

CHATHAM COUNTY CONNECTION



April 2009



Pete Liakakis
Chairman



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District 1



James J. Holmes
District 2



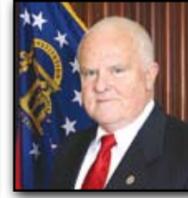
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Patrick K. Ferrell
District 4



Harris Odell, Jr.
District 5



David M. Gellatly
District 6



Dean Kicklighter
District 7 Chairman Pro Tem



Dr. Priscilla D. Thomas
District 8 Vice Chairman

Chatham County's Green Initiative The Greenest County in Georgia

Being the greenest County in Georgia was easy at first. Tomochichi and his fellow Yamacraw kept it that way, and General Oglethorpe's vision for an agrarian society on the edge of the New World maintained that foundation. Established in 1777, Chatham County has survived revolution, yellow fever, slavery, civil war, famine, industrialization, depression, world war, prosperity and the internet. And yet our greatest challenge may still lie ahead.

Sustainability is a longer way of saying "green" these days. What it means is that we can meet the needs of today without starving the future. It is clear to most of us that the 21st Century will require a new way of thinking about our economy. The economy that we built (and loved) here in our county was based upon almost unlimited resources and energy. But now we have grown to the point where we cannot continue to consume those resources without risking the destruction of them for our children and grandchildren. We must now learn how to survive, and thrive, on our ability to manage what we have, and preserve what we have left. It does not mean that we need to go back to the way that Tomochichi

and Oglethorpe lived, but it does mean that we need a new plan for how to grow and develop wisely.

The Chatham Environmental Forum (CEF) was created in 1989 to help mediate the conflicts between environmentalists, industry and local governments. It grew from consensus, and was a voice for rational dialog in times of hot controversy. Recently, the CEF was challenged by County Commissioners to develop a plan for making (again) Chatham County the "greenest" in Georgia. That plan grew from thousands of hours of consensus dialog among citizens and leaders from all walks of Chatham County life. The plan presents a strategy for land use, energy, transportation, climate change, creative infrastructure, water management, and solid waste. It also describes specific tactics and timetables for achieving the strategic goals. All Chatham County elected officials, and citizens, should read this plan and decide how to put it into action—soon. You can do so by looking at www.ChathamCounty.org today.

We will have disagreements over the specifics as we implement the plan. Get-

ting it right sometimes takes time, as it will for the curbside recycling plan in the unincorporated area of Chatham County, but we must get these tactics right. The point of having a plan is to make sure that we have a winning strategy first. Ignoring the issues of sustainability, or "going green", cannot be dismissed as just a passing fad, or a cliché. Our economy now, and the

future of our children and their children, depends on us to make this work. Please join in, read the plan, and then let your local elected officials know that you want smarter zoning, pedestrian and bicycle friendly roads, and energy efficient government buildings. Let's

work together to make Chatham County the first in Georgia again!

*Patrick Shay,
Architect and Chatham County Commissioner*



Chatham County will Celebrate National County Government Week

Chatham County will celebrate National County Government Week (NCGW) May 3-9 with several community outreach events scheduled. There will be a kick-off at the Bull Street Library on Sunday, May 3rd, which will include a performance by the Puppet People. On Friday, May 8th, the Bull Street Courthouse will hold an Open House with entertainment, food and giveaways. The celebration will end with a County Fair Day at the Oglethorpe Mall to include a recycling event on Saturday, May 9th. With identity theft on the rise this will be a great time to have your sensitive documents professionally shredded by Public Works and Park Services along

with ShredEx. There will also be entertainment and other craft workshops for children to enjoy. Employees of Chatham County will visit various schools throughout the County to showcase services and important issues affecting the community. Special emphasis will be on Chatham County's strategy to become the "Greenest County in Georgia."

Sponsored by the National Association of Counties (NACo), NCGW was first celebrated in 1991 to raise public awareness and understanding about the roles and responsibilities of the nation's counties.

The theme for this year is "Greening Our Future."

NCGW public events include:

- Kickoff at the Bull Street Library, May 3rd
- Open House of the Bull Street Courthouse, May 8th
- Chatham County Fair Day at the Oglethorpe Mall, May 9th

A complete list of events will be available at www.chathamcounty.org.

Chatham County is a member of the National Association of Counties (NACo), the only national organization that represents county governments in the U.S. Based in Washington, D.C., NACo provides essential services to the nation's counties. It advances issues with a unified voice before the federal government, improves the public's understanding of county government, assists counties in finding and sharing innovative solutions through education and research and provides value-added services to save counties and taxpayers money. More information about NACo is available at: www.naco.org.

Message from the Chairman

Fellow Citizens

One of the goals for this term of the Chatham County Commission is the greening of Chatham County. Towards the end of 2008 Chatham County closed on acquisitions of three more parcels which add to the county's greenspace and open space program. The mainstay of these acquisitions, a purchase of 640 acres stretching from S.R. 204 to the Ogeechee River, becomes part of the lower Ogeechee River conservation corridor. This brings the total greenspace acquisitions to more than 1,000 acres during the past four years. This commission has helped to assemble more than 1,500 acres, which is the largest single assemblage of county property since the 1887 acquisition which led to the development of Bacon Park. The lower Ogeechee River conservation corridor not only means greenspace goals and helps to preserve a valuable river corridor from development, but also supports our commitment to

Hunter Army Airfield and Fort Stewart by helping to protect their flight line.

With this commission's adoption of the Resources Protection Ordinance and appointment of a Resources Protection Commission, the structure remains in place to further the achievements of the past four years. Along a similar important course, the commission will also be hearing the report soon from the Chatham Environmental Forum on its recommendations for Chatham County to become "the greenest county in Georgia."

Our commitment to green does not end there. In January, the commission was presented with a staff plan to consider curbside recycling in the unincorporated areas. Furthermore, we are moving forward in partnership with the City of Savannah to develop a joint recycling and education center on Eisenhower Drive, which opened on Earth Day. As an organization,

the county has committed to a partnership with "Sustainable Georgia" with a goal of decreasing energy consumption and waste production by 20%. This admirable goal not only shows the county's commitment, but also provides the important benefit of reducing our costs to the benefit of the community's taxpayers.

While this commission will continue its local initiatives to help make our community a better place to live and work, we will also continue to work on issues and programs in which we must depend upon the decisions of others. We will work with our state legislative delegation to continue the fight against unfunded state mandates. We will monitor with increased diligence recent actions by the state that severely impact the delivery of vital mental health services to our citizens. Tough economic times affect all levels of government, but we cannot sit by while the state attempts to solve its problems by curtailing funding

of vital services which then puts it on the backs of those of us at the local level.

As you can tell, the opportunities to provide better services are many. The challenge to meet them with fewer resources requires experience, the ability to work together for the common good, the support of a professional staff and a track record of accomplishment. That is what you got when you re-elected this board of commissioners.

Chairman
Pete Liakakis



A NEW Green Library

Chatham County's first new library in 20 years will open this summer.

Chatham County's first new library in 20 years will open this summer. Live Oak Public Libraries' new 50,000 square foot building is located on Rio Road at Savannah Mall and will bring long-anticipated library services and programming to the county's southwest quadrant. The iconic building will house the regional branch of the Library for the Blind and Physically Handicapped, serving 10 area counties including the library's service area of Chatham, Effingham and Liberty counties.

The first floor of the building will feature a large auditorium available for public use; a spacious, casual reading room; and a tree-filled children's department with designated areas for special activities and plenty of room for both reading and fun. Comfortable seating will be offered throughout the building and group study rooms will surround the large fiction, non-fiction and reference collections housed on the light-filled second floor. With more than 100 public access computers, computer instruction, and access to free Wi-Fi throughout the building, our public library system continues its commitment to bridge the digital divide for our citizens of all ages.

A Green Library

One of the most exciting aspects about the new facility is its LEED (Leadership in Energy and Environmental Design) certification. According to the U.S. Green Building Council, LEED for new construction offers many benefits including environmental, economic and occupant-oriented performance and health advantages. LEED certified projects cost less to operate and maintain, are energy- and water-efficient, and contribute to occupant health and productivity. LEED points are awarded based on materials and resources; water efficiency; energy and atmosphere; sustainable sites; indoor environmental quality; and innovation and design. The new library is assured to receive a silver certification and perhaps even a gold. Some of the qualities that will help our new library earn its certification include:

Lighting – Windows are featured on the north and south ends of the building to harvest maximum daylight while avoiding the heat associated with east and west facing windows.

Throughout much of the building, lights will be on sensors. During the daylight hours, interior lights may be off entirely as enough natural light will be provided through

the strategic use of glass. As light conditions darken outside, sensors will adjust light levels accordingly, automatically turning lights on or off as necessary to maintain optimum light levels.

L.E.D. (light emitting diode) lights have been planned for appropriate areas of the building as they present many advantages over traditional light sources including lower energy consumption, a longer lifetime, improved robustness, smaller size and faster switching.

Water – The use of waterless urinals will reduce water consumed for flushing. Dual flush toilets will further serve to reduce water consumption. Landscaping will consist of native plantings that thrive in our local climate and have reduced watering requirements.

Finishes – Renewable resources such as bamboo will be featured throughout the building. The use of low Volatile Organic Compound (VOC) paints and adhesives will significantly reduce the amount of chemicals present in the building. Using a local furniture manufacturer of chairs, tables, etc., made of sustainable materials reduces delivery time and cost therefore lowering the carbon-footprint associated with its delivery.

Materials with recyclable contents are used throughout the building.

Other – The second floor of the building has been designed with the HVAC in the floor to reduce the amount of volume of space above that needs to be cooled or heated. The building has been designed to be user intuitive and staff efficient with excellent sight lines within the interior public spaces and well-placed, easily accessed service points for library customers. Recycling of materials as much as possible and alternative transportation resources, such as easy access to CAT bus stops and bicycle parking are planned for our customers.

The new library was designed by Greenline Architects of Savannah and The Design Group. Choate Construction is the contractor.

To see photos of the new library under construction, visit www.liveoakpl.org and check out the photo gallery.



Go Green With The CrimeStoppers Team

CrimeStoppers of Savannah-Chatham has joined other local agencies in "going green". Innovative technologies have allowed CrimeStoppers to virtually eliminate an abundant use of paper previously used for tip taking. The CrimeStoppers Crime-Fighting Machine has been "green" since January 1, 2009 due, in large part, to the implementation of the new "TipSoft" program which enables CrimeStoppers to directly enter received information into its database. The tips are then sent by email or paperless fax to the appropriate agency instantly! In addition, tipsters are able to send tips via email or text messaging directly utilizing the "TipSoft" program. The majority of CrimeStoppers paper usage came from tips; however since our new "green" lifestyle we have cut that usage by 80 percent! With that, CrimeStoppers has therefore reduced unnecessary use of printer ink. The file folders once used to organize the massive amounts of paper-generated tips are being put to rest. Going "green" has made tip taking easier and more efficient with respect to the quality of information within the tip. Accessing the tips is much more orderly and time-friendly, but if necessary they are ready to print at the click of a button. In the instance where printing is needed, both sides of the paper are utilized ultimately cutting paper usage in half!

"Going green" is simple and it can save you green in the long run. Such a small sacrifice on our part greatly impacts the environment's future well-being. Join the CrimeStoppers team and go green, where reporting anonymously doesn't have to be an environmental concern.

Nicole Bush,
CrimeStoppers Intern



MPC Staff to Discuss Zoning at Community Meetings

Few local ordinances have a greater impact on our everyday lives than the zoning ordinance, but many of us are unfamiliar with zoning. Quite simply, zoning regulates how our community can be developed; in turn, this determines where we live, work, shop and recreate.

To help the public better understand zoning, staff of the Metropolitan Planning Commission will hold five community meetings in April and May (see the below box for dates and locations). Learn about the purpose of zoning, its relationship to other development ordinances, the various zoning-related reviews, and the commissions and boards who are responsible for those reviews.

Staff will also speak about the Unified Zoning Ordinance, an ambitious project that will update and unify the zoning ordinances for unincorporated Chatham County and the city of Savannah.

To learn more about the Metropolitan Planning Commission, zoning, and the Unified Zoning Ordinance, please visit www.thempc.org, or call 651-1440.

Zoning Meeting Dates (6:00-7:00PM)
April 21 (Tuesday)
Crusader Community Center
8111 Coffee Bluff Villa Road

April 23 (Thursday)
Frank Murray Community Center
160 Whitemarsh Road

April 28 (Tuesday)
Hesse Elementary School
9116 Whitefield Avenue

April 30 (Thursday)
Southwest Middle School
6020 Ogeechee Road

May 5 (Tuesday)
Metropolitan Planning Commission
110 East State Street

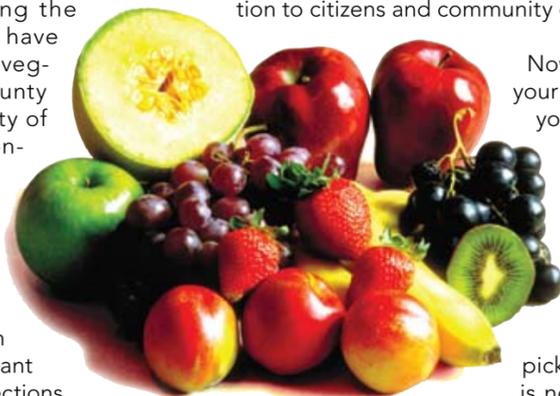
Chatham County Cooperative Extension News Clips

Springtime is the rebirth of nature and our beautiful coastal environment here in Chatham County is the perfect place to reconnect with the great outdoors. The University of Georgia Cooperative Extension in Chatham County invites you to utilize the many services, programs, and upcoming events offered during the Spring 2009. Whether you need to have your soil tested before you plant your vegetable garden, or need to ask our County Agents for technical advice on a variety of topics including: nutrition, energy conservation, health & financial wellness or 4-H programs, your Chatham County Cooperative Extension personnel is available to assist you at 912-652-7981 or by email at uge3051@uga.edu.

If you are planning to plant your own vegetable garden this season, you will want to start by completing a soil test. The directions can be found on our website at www.ugaextension.com/chatham. Your local County Extension office has a variety of vegetable gardening resources available to use to create a successful garden and a variety of gardening horticulture and native plant resources are also available. Don't forget the 72 garden plots available for public use located at Chatham County's Scott Stell Park. Reserve your free space for your Spring or Fall vegetable gardens by calling 925-8694 or 652-6780.

Remember, it is "So Easy to Preserve Your Harvest from Your Garden" by using the food preservation publications and resources through your Chatham County Cooperative Extension office. Tune to Chatham County TV, Comcast channel #16 on Saturday mornings from 7:00 – 9:00 AM to learn more about gardening and food preservation.

This Spring 38 citizens are participating in the 2009 UGA Cooperative Extension Master Gardener Program. The twelve week train the trainer program prepares citizens to become Chatham County Extension Master Gardener volunteers to outreach throughout the County to provide gardening education to citizens and community organizations.



Now, if you do not want to grow your own fruits or vegetables, but you want to enjoy the harvest of the great flavors from the garden, then visit local pick your own operations and farmers markets located in the County and Coastal Georgia this Spring. The University of Georgia Bamboo Farm and Coastal Gardens pick your own strawberries field is now open for your enjoyment and blackberries will be available in

early June. Mark your calendar for Sunday Supper in the Strawberry Patch set for April 26th from 5:00 – 7:00 PM. and call 912-652-7981 to make your reservations. The Bamboo Farm and Coastal Gardens 50 acres provide free access to citizens with an opportunity to explore the demonstration gardens, including the xeriscape garden that showcases best practices and plant selection to utilize water reduction principles in your home landscape. This facility is a great place to enjoy with family and friends, so pack a picnic lunch and explore this green space for a visit with Mother Nature. Visit the Bamboo Farm & Coastal Gardens website at www.ugaextension.com/bamboo for events and hours of operation.

Jackie Ogden

Chatham County Extension Coordinator (April 2009)

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Old Mosquito Control Facility Getting a Makeover to Become a Super-Center for Recycling

Most often when the word recycling is used, what comes to mind is a variety of household materials—cans, paper, cardboard, plastic, glass. But, Chatham County's Environmental Program Coordinator, David Nash thinks about recycling on a much grander scale—facility recycling.

The old Mosquito Control Facility located on Eisenhower Drive is being "recycled" and by Earth Day, the ugly, over-grown caterpillar will have begun its metamorphosis into what will eventually be a one-stop recycling, resource conservation and education center that will serve the entire community.

"At present, it's a 'work in progress,' explains Nash, as he looks around at the transformational work already underway, "When we're finished, we will have a facility that will offer drop-off recycling serving the Southside, classroom space, an on-site educator, community workshops and much more. Due to the central location of the facility, we are all incredibly excited about this project and its environmental impact in the community."

The Resource Conservation Education Center is the first of its kind facility in the area. It is a joint venture between Chatham County and the City of Savannah. Chatham County is providing the facility and staffing. The City of Savannah is providing the stationary compactors and containers that will be used for on-site recycling. The City will also provide transportation for the recycled material to the end markets. The proceeds from the sale of recycled materials will be shared by the two entities.

Earlier this year, Chatham County Board of Commission Chairman Pete Liakakis made the development and opening of the Resource Conservation and Education Center by Earth Day one of the goals mentioned in his inaugural address. Work on

mon: Used motor oil, electronics, lead acid batteries, rechargeable batteries, CD/DVD's, and toner and ink cartridges.



One of the primary goals of the facility is to be a working laboratory to showcase renewable products that can successfully be incorporated into home and business settings alike such as: solar, VOC-free bamboo flooring and wall coverings, ply-boo, recycled glass tiles, 100% recycled sheetrock, low-flow plumbing fixtures and wheat-cored doors, HVAC SEER-16 individualized room heating/cooling systems, VOC-free interior and exterior paints, 100% recycled roofing shingles, energy conserving lighting, spray foam roofing insulation, and a solar water heaters to provide on-site hot water. The idea of the center is to provide actual applications of these products in a real world setting. Initial "green" guidance and input for the project was provided by Commissioner Pat Shay, who is a local architect in the Savannah area.

In order to incorporate "green building concepts" into this rehab project, a lot of planning is currently going on. This is particularly true with regard to converting to solar power. "The process is not quite as straightforward as simply deciding to "go solar," explains Nash. "You have to be able to entirely power your own facility using solar or you have to be on the grid. Either all the solar power you generate goes back to Georgia Power and you're, technically on the grid, or you're generating all your own solar power and you're not on the grid at all. It used to be that you could switch back and forth."

In the end what the Resource Conservation Education Center is hoping to do because of its unique situation is by working with Georgia Power and its own electrical engineers design a switch that will allow the Facility to do both. Powering lights, hot water, office power requirements and some of its recycling equipment with solar power and the HVAC system from the Georgia Power grid.

There also will be changes to the parking area including incorporation of some type of pervious paving that will serve as a transition to on-site xeriscaped demonstration areas that will all be designed with the assistance of the Chatham County Cooperative Extension Service. All of the landscaped areas will be xeriscaped, capturing rain water from a guttering system that will direct the water to cisterns for on-site irrigation needs.

In addition, the Resource Conservation Education Center will serve as host to continuous on-site projects and workshops open to all ages, including individuals, families and groups in the community. Vendors and knowledgeable professionals with various resource conservation backgrounds, experience and expertise will present hands-on workshops and lectures about products and practices demonstrated in the Center. Xeriscaping demonstration areas as well as a variety of lectures and workshops for individuals and families will be offered to share knowledge and practical applications for projects to then be done in homes and businesses throughout the community.

The Resource Conservation Education Center will focus on rotating community artists or interns to do "found object" art demonstrations that shows the artistic process involved in developing individual works of art. Eventually, there will be Artisan rental space with rotating exhibits of reclaimed art projects.

The Center will have an on-site Solid Waste Programs Coordinator who will be responsible for the day-to-day management of the site. In addition, this individual will also be responsible for conducting facility tours and coordinating educational field trip with the Savannah-Chatham County School System with hands-on environmental/resource conservation lesson plans by grade level available by request. These lessons plans will be available for both on-site activities with classes visiting the Center, and as ancillary activities to be used by classroom educators after field trips to the Center to enhance the student's learning experience.

What part can individuals or businesses who are interested in involved in the metamorphosis of this facility into the Resource Conservation Education Center help if they are interested? "Eventually, we would like to have a cadre of volunteers to help staff the center and provide assistance to others in correctly sorting the materials brought in for recycling and to provide general information and site tours," said David Nash, "and to help out with demonstration workshops." "We also need professionals and qualified individuals with environmental, conservation, horticulture or related topics to give workshops and community demonstrations at the Center. Potential topics are almost limitless. We also would like artists, artisans or even hobbyist who utilize "found" or "recycled" or reusable materials in their art to work in and on the facility."

Interested individuals can contact David Nash at Chatham County Public Works and Park Services at 912-652-6856.



Excitement is increasing, as a community eyesore is getting cleaned up and having a breath of new life.

the facility began in earnest in early January, 2009. The preliminary opening for the facility is slated for Earth Day, April 22, 2009. Between now and then, however, there is much work to be done.

On the 'light side' of all the many changes happening on the site are the facelift and cosmetic changes that include painting and re-roofing. Internal building changes include: New office space, one class room and an exhibit room area along with a multiple purpose room.

On-site there will be an 80' X 80' covered recycling drop-off area to keep people out of the weather as they do their drop-off recycling. A full line of drop-off recycling opportunities will be offered to include: aluminum and steel cans, scrap metal, paper, cardboard, magazines, paperbooks, telephone books, pasteboard, plastics, No. 1 & No. 2, glass, clear, brown and green. Also, some recycling opportunities for items that are not so com-



Stationary compactors and containers are ready to be placed at the new Resource Conservation and Education Center.

Thank You Morgan Dewberry!

In the last issue of the Chatham County Connection The Office of Child Support Services announced that they were collecting stuffed animals that were to be delivered to patients in Backus Children's Hospital on Valentine's Day. Morgan Dewberry, a second grade student at St. Andrew's School, answered the call and along with her classmates collected 44 stuffed animals for "Operation Bearable Hugs"

For their effort the members of The Office of Child Support Services hosted a pizza party for Morgan and her classmates and presented them with a plaque that will hang in their classroom recognizing their effort and hard work.



John Strickland of the Fatherhood Program presents Morgan with her plaque.



Shakela Camp, Martha Vanvleck and Christy Carpenter deliver the "Bearable Hugs" to children at Backus Children's Hospital.

Board of Commissioners Meeting Schedule

The Board of Commissioners meets twice a month on Fridays at 9:00 a.m. The meetings are held in the Commission Chambers of the Old Courthouse, 124 Bull Street, Second Floor, and are open to the public. The agenda for the meeting is available on Wednesday before the Friday meeting and can be picked up at 124 Bull Street, Suite 220.

The meetings are broadcast live on Comcast Channel 16 and are replayed at 6:00 PM on Friday and Monday and at 3:00 PM on Sunday.

Chatham County Commission Meeting Schedule:

- April 24
- May 8 & 22
- June 12 & 26
- July 10 & 23
- August 14 & 28
- September 11 & 25
- October 16 (one meeting only)
- November 6 & 20
- December 4 & 18

Tornadoes 101

A tornado is a rapidly rotating column of air usually descending from a large thunderstorm. Tornadoes are the most violent storms on the surface of the Earth; they have the highest wind speeds of any weather phenomenon. The strongest tornadoes are more intense than the biggest hurricanes, but they affect smaller areas.

U.S. tornadoes typically move from southwest to northeast at speeds up to 60 mph, with rotating wind speeds sometimes in excess of 300 mph. Only slightly more than one percent of the U.S. tornadoes have wind speeds in excess of 200 mph, but they are responsible for over 70 percent of deaths.

The core of the whirling vortex is usually less than one half mile wide and acts like a giant vacuum cleaner sucking up air and objects. Funnel clouds initially form thousands of feet up in the atmosphere, and many never touch the ground. Tornadoes may touch ground only briefly, or they may stay in contact for many miles, moving at an irregular path toward the northeast, but with abrupt changes in direction.

How a Tornado Works

What is necessary to turn an ordinary thunderstorm into a tornado-spinning monster? In the United States, several conditions typically occur simultaneously:

1. A northerly flow of marine tropical air from the Gulf of Mexico that is humid and has temperatures at the ground in excess of 75 degrees Fahrenheit;
2. A cold dry air mass moving down from Canada or out from the Rocky Mountains at speeds in excess of 50 mph;
3. Jet-stream winds racing east at speeds in excess of 150 mph.

These three air masses, all moving different directions, set up shearing conditions, imparting spin to a thundercloud that can cause tornadoes to form.

But most large thunderclouds do not spin off tornadoes. What is different about those clouds that do? The question cannot be answered exactly, but scientists are beginning to see patterns. In an ordinary single-cell thunderstorm, wind shear may tilt the thundercloud mass and it may grow into a super-cell thunderstorm. The tilt allows warm air to rise on the advancing or leading side of the cloud and this is where most of the rain falls. On the rear or trailing side, downdrafts of cool air exist and it is here that tornadoes usually form.

Rotation may develop in a wide zone in the thunderstorm; then as the rotating core pulls into a tighter spiral, its speed increases dramatically, its angular momentum is preserved. This principle is analogous to ice skaters spinning with arms outstretched who, pulling their arms toward their bodies, spin faster. In other words, the smaller the diameter of a rotating mass, the faster it spins.

The rotating wind speeds of a tornado are highest a few hundred feet above the ground. This is most likely due to the winds at ground level being slowed by the frictional resistance of earth, trees, buildings, cars and such. Once formed, tornadoes derive additional energy from electrical discharges of lightning within the clouds and from latent heat released by heavy rainfall at the cloud's front.

Tornadoes in the United States

The interior of the United States is the tornado capital of the world. It is over these gently sloping lands that air masses collide, spinning out tornadoes that usually head northeast under the influence of the polar jet stream.

Tornadoes can occur at any time of the year but are most common in late spring and early summer. Tornado deaths in the United States are most common in the spring. The furious energy of these twisters generates wind speeds that stretch one's imagination! Wind damages are gauged by the Enhanced Fujita Scale. Tornadoes with wind speeds exceeding 260 mph cause incredible damages!

Tornadoes have three main destructive actions:

1. High wind speeds blow away buildings and trees.
2. Winds rushing up the funnel have a lifting force in the updraft.
3. An explosive situation exists because of the differences in air pressure between the very low pressure inside a tornado funnel and the higher pressures outside it. (For example: a closed-up building contains air under higher pressure; the passage of a low pressure tornado funnel can cause an un-

ventilated building to explode outward due to the difference in air pressure!)

What Can Be Done

Tornadoes are an omnipresent threat that must be faced. Either we play Russian roulette and hope they don't hit buildings, or else buildings need to be designed and built to withstand tornado forces. High winds are a difficult test for any structure, but when a tornado passes over a building, there can be a 10 to 20 percent drop in air pressure, causing tightly closed buildings to explode. Some of the exploded debris is sucked up with the updrafting air, which may be rising at over 100 mph. Design with nature, or run the risk of dying by nature!

Who dies in tornadoes? Tornadoes preferentially kill:

1. the elderly
2. mobile home residents
3. occupants of exterior rooms with windows
4. those unaware of broadcast tornado alerts and sirens.

Residents of frame houses can run into interior rooms to gain some protection; NOAA weather radios will provide the most accurate and up-to-date information from local officials. But where do mobile home residents run to hide? There are no interior rooms and therefore it is essential that ALL mobile home residents purchase a NOAA weather radio to keep up with timely and accurate weather advisories. Almost half of the Americans killed by tornadoes die inside their disintegrated mobile homes.

Are you safer in a car or a mobile home? Many mobile homes can be tipped over by 80 mph winds whereas many modern cars have low centers of gravity and streamlined shapes that require wind speeds of about 120 mph to tip over. Also most cars are built to provide some protection during a rollover or collision. Many mobile home residents facing a tornado threat would do better to run outside and sit inside of their cars.

Tornadoes and Cities

Cities create their own weather. In the 1800s it was recognized that Berlin, London and Paris were warmer than the surrounding countryside. A study of Atlanta shows it to be an urban heat island with night time temperatures up to 18 degrees Fahrenheit warmer than the adjoining areas. Atlanta has developed by cutting down 380,000 + acres of forest and replacing it with buildings and roads. The urban concrete, asphalt and stone absorb heat during the day and radiate heat at night. The warm air rising above a city creates its own low-pressure cell, a convecting plume of heat that can rise, cool, condense and form thunderstorms.

There is a commonly heard tale that tornadoes never strike big cities. It is a myth; remember Atlanta in 2008? The United States averages about 1,200 tornadoes per year. Most of these tornadoes occur in the central states where there are few big cities available to strike. Cities cover very little ground in a large region, thus they are small targets. Yet in the three years from Spring 1997 to Spring 2000, approximately 3,600 tornadoes occurred and 10 of them struck large metropolitan areas:

12 May 97	Miami, FL	F1	0 deaths
8 Apr 98	Birmingham, AL	F5	33 deaths
16 Apr 98	Nashville, TN	F3	1 death
21 Jan 99	Little Rock, AK	F3	3 deaths
9 Apr 99	Cincinnati, OH	F4	7 deaths
3 May 99	Oklahoma City, OK	F5	42 deaths
3 May 99	Wichita, KS	F4	6 deaths
11 Aug 99	Salt Lake City, UT	F2	1 death
8 Mar 00	Milwaukee, WI	F2	0 deaths
28 Mar 00	Fort Worth, TX	F2	4 deaths

It's Up To YOU!

Each year, many people are killed or seriously injured by tornadoes despite advance warning. Some did not hear the warning while others received the warning but did not believe a tornado would actually affect them. The preparedness information in this article, combined with timely severe weather watches and warnings, could save your life in the event a tornado threatens Chatham County.

After you have received the warning or observed threatening skies, YOU must make the decision to seek shelter before the storm arrives. It could be the most important decision you will ever make.

Tornado Safety What YOU Can Do!

Before the Storm:

- Know the difference between a Tornado WATCH and a Tornado WARNING:

A **Tornado WATCH**: Tornadoes are possible in your area. Remain alert for approaching storms.

Tornado WARNING: A tornado has been sighted or indicated by weather radar. If a tornado warning is issued for your area and the sky becomes threatening and/or you hear a loud roar similar to a freight train, move to a pre-designated place of safety.

- Develop a plan for you and your family for home, work, school and when outdoors.

- Have frequent drills.

- Know the county in which you live, and keep a highway map nearby to follow storm movement from weather bulletins.

- Have a NOAA Weather Radio with a warning alarm tone and battery back-up to receive warnings.

- Listen to LOCAL radio and television for information.

- If planning a trip outdoors, listen to the latest forecasts and take necessary action if threatening weather is possible.

If a **Warning** is issued or if threatening weather approaches:

- In a home or building, move to a pre-designated shelter, such as a basement.

- If an underground shelter is not available, move to an interior room or hallway on the lowest floor and get under a sturdy piece of furniture.

- Stay away from windows.

- Get out of automobiles and lie in a ditch while covering your head.

- Do not seek shelter underneath a highway overpass.

- Do not try to outrun a tornado in your car; instead, leave it immediately and find a secure building to take shelter.

- Mobile homes, even if tied down, offer little protection from tornadoes and should be abandoned.

Chatham Emergency Management Agency (CEMA)

Emergency Warning Siren

CEMA has completed the installation of Emergency Warning Sirens throughout the County.

This siren system is used by CEMA to alert residents of potentially dangerous conditions. Upon activation of this system, the siren will produce a steady 3-minute tone which indicates an emergency condition exists in your area.

You should seek shelter and tune to a local radio or television station for more information.

This Emergency Warning System is scheduled to be tested at noon the first Wednesday of each month. If you would like to receive an email notification of scheduled siren tests, subscribe to CEMA Alert by visiting www.ChathamEmergency.org.

Emergency Warning Siren System

A three minute siren heard outside. Respond by seeking shelter in a sturdy building and listening to LOCAL radio, NOAA weather radio or LOCAL television stations for detailed instructions.

Tornado Safety

Tornado WATCH

Weather Conditions are Right for Tornado

Tornado WARNING

Tornado Sighted or Indicated on Radar
IMMEDIATE DANGER!

Chatham County Sirens activated during Tornado WARNING. If you hear sirens and a loud roar similar to a freight train:

Go to interior room with no windows - put as many walls in between you and the outside. If possible, get underneath a large table or pull a mattress on top of you. If driving, get inside of a sturdy building or lie face down in ditch while covering head. Do not outrun tornado and do not take shelter under an overpass. If in a mobile home, LEAVE IMMEDIATELY and go to a sturdy building. Listen to local radio or TV for instructions from local officials.

Hazardous Materials Shelter-in-Place

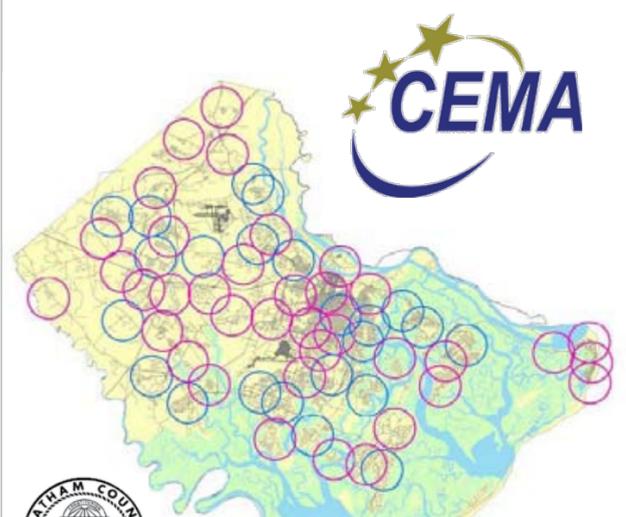
If a hazardous materials spill has occurred and local officials advise you to shelter-in-place:

Go inside and seal one room (safe room) with plastic sheeting, wax paper or aluminum foil and duct tape so contaminants cannot enter. Close and lock all windows and vents and turn off all fans, heating or cooling systems. Close off nonessential rooms such as storage areas, laundry rooms and extra bedrooms. Close the fireplace damper. Fill up bathtubs with water, and turn off the intake valve to the house. If you are told there is danger of explosion, close the window shades, blinds or curtains. Do NOT go outdoors until emergency officials have cleared the area.

Hazardous Materials Evacuation

If a hazardous materials spill has occurred and local officials advise you to evacuate:

Listen to local radio or TV to make sure the evacuation order applies to you and if you are to evacuate immediately or if you have time to pack. Stay tuned to local radio or television for information on evacuation routes, shelters and procedures. Take your disaster supply kit. Evacuate immediately. Take your pets with you. Check on neighbors to make sure they have been notified, and offer help to those with disabilities or other special needs. Take only one vehicle to the evacuation site. Close your car windows and air vents, and turn off the heater or air conditioner. Return home ONLY after advised by LOCAL emergency response officials.



Siren Map

Blue Circle = Existing Siren

Pink Circle = Siren Installed in 2009

The pink circle sirens were installed and fully operational as of April 2009. The blue circle sirens were installed and have been fully operational since 2008.