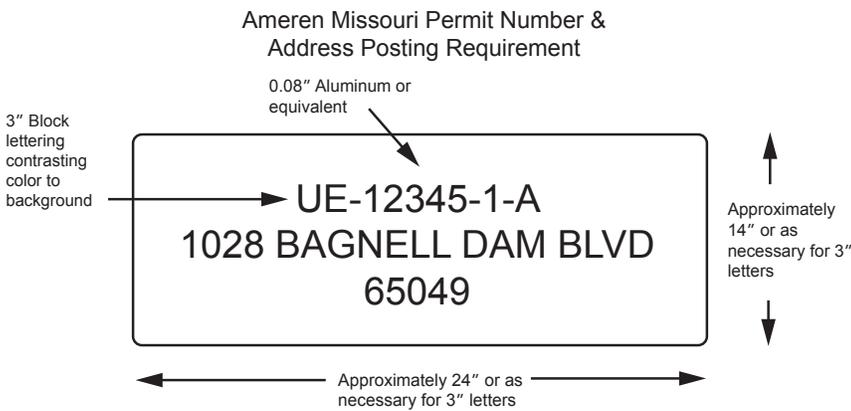
All structures within the project boundary must be authorized in accordance with our FERC license. This authorization has been a requirement since 1931 and is accomplished by the issuance of a permit. Permit review and approval was originally handled by the Corps of Engineers and is now administered by Ameren Missouri. Each individual structure that has been or will be installed within the project boundary must have its own permit, with an identifying number that is issued to the current owner of the structure. **Permit numbers are unique to a parcel of land, much like a 911 address.** They do not move with a facility such as a boat dock. Permits simply authorize structures within the Ameren Property Boundary. No property rights are conveyed by issuance of a permit.

**TRANSFERRING PERMITS:** If you buy a lakeside property, it is your responsibility to transfer all the permits associated with that property into your name. This can be done with a single transfer request, which will cover all existing permits (dock, pump, seawall, etc.) on your new property. In order to initiate a permit transfer, you will need to:

- **Provide a copy of your property deed.**
- **Provide an approved electrical inspection (dated within the past 12 months) if you're located within one of the following fire districts: Lake Ozark, Rocky Mount, Mid-County, Osage Beach, Sunrise Beach, or Northwest.**
- **Pay a one-time \$100 processing fee.**

To apply and pay for new permits, apply for permit transfers, and make sure your lakeside improvements are properly permitted, go to our new online permitting system at [AmerenMissouri.com/Lake](http://AmerenMissouri.com/Lake). You can obtain copies of your permits as well. If you have questions, email [lake@ameren.com](mailto:lake@ameren.com).

## Dock Labeling

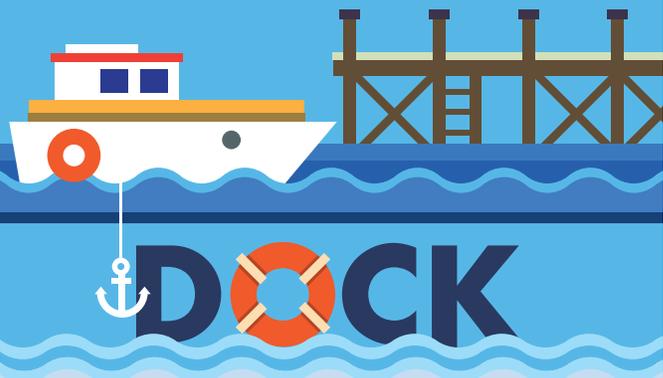


The sign shall be mounted on the lake side of the dock in a location most visible from the cove or the main channel

Missouri State law requires all docks located at the Lake of the Ozarks to display their permit number and the nearest land-based 911 address, including the zip code. In addition to being a Missouri state law, there are practical reasons to properly post your dock. It allows water patrol and fire department personnel to rapidly locate your property in the event of an emergency. On that same note, work you may have scheduled for your dock or shoreline could be delayed if contractors have difficulty locating your property.

Beginning in 2023, Ameren will be making a concerted effort to identify all the improperly posted and unpermitted docks on the lake and notify the owners to bring those docks into compliance.





## ELECTRICAL SAFETY RULES:

**All docks need continual inspections by their owners.** Water movement can cause wear on your dock's electrical equipment. Monthly ground fault circuit interrupter (GFCI) testing of electrical equipment and bonding wires is recommended.

During the winter, wires and electrical outlets can deteriorate due to freezing and thawing. Electrical equipment that worked well the prior season will need to be inspected before using the dock again.

**Have both the dock and the power supply to the dock regularly inspected by a qualified electrician.** Electrical problems in or near the house and lines feeding the dock can cause life-threatening problems, even with docks that meet code and have been inspected.

**Never swim around a dock where breakers or GFCIs are tripping.** HEED THE WARNING SIGNS! If in doubt, swim away from the dock and get out! If a breaker or GFCI trips, something is wrong and the dock should be considered unsafe until a qualified electrician inspects and fixes the problem.

**Never attempt to energize or re-energize, engage a breaker, or reset a GFCI while someone is swimming near the dock.** Get the dock inspected and fixed before using or swimming nearby.

**Do not touch any part of the dock or adjacent docks if a tingle or shock is felt.** Swim or get away from the dock, cables and attachments. Exit the water away from the source of the shock. If possible, swim to the shoreline and exit there.

**For additional information on dock electrical safety, visit your local fire district website or [SafeAtTheLake.com](http://SafeAtTheLake.com).**

## Mosquito Control

The mosquito control program has been in effect at the lake for at least 99 years. A 1934 tourism brochure advertised that "Our evenings and nights are cool, and you may play or slumber peacefully, unmolested by the mosquito, that pest having been virtually exterminated by the **Malaria Control Fleet**." That was a bit of an overstatement. Malaria has been all but eradicated, but the hardy mosquito is still with us today. The program is now part of Ameren's FERC license in conjunction with the Missouri Departments of Natural Resources and Conservation.

Back in the day, the lake was treated with diesel fuel to kill the mosquito larvae. Yes, it was effective at controlling mosquitoes, but it killed a lot of other things as well. Today, mosquito control is accomplished with the aid of a larvicide that kills the mosquito larvae before it changes into the flying (and biting) adult. Unlike diesel fuel, this EPA-approved larvicide effectively controls aquatic mosquito and blackfly larvae without harming beneficial aquatic insects, fish, our pets, or us.

Each year, the mosquito control fleet concentrates on shallow cove heads and vegetated areas, which are the preferred breeding habitat for mosquitoes.

Ameren can provide control of mosquito populations that attempt to breed in Lake of the Ozarks, but much of the suitable breeding habitat is above the level of the lake and out of our control. On your property, look for areas that may contain stagnant water, which are prime breeding areas for mosquitoes. These include clogged gutters, old tires, and any container placed so that it holds water.



*Larval mosquitoes share little resemblance to the adults. Look for small (1/4 inch or less) worm-like creatures that are often suspended at or near the surface of standing water.*



Although the occurrence of malaria in the United States is now rare, mosquitoes can carry and transmit diseases such as West Nile and Zika viruses to humans. The best ways to minimize your risks are to:

- Wear long-sleeve shirts and pants.
- Stay indoors around dusk and dawn, when mosquitoes are most active.
- Use an effective insect repellent designed to protect against mosquitoes.

For more information, visit [Cdc.gov/westnile](http://Cdc.gov/westnile) or [Cdc.gov/zika](http://Cdc.gov/zika).

*Missouri hosts more than 300 species of birds that either reside here at the Lake of the Ozarks year-round or travel through the state during annual migrations.*

*Birds can be very picky about the habitats they occupy. Some seek out high tree canopies. Some feed and nest near the forest floor. Others prefer grassland habitats. And then there are some that never get far from water.*

## Year-Round Residents

**Belted Kingfishers** are often seen perched on isolated limbs and on docks, giving them a good vantage point to spot fish, which they capture by diving headfirst into the water. They often emit a loud, rattling call when in flight. If you are a photographer who wants a challenge, try getting a good shot of one of these guys!

The **Wood Duck** is our most colorful waterfowl. They feed primarily on acorns and other seeds. They are unusual in that they nest above the ground in tree cavities, and they will readily nest in boxes erected for that purpose. Learn how to build a house for wood ducks and other species at [nestwatch.org/learn/all-about-birdhouses](http://nestwatch.org/learn/all-about-birdhouses).

The **Great Blue Heron** is our largest heron, standing 4 feet tall with a wingspan of nearly 6 feet. These birds nest in colonies called "rookeries." Usually located in tall trees near the water, some of these rookeries can contain dozens of nests. Great Blue Herons feed primarily on fish but will eat almost anything they can overpower and swallow, including snakes, crayfish, small mammals and other birds.

Believe it or not, the now-common **Giant Canada Goose** was declared extinct in the 1950s until a small population was discovered in Minnesota in the early 1960s. Needless to say, restoration efforts in several states were effective to the point that they are now a nuisance in some areas. Canada geese mate for life and can live up to 20 years.

The **Mallard** is our most common duck at the lake. If you find a duck nesting in the flowerpot on your dock, this is likely the culprit. The drake (male) is distinctive with a metallic green head and curly tail feathers.

Our national symbol, the **Bald Eagle**, is a recovery success story in Missouri. Back in 1985, there were no known active nests in the state. Today, there are an estimated 20-plus nests near Lake of the Ozarks between Bagnell Dam and Warsaw.

# WATER-LOW



*Belted Kingfisher*



*Wood Duck*



*Great Blue Heron*



*Double-crested Cormorant*



*Great Egret*



*Green Heron*

## Seasonal Visitors

*Seen mainly in the spring and fall (Mar-Apr, Oct-Nov)*

The **Common Loon** is a familiar bird to anyone who has spent any time on northern lakes in the summer. The yodeling or wailing call of a loon is unmistakable. They are large, approximately 32 inches head to tail. In the spring, they have a black-and-white checkerboard pattern on their backs and wings. The bill is stout and straight and usually held parallel to the water.

The **Double-crested Cormorant** is similar in size and shape to the loon but has an orangish bill and throat with green eyes. Cormorants also hold their heads tilted slightly upward and have a hooked bill. Some cultures have used cormorants for centuries to catch fish by loosely tying a cord around their necks and allowing them to dive for fish. The birds are able to swallow the smaller fish they catch, but the larger fish are too big to get past the cord and are retrieved by the fisherman.

The **Great Egret** is slightly smaller than the Great Blue Heron and is all white with a yellow bill. They are found throughout the world in tropical and warm temperate regions. In the 19th century, they were hunted nearly to extinction for their feathers, which were used to decorate hats.

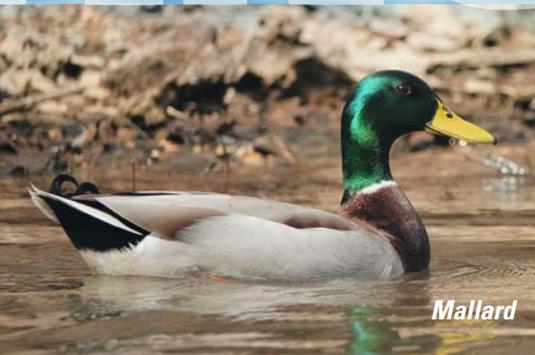
The **Green Heron** is often seen perched along the shoreline or in trees, usually near the back of a cove. It is a colorful bird, about the size of a crow, with a blue-green back; chestnut breast, neck, and face; and yellow legs. They are one of the few bird species in the world that use bait, placing insects or other small floating objects on the water to lure small fish to their feeding grounds.

The **American White Pelican** is one of the largest North American birds with a wingspan of up to 9 feet! Pelicans often feed cooperatively, with several lining up and working as a group to drive baitfish toward shallow water where they are easier to capture.

The **Ring-billed Gull** spends more time inland on freshwater lakes and streams than most other gull species. They breed primarily in the northern states and Canada but are commonly seen at the lake from fall through spring. They are easily identified by their yellowish bill, with a black ring near the tip.

The **Osprey** is a large raptor, approximately two-thirds the size of a Bald Eagle. They are found on every continent except Antarctica. After a 100-plus-year absence, Osprey began nesting in Missouri in 2000 as a result of restoration efforts. Osprey feed primarily on fish, which they capture by diving feet-first into the water at a high rate of speed.

# WING BIRDS



# Droughts, Lake Levels, and the Osage River

The day-to-day operation of the Bagnell Dam and Osage Energy Center can be a bit of a juggling act. There is daily coordination with the Army Corps of Engineers who manage the six reservoirs located upstream from our lake. In addition, continual monitoring of water releases into the lower Osage River takes place. Most of these behind-the-scenes processes have no impact on the average lake user unless something drastic happens – like a drought.

During much of the summer and into the fall of 2022, the lake area experienced a severe (D2) drought. Areas in western Missouri and eastern Kansas in the Osage River basin were receiving even less rainfall, with drought ratings of extreme (D3) to exceptional (D4).

Along with the drought came the inevitable low water levels in area streams and lakes. All the Osage Basin reservoirs were in the same situation. Harry S. Truman Reservoir, from which our lake receives approximately 85% of its inflow, was low and receiving very little inflow itself. As a result, it was releasing no water into the lake. We were reliant on inflow from numerous smaller tributaries, including the Niangua River and Grand Glaize and Gravois creeks. As a result, the Lake of the Ozarks was about a foot below the guide curve target elevation of 658.0 feet following Labor Day weekend.

Another factor that contributed to lower-than-normal lake levels was Ameren's license requirement to maintain a continuous **variable minimum release** of water through Bagnell Dam into the lower Osage River. Again, the amount of water released to meet this requirement typically goes unnoticed by lake users when the basin has been receiving a normal amount of rainfall. But a drastic reduction in inflow can change that. Yes, the lake is very large, but it does not hold an inexhaustible amount of water. For example,

with no inflow, full power generation at Bagnell will drop the lake 1.5 feet in 24 hours. Last fall, minimum releases to the Osage River drafted the lake at a rate of approximately 4 inches per week.

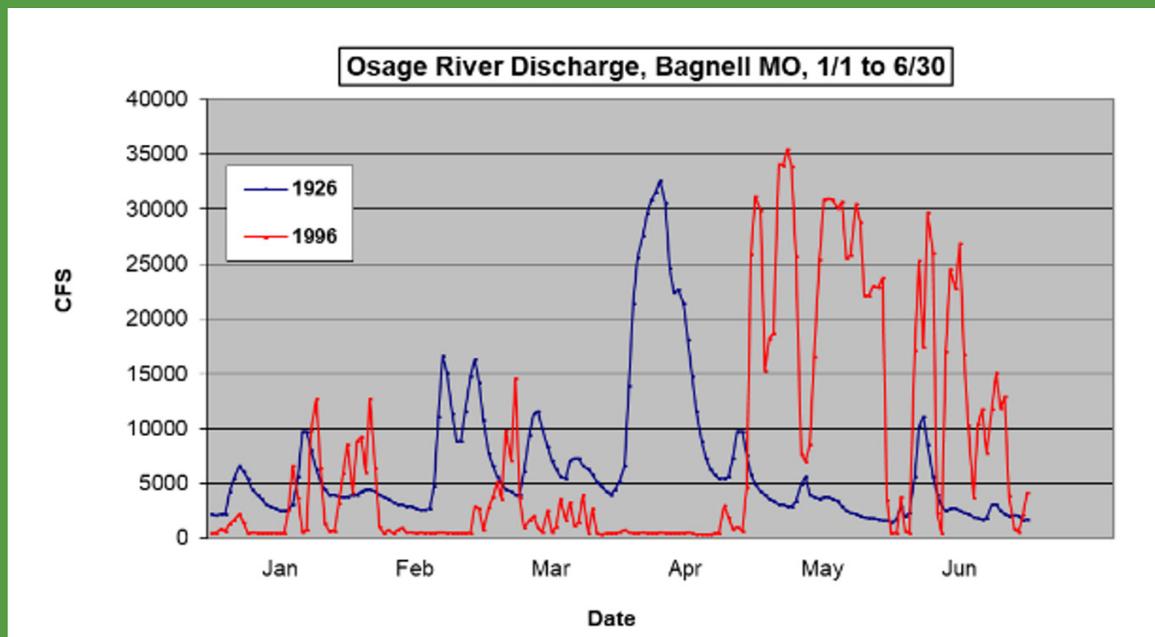
**All** releases to the river, other than flood releases through the spillgates, are also used to produce electricity.

So why are minimum downstream releases important? The Osage River is the third largest river in the state, topped only by the Mississippi and Missouri rivers. It is a popular recreational waterway that supports boating and a healthy sport fishery. Requirements in the most recent operating license (2007) have modified water release operations at Bagnell to more closely simulate the hydrological conditions of a free-flowing river. These include higher base flows and a more gradual reduction in downstream river levels following flood events. This more natural flow regime improves conditions for fish spawning and fish larvae survival, and provides benefits for the aquatic community as a whole.

**The primary components of the minimum flow requirement include:**

**7-day rolling average** – At any given point in time, a percentage of the previous 7-day average inflow to the lake is calculated to establish the minimum flow. This reduces drastic, abrupt changes in downstream river levels following periods of high discharge and reduces downstream bank erosion. In general, the more inflow the lake is receiving, the greater the amount of water is allowed to pass downstream.

**Absolute minimum flows** – The minimum flow that passes down the Osage at any given point in time is variable depending upon the time of year and the amount of inflow the lake is receiving. In line with the goal of simulating a more natural hydrograph, target minimum flows are higher from early spring through mid-summer, when we tend to receive more rainfall than the remainder of the year. The absolute minimum flow is 900 cubic feet per second.



*This graphic compares discharge in cubic feet per second (CFS) in the Osage River before and after construction of Bagnell Dam. The goal of the variable minimum releases is to reduce the abrupt on-and-off nature of discharge to the river due to power generation (red line – 1996) and more closely simulate the more gradual rise and fall of a free-flowing river (blue line – 1926).*

# Boat Crashes

Each year, the Missouri State Highway Patrol produces the **Missouri Boating Statistics & Drownings** report, a document reporting on the boat crashes and drownings that occurred in Missouri the previous year. The figures below are from data collected on all Missouri waters in the 2021 calendar year.

Aside from the actual number of incidents, the real eye-opening details are the **reasons** that these crashes occurred. Statewide, 65% of all crashes and 96% of fatal crashes involved **only one vessel**. The most common reasons for boat crashes include:

- Failure to keep a proper lookout and inattention to surroundings
- Water conditions too rough for vessel
- Inexperienced boat operator
- Failure to take evasive action
- Operating too close to another vessel
- Collision with a fixed object
- Excessive speed

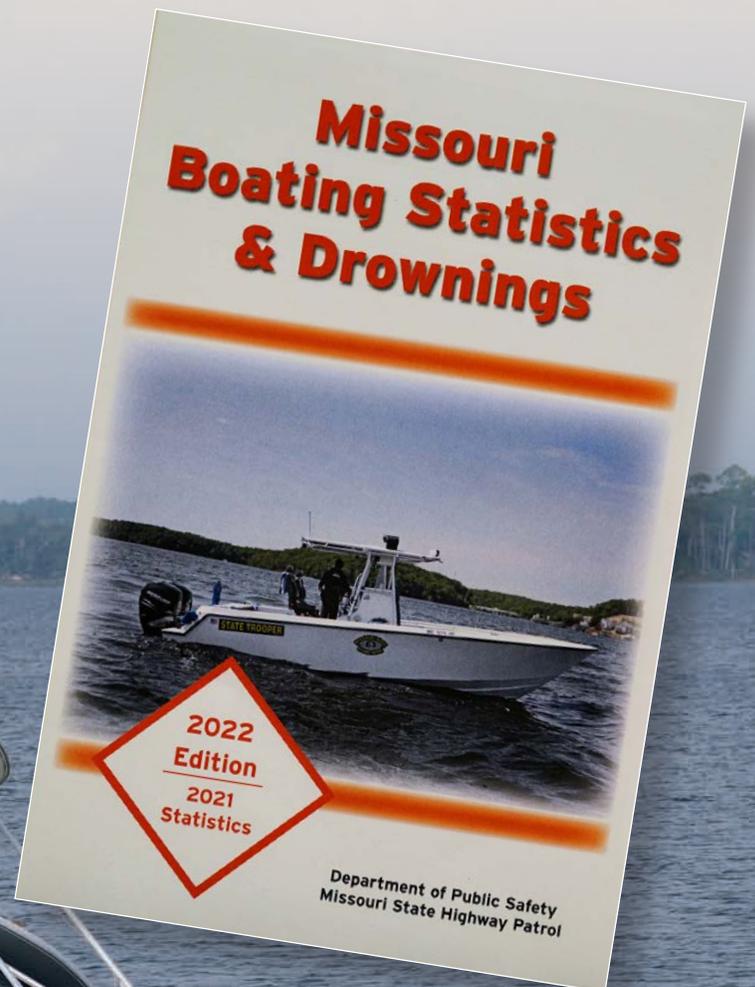
Roughly two-thirds of the single-vessel crashes statewide might have been avoided if the boat operator had paid better attention to their surroundings and/or water conditions. Although some boat crashes are out of the operator's control, most are ultimately preventable.

Other points from the 2021 statewide summary include:

- 90% of crashes happen from May through September and approximately 60% occur on either a Saturday or Sunday (not surprising)
- Most people prefer to go boating when it is nice outside. As a result, inclement weather such as fog and rain contributed to only 2% of all crashes.
- Driver impairment (drugs/alcohol) were involved in 16% of all crashes.
- Missouri accounted for 4.4% of boat crashes nationally.
- Lake of the Ozarks accounted for 44% of the 195 boat crashes in Missouri.
- 57% of the boat operators involved in crashes had no boater education.

The Missouri State Highway Patrol's Water Patrol Division and Ameren encourage boat operators to take a certified boater safety course at [mshp.dps.missouri.gov/WP02Web/app/safetyEdClasses](https://mshp.dps.missouri.gov/WP02Web/app/safetyEdClasses), or an on-the-water boat training course through the Safe Boating Council at [safeboatingcouncil.org/training/on-water-courses](https://safeboatingcouncil.org/training/on-water-courses).

*Have fun, but please be safe out there.*





3 Willmore Lane  
Lake Ozark, MO 65049

**Website:**  
[AmerenMissouri.com/lake](http://AmerenMissouri.com/lake)

**Important Phone Numbers:**

Lake Protection Hotline  
573.365.9203

Lake Level  
573.365.9205

Adopt-the-Shoreline  
573.365.9206

Water Patrol Division (Buoy)  
573.751.5071

Benton County (Emergency Management)  
660.438.8412

Camden County (Planning & Zoning)  
573.346.4440

Miller County (County Commission)  
573.369.1900

Morgan County (County Commission)  
573.378.4643

**Shoreline Management Staff is here to assist you with your next lakeside project and to help answer your questions about Ameren Missouri's role at the lake:**

**Osage Arm – Bagnell Dam to 10-mile marker and Gravois Arm**

Josh Friedrich - 573.365.9247

**Osage Arm – 10 to 26-mile marker, Glaize Arm, commercial docks, and docks 3,000 square feet or larger**

Heidi Shewmaker - 573.365.9216

**Osage Arm – 26 to 32-mile marker and the Niangua Arms**

Chuck Van Bebber - 573.365.9215

**Osage Arm – 32-mile marker to Truman Dam**

Joe Daly - 573.365.9207

**Dredging, wetlands, shoreline vegetation or other environmental questions**

Greg Stoner - 573.365.9206 • Brian Spencer - 573.365.9217

**Permit Transfers**

Elizabeth Langelier - 573.365.9212 • Shawn Roark - 573.365.9208



**EVERY STRUCTURE ALONG THE LAKE SHORELINE MUST BE COVERED BY A VALID PERMIT. DO YOU HAVE COPIES OF YOURS?**

To obtain copies of your permits, you will be asked to submit a permit request form. The permit request form can be downloaded from our website, [AmerenMissouri.com/lake](http://AmerenMissouri.com/lake)