Preparing Your Home for Winter Weather

Frozen pipes are one of the greatest concerns homeowners face when Winter arrives. Temperature drops, especially below 20 degrees Fahrenheit, can lead to pipe damage and possible breakage. As water freezes it expands, producing extreme pressure on metal or plastic pipes, causing possible break and cracks. Once the frozen broken pipes thaw, they may result in flooding and excessive water loss.

Cobb County experienced abnormal low temperatures during the 2022 Christmas holiday. Many customers’ homes and county buildings suffered damages due to frozen pipes. Although many factors come into play that result in frozen pipes (home or pipe age, home insulation, etc.), there are ways to prevent damage and save water.

Some tips to help prepare your home and pipes for the Winter season are:

• Insulate exposed pipes and cover your outdoor spigots.
• Shut off spigots that are not in use.
• Drain irrigation systems and disconnect outdoor hoses.
• Open cabinet doors under the sink to allow heat to reach pipes near exterior walls.
• Let faucets near outside walls drip a little.
• As temperatures start to rise, check for leaks in pipes.
• In case of a major leak, shut off the home’s main valve. For help to locate your home’s main valve, watch this video: https://www.youtube.com/watch?v=9QYmSs_174o.
• If you plan to be away from home during the holidays, remember to shut off and drain your water system.

Learn more about best practices for preventing frozen pipes and winterizing your home at our next Lunch & Learn, December 15th from 12:00 - 12:45pm. To attend, either in-person or virtual, register today at www.cobbstreams.org/events.

IF YOUR PIPES FREEZE:

Thaw With Warm Air
Before thawing a frozen pipe, shut off your water. Use a hair dryer to melt the ice in the pipe.

Inspect
After thawing pipes, slowly turn on water. Inspect pipes & joints for cracks or leaks.
Reducing Water Consumption During Drought

When the word drought is mentioned, the images that come to mind are often of parched ground and high heat. Cooler temperatures and the holiday season are not the typical images of drought conditions, but that is exactly what our area and the state of Georgia as a whole is experiencing right now.

Drought conditions are determined by various climatic indicators: U.S. Drought Monitor; Precipitation; Streamflow; Groundwater; Reservoir levels; Short term climate predictions; Soil moisture; and Water supply conditions. These conditions are published on a regular basis to the public and not only show current conditions, but also the likelihood that a drought will linger or worsen. These indicators are often subtle but help impact the actions that Georgia’s Environmental Protection Division (EPD) take now to conserve water for the future. Local conditions for Cobb County, such as rainfall over the last few months and stream flow levels, indicate that if current conditions continue an EPD declared drought may be in our near future. As the drought intensity level increases, regulatory restrictions for water usage become more severe.

Across most of metro Atlanta, our water supply comes from a surface water source, in Cobb County these sources are the Chattahoochee River and Allatoona Lake. When it doesn’t rain to replenish these surface water sources, supplies may experience stress. So, what can YOU do to help conserve water right now?

Residents should follow the state’s permanent year-round outdoor irrigation restrictions that limit outdoor irrigation to before 10:00am and after 4:00pm. Only water plants and lawns when necessary, most lawns and established plants can tolerate temporary drought conditions with no permanent damage. Use your dishwasher and washing machines only with full loads, remove laundry right away to prevent souring and to avoid having to double wash. Properly winterize your irrigation system so that your lines do not freeze and burst during cold weather. If you are traveling over the holidays, shut off your main water valve and open a faucet to allow all water already in the pipes to drain out. This simple preventive measure can lessen the chance of a major leak that results in wasted water. Practicing water saving measures now, can help preserve our water resources until, hopefully, wetter conditions soon.

To keep up-to-date on current drought indicator conditions and if official restrictions are declared by GA EPD, visit https://www.drought.gov/states/georgia, CCWS website cobbwater.org, https://allatoona.uslakes.info/Level/, and https://waterdata.usgs.gov/ga/nwis/rt.

COBB’S CLIMATE UPDATE

<table>
<thead>
<tr>
<th>Water Restrictions</th>
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<tbody>
<tr>
<td><strong>U.S. Drought Monitor:</strong></td>
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<tr>
<td>Moderate to Severe</td>
</tr>
<tr>
<td><a href="https://droughtmonitor.unl.edu/">https://droughtmonitor.unl.edu/</a></td>
</tr>
<tr>
<td><strong>Declared Water Restrictions Status:</strong></td>
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<tr>
<td>Non-Drought Status</td>
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<tr>
<td><strong>Outdoor water use:</strong></td>
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<tr>
<td>Irrigation permitted daily before 10 AM and after 4 PM.</td>
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<tr>
<td>No restrictions on other outdoor water uses: car washing, pressure washing, and hand watering.</td>
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<table>
<thead>
<tr>
<th>Rainfall</th>
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<tbody>
<tr>
<td><strong>Current</strong></td>
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<tr>
<td>Below Seasonal Average</td>
</tr>
<tr>
<td>Jan-Nov 2023 Total</td>
</tr>
<tr>
<td>49.79 inches</td>
</tr>
<tr>
<td>September: 1.78 inches</td>
</tr>
<tr>
<td>October: 1.59 inches</td>
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<tr>
<td>November: 1.52 inches</td>
</tr>
<tr>
<td><strong>Historical</strong></td>
</tr>
<tr>
<td>Below Average</td>
</tr>
<tr>
<td>Jan-Nov Average</td>
</tr>
<tr>
<td>45.81 inches</td>
</tr>
<tr>
<td>September: 2.76 inches</td>
</tr>
<tr>
<td>October: 2.24 inches</td>
</tr>
<tr>
<td>November: 3.03 inches</td>
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Sundog

Sundogs are colored spots of light that develop due to the refraction of light through ice crystals. They are located approximately 22 degrees either left, right, or both, from the sun, depending on where the ice crystals are present. The colors usually go from red closest to the sun, out to blue on the outside of the sundog. Sundogs are also known as mock suns or parhelia, which means "with the sun".

They can be seen anywhere in the world during any season, but are not always obvious or bright. Sundogs are best seen, and most conspicuous, when the sun is near the horizon.

Sources: https://tinyurl.com/mptyny8z
https://tinyurl.com/y7a2x8xm

Birds to Watch Out for This Winter

Each winter, many species of birds fly to the southern U.S. and Mexico for warmer weather and plenty of food that is high in protein. When spring comes, these birds return to their breeding grounds to raise the next generation of birds. A few of these visitors to look for in your backyard this winter are the Cedar Waxwing, the Hermit Thrush, and the White-throated Sparrow.

The Cedar Waxwing is a social bird with waxy appendages on its feathers. It is believed that these appendages help males attract mates. Cedar Waxwings eat whole fruit, spreading seeds throughout the environment. You can plant American beautyberry, flowering dogwood, and holly to attract them and other fruit-eating birds such as American Robins.

To spot a Hermit Thrush, check near streams and urban lawns during the winter. Their preferred food is insects, but if scarce they will resort to eating fruit. During the winter, Hermit Thrushes tend to forage with other birds like Chickadees, Titmice, and Brown creepers. The Hermit Thrush is unique because its voice box can produce multiple sounds at once for its beautiful song which includes clucks, whistles, and buzzy notes.

White-throated Sparrows are commonly found near hedgerows, backyards, and city parks. They can be easily identified by their sweet-sounding call, "Oh-sweet-Canada." White-throated Sparrows will readily eat millet and black oil sunflower seeds from feeders. Their natural food sources include grasses, weeds, and fruits (e.g., ragweed, blackberry, and dogwood).

Another bird you may notice more frequently during a winter night are a variety of owl species. Near sunset, you can hear the muffled "hooo-hoo-hoo hoo-hoo" of the Great Horned Owl or the “who cooks for you” of the Barred Owls. These two owl species do not coexist in the same territory, as Great Horned Owls don’t tolerate other birds. Great Horned Owls typically start incubating their eggs in mid to late December, while Barred Owls begin incubating about a month later. Although nesting in winter is typically risky, owls breed in late fall or early winter because it takes more time for their eggs to hatch and young to mature.

Sources:
https://www.allaboutbirds.org/guide/white-throated_sparrow
https://georgiawildlife.com/out-my-backdoor-winter-robin
https://www.ajc.com/life/wild-georgia-many-birds-move-to-state-for-winter/W6W5ZPXCCFR8PCPL22VUL7A7J7Y/
Not all kingfishers feast on fish—some eat bugs, lizards and even other birds. And past research has found that the dietary preference for fish—and, thus, the plunge-diving hunting style—evolved independently several times, rather than from a shared ancestor.

This revelation was like a gold mine for genetics researchers, because “if a trait evolves a multitude of different times independently, that means you have power to find an overarching explanation for why that is,” says study co-author Shannon Hackett, associate curator of birds at the Field Museum in Chicago, in a statement.

Using frozen specimens from the museum’s collection, researchers sequenced the DNA of 30 different species of kingfishers—including some that ate fish and some that did not. They then compared the birds’ genetic codes to look for variations that the fish-eating kingfishers might share. The team identified several modified genes among the diving birds, including some related to diet and brain structure. One especially interesting mutation occurred in the MAPT gene, which codes for proteins called tau.

In humans, tau proteins are important because they help stabilize cells in the brain and support healthy brain function. The accumulation of too much tau, however, can be a bad thing: Doctors often see a build-up of tau tangles in the brains of Alzheimer’s patients. Tau is also a hallmark of concussions and traumatic brain injuries. Researchers don’t know for certain, but they suspect tau may somehow play a protective role in the brains of the plunge-diving kingfishers. Now that they know more about the birds’ genetic underpinnings, they can dig even deeper to understand how those variations play out in their physiology.

“The next question is, what do the mutations in these birds’ genes do to the proteins that are being produced?” says Hackett in the statement. “What shape changes are there? What is going on to compensate in a brain for the concussive forces?”

However, they’ll need to proceed with caution, because the genetic variations they found in the fish-eating kingfishers may have nothing to do with their plunge-diving behavior. Those genes may have mutated randomly, says Tim Sackton, a geneticist at Harvard University who was not involved in the new research, to Science News’ Claudia López Lloreda. Still, he adds, the theory that tau protein may be mitigating the effects of dives on kingfishers’ brains is an “interesting hypothesis.”

More than 100 different species of kingfishers live across the globe, though they primarily inhabit warm, tropical areas. In North America, the belted kingfisher is the most common. These birds have bluish-gray feathers with a ring of white feathers around their necks and on their breasts. Females also have a rust-colored band of feathers across their breasts.

The birds—which often look like they have mohawks atop their heads—wait patiently on branches above streams and other bodies of water. When they spot a tasty fish, they dive head-first to snatch it with their long, pointy bills.

With more research, scientists might be able to learn from the kingfishers and come up with ways to protect human brains from concussions and other injuries—but any innovation like that would be in the far future.

Source: https://tinyurl.com/ms4jn25c

The Bird in the Waterfall is a celebration of the wonders of water and a lively foray into the natural history of rivers, lakes, and oceans. With engaging text and illustrations, author Jerry Dennis and illustrator Glenn Wolff explore waterfalls and seeping springs, oceans waves and tidal bores, whirligig beetles and torrent ducks, mermaids and manatees. The Bird in the Waterfall blends interesting and unusual scientific research with historical anecdotes, mariner’s tales, folklore, and personal observations to address dozens of age-old aquatic mysteries.

At the heart of The Bird in the Waterfall is a passionate appreciation for the magic, music, and poetry of water, and an appeal for the protection of this most precious of the earth’s resources.”

“Birds in the Waterfall takes you on a round-the-world tour of the water in, over and all around us. You will never look at water the same way again. Filled with facts to challenge any textbook, it nevertheless reads like an adventure novel. A great read!”

Source: https://tinyurl.com/yy7dxia
2023 Awards for CCWS

Cobb County Water System (CCWS) had many accomplishments in 2023 worth celebrating. CCWS continues to demonstrate its commitment to providing reliable and high quality affordable water, wastewater, and stormwater services. In addition to maintaining the triple AAA bond rating from Fitch IBCA, Moody’s Investors Services and Standard & Poors, CCWS received the following awards in 2023:

- Recognized as the #1 Water Utility in the south based on research conducted by an independent data analytics and consumer intelligence company
- 2023 Georgia Association of Water Professionals (GAWP) Education Program of Excellence Award recognizing superior public education programming
- 2023 GAWP Innovative Initiative Award for The Flume Smart Home Water Monitor Loaner Program
- 2023 GAWP Gold Award for the R. L. Sutton Water Reclamation Facility for complete and consistent NPDES Permit Compliance during the 2022 calendar year
- 2023 GAWP Gold QA/QC Laboratory Excellence Award recognizing outstanding quality assurance
- 2023 GAWP Platinum Award recognizing excellence in management, operation, and maintenance of the water distribution system
- 2023 GAWP Gold Award recognizing excellence in management, operation, and maintenance of the wastewater collection system
- 2023 WaterSense Excellence Award for Education, Outreach, and Promoting WaterSense Labeled Products from U.S. Environmental Protection Agency

waterSmart waterArt
Calendar Contest Winners

Cobb County middle school students used their talent to create a 2-D work of art for the 14th annual waterSmart waterArt calendar contest.

Congratulations to this year’s winners:
- Abrina C. - Simpson Middle School
- Amani W. - JJ Daniel Middle School
- Celia M. - East Cobb Middle School
- Ellie S. - East Cobb Middle School
- Gabriel S. - Palmer Middle School
- Juliana C. - Simpson Middle School
- Kathayinyi Y. - Dickerson Middle School
- Maddux C. - Durham Middle School
- Norah T. - McCleskey Middle School
- Quentin C. - Dickerson Middle School
- Taylor E. - Dickerson Middle School
- Trace G. - Simpson Middle School

Lunch & Learn

- Friday, December 15, 12:00PM - 12:45PM
  Winterize Your Pipes, In-person & Virtual
  Learn the importance of winterizing your faucets and irrigation system before the cold weather arrives. Find out what you can complete as a homeowner and what needs to be completed by a professional.

- Friday, January 26, 12:00PM - 12:45PM
  Amphibian Monitoring, In-person & Virtual
  Learn about Cobb County Amphibians species’ habitat, morphology, and vocalizations. The session includes information about our Amphibian Monitoring Workshop and program.

- Friday, February 23, 12:00PM - 12:45PM
  Stormwater Management 101, In-person & Virtual
  Learn best practices on how to manage stormwater on your property. Join Cobb County Water System’s Stormwater Managers as they share information every homeowner should know about easements, buffers, infrastructure, and more.

Top: (left to right) Lab Gold Award, WaterSense Award, Innovative Initiatives Award, Education Program of Excellence Award. Bottom left: Angie Marcus receiving WaterSense Partner of the Year Award. Bottom right: Water Conservation team with the Innovative Initiative Award.
The following volunteers have submitted data each month during the September, October, and November quarter:

- Beving - Chemical & Bacterial Monitoring on Allatoona Lake
- Bushart - Chemical Monitoring in the Sewell Mill Watershed
- Cathy Czarnonycz - Chemical & Bacterial Monitoring in the Sope Watershed
- Chatt Stream Stewards - Chemical Monitoring in the Chattahoochee Watershed
- Children of the Deer - Chemical & Bacterial Monitoring on Olley Creek
- Cobb Police Community Affairs Unit - Chemical Monitoring on Butler & Proctor Creeks
- Cobb Progressives - Chemical & Bacterial Monitoring on Noonday Creek
- Concord Woolen Mill - Chemical Monitoring on Nickajack Creek
- Crooked Branch - Chemical & Bacterial Monitoring on Crooked Branch
- Donna - Chemical Monitoring in the Olley Creek Watershed
- Ernests - Chemical Monitoring on Ward Creek
- Friends of Mulberry Creek - Chemical & Bacterial Monitoring on Mulberry Creek
- Fox Creek - Chemical Monitoring in the Willeo Watershed
- Georgia Lake Monitoring - Chemical Monitoring on Acworth Lake
- Good Guy Greg - Chemical Monitoring in the Proctor Watershed
- Grams Collins Gals - Chemical Monitoring in the Willeo Watershed
- Keep Smyrna Beautiful - Chemical Monitoring in the Nickajack Watershed
- Lakewood Colony - Chemical & Bacterial Monitoring in the Rubes Watershed
- Lesterosa - Chemical Monitoring in the Nickajack Watershed
- The Longos - Chemical Monitoring in the Pickett’s Mill Watershed
- Pic - Chemical Monitoring on Noses Creek
- Pope High School - Chemical Monitoring in the Sewell Mill Watershed
- Richard’s Creek - Chemical Monitoring in the Allatoona Watershed
- Sewell Mill @ McGarrity - Chemical & Bacterial Monitoring in the Sewell Mill Creek Watershed
- Sierra Club Centennial Group - Chemical, Bacterial & Macro Monitoring in the Rottenwood Watershed
- Simon Locke - Chemical, Habitat & Bacterial Monitoring on Butler & Proctor Creeks
- Stephen Thomas - Bacterial Monitoring on Noses Creek
- Team Salty - Chemical Monitoring on Sope Creek
- Village N. Highlands Subdivision - Chemical & Bacterial Monitoring in the Willeo Watershed
- The Wood Family - Chemical & Bacterial Monitoring on Poplar Creek

Thank you for your hard work and dedication!

Join CCWS’s Outreach Volunteer Team!

Cobb County Water System’s Outreach Volunteers give back to the community by assisting with simple, hands-on programs at local events.

- Gain the knowledge and the skills to prevent water pollution and conserve water.
- Earn community service hours while building your professional network.
- Connect with a circle of individuals that care about the environment, just like you!

Volunteers must attend a set of six trainings offered on Thursdays, April 18 & 25 and May 2, 16, 23 & 30, from 6:30pm to 8:00pm.
To learn more and apply, visit: [www.cobbcounty.org/wateroutreach](http://www.cobbcounty.org/wateroutreach).
Application Deadline: March 15, 2024
UPCOMING VOLUNTEER OPPORTUNITIES

RAIN GARDEN WORK DAY
Join us for a hands-on volunteer work day at the demonstration Wildlife & Rain Garden. Includes a brief orientation site tour, and some basic garden training. All gardening tools and supplies are provided.

THURSDAY, DEC 7
9:00AM - 11:00AM

THURSDAYS, JAN 11, 18, 25
9:00AM - 11:00AM

THURSDAYS, FEB 1, 8, 15, 22
9:00AM - 11:00AM

Cobb Water’s Rain Garden
662 South Cobb Drive
Marietta, GA 30060

ADOPT-A-STREAM
Learn how to evaluate the health of a stream by assessing nine characteristics vital to its habitat and determine how readily a stream might support aquatic organisms.

VISUAL HABITAT MONITORING
SATURDAY, DEC 9
9:00AM - 12:00PM

Cobb Water’s Quality Lab
662 South Cobb Drive
Marietta, GA 30060

MACROINVERTEBRATE MONITORING
SATURDAY, JAN 27
10:30AM - 3:00PM

CHENICAL MONITORING
THURSDAY, FEB 15
6:30PM - 9:00PM

HABITAT DEMO WORKDAY
On this workday, we’ll be working to remove invasive plants from the Noonday Creek Habitat Demonstration Site. This is a great opportunity to see and participate in an active stabilization project.

TUESDAY, JAN 16
10:00AM - 12:00PM

Noonday Creek Trailhead
3001 Bells Ferry Road SE
Marietta, GA 30066

ADOPT-A-STREAM
Monitoring water quality can help identify possible sources of pollution. Learn how to collect chemical data from your local stream. Volunteers must pass a written and hands-on test to become certified volunteers.

TUESDAY, JAN 16
10:00AM - 12:00PM

MACROINVERTEBRATE MONITORING
SATURDAY, JAN 27
10:30AM - 3:00PM

CHENICAL MONITORING
THURSDAY, FEB 15
6:30PM - 9:00PM

Private Pull
Privet is a non-native, invasive plant that out-compets native species. We’ll be removing privet from the landscape. Join us to help restore habitat and native plant species!

SATURDAY, DEC 9
10:00AM - 12:00PM
Sweat Mountain Park

SATURDAY, JAN 6
10:00AM - 12:00PM
Heritage Park

SATURDAY, FEB 24
10:00AM - 12:00PM
Leone Hall Price Park

ADOPT-A-STREAM
Monitoring water quality can help identify possible sources of pollution. Learn how to collect chemical data from your local stream. Volunteers must pass a written and hands-on test to become certified volunteers.

TUESDAY, JAN 16
10:00AM - 12:00PM

Chemical Monitoring
Thursday, Feb 15
6:30PM - 9:00PM

Cobb Water’s Quality Lab
662 South Cobb Drive
Marietta, GA 30060
Events in BLUE are Cobb County Water sponsored events.

More information can be found on our Calendar at www.cobbstreams.org.