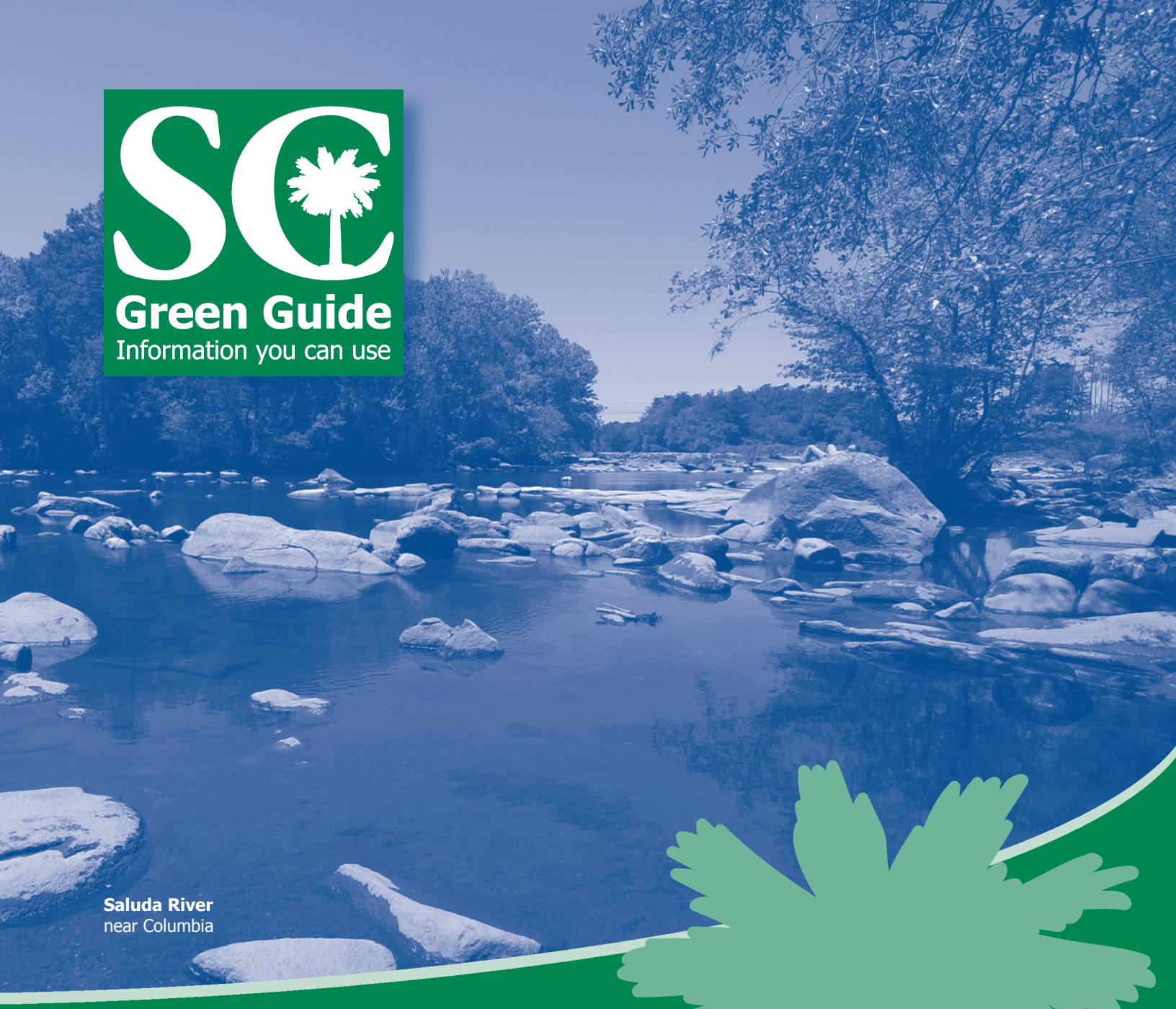
SC Green Guide

Information you can use



Saluda River
near Columbia

Our environment. Our responsibility.

A publication of the
S.C. Department of Health and Environmental Control

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Welcome to the 'SC Green Guide'

On behalf of the S.C. Department of Health and Environmental (DHEC), welcome to the "SC Green Guide."

The purpose of this publication is simple – to provide information you can use to better understand a variety of environmental topics and agency programs. This information is part of a call to action for each of us to do what we can to protect and preserve South Carolina's environment. It is our environment. It is our responsibility.

The topics that are addressed explain not only why they are important, but also what each of us can do to help. You will be reminded of or learn ways to keep our air clean, protect your home from radon, conserve water, recycle, stay safe while fishing or swimming, and even prepare for a hurricane. With each topic, telephone numbers and Web links are provided for additional information.

You will discover programs such as "Take a Break from the Exhaust" that encourages each of us to car pool and the "S.C. Clean Marina Program" that promotes efforts to protect water quality. In addition, programs designed to help S.C. businesses are listed in the back of the guide.

Each of us recently has read, seen or heard about compact fluorescent light bulbs (CFLs) that save energy and money, but many of us may not know that CFLs contain mercury. When the bulbs burn out, they should be managed responsibly. Many of us have questions on the proper way to clean up a broken CFL. See page 21 for details.

Another "hot" topic is open burning – that is burning outdoors. Burning household garbage poses risks to our health and the environment. Burning household garbage also is against the law in South Carolina. See page 11 for more information.

DHEC, in keeping with its vision of "Healthy People Living in Healthy Communities," values local solutions to local problems. To help meet our vision, DHEC has regional offices across the state. You can learn more about the regional environmental offices, what they do, where they are and how to contact them by reading the article on pages 4-5.

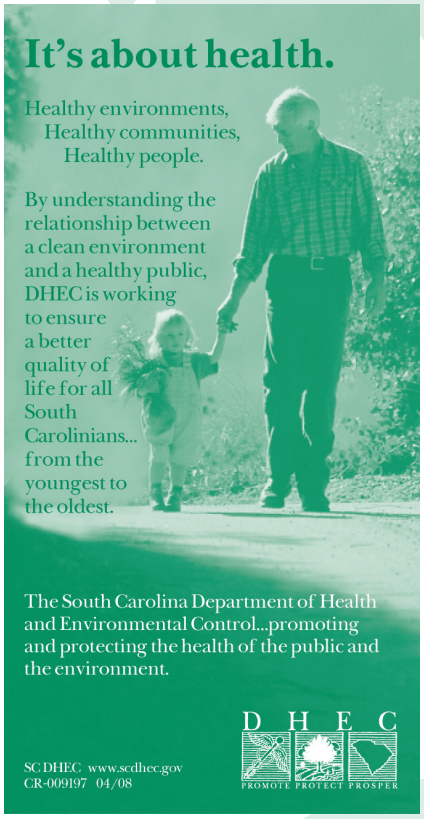
Another issue addressed is public participation. Just what is that? It's involving the public – you – in our work. It means working together and sharing information. DHEC is committed to doing this and you can learn more about that commitment by reading the article on the opposite page.

It is our goal that you find this publication useful, that you find ways to conserve resources, save energy and protect the state's environment.

South Carolina and future generations are counting on each of us. Together, we can do it.

Thank you.

Robert W. King, Jr., P.E.
Deputy Commissioner,
Environmental Quality Control,
S.C. Department of Health
and Environmental Control



Our environment. Our responsibility.

Public Participation: It's everyone working together

Public participation may be called "community involvement" or "community relations" by some. Others may define it as "public relations" or "customer service."

DHEC's Office of Environmental Quality Control (EQC), which oversees environmental issues for South Carolina, defines public participation as "a full range of actions and processes ... to involve the public in our work."

Why have public participation? DHEC knows that public participation improves decisions, facilitates understanding and involves people in decisions that affect them.

Public participation is comprised of key components including:

- communication;
- facilitation;
- public relations;
- conflict resolution;
- mediation;
- organizational development; and
- customer service.

Having the ability to do these, and do these well, creates meaningful public participation.

DHEC has confirmed a number of things as a result of its public participation efforts. Overwhelmingly, concerned residents would like information earlier in the process and in plain language. Conducting public participation earlier in the process gives DHEC an opportunity to help inform people on how to voice their opinions. Bringing together various people allows DHEC to focus on issues and find common ground. Most importantly, the public participation initiative has enhanced communication.

DHEC has staff (liaisons) to answer questions about public participation on environmental issues in your community.

For contact information, see the box below. Each of DHEC's EQC program areas (the bureaus of Air Quality, Water as well as Land and Waste Management) also have staff to assist with public participation.

"Public participation improves decisions, facilitates understanding and involves people in decisions that affect them."

Public Participation Contacts

If you have questions or concerns about public participation on an environmental issue in your community, please call a DHEC liaison at the telephone numbers listed below.

EQC Community Liaisons ..... **(803) 896-8967** or **(803) 896-9730**

Upstate Regional Community Liaison .....**(864) 241-1090**

Coastal Regional Community Liaison .....**(843) 953-0150**

Bureau of Air Quality Liaison .....**(803) 898-4585**

Bureau of Water Liaison.....**(803) 898-8192**

Bureau of Land and Waste Management Liaison .....**(803) 896-4281**

The S.C. Department of Health and Environmental Control's mission is to promote and protect the health of the public and the environment.

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"DHEC has regional offices throughout the state to better serve local communities."

Regional offices help find local solutions to local problems

DHEC, in keeping with its vision of "Healthy People Living in Healthy Communities," values local solutions to local problems.

To meet our vision, DHEC has 12 offices located in eight regions across the state. In each office, DHEC provides services to help protect the quality of the air, land and water in South Carolina.

DHEC's priority is to serve the public. Given that, one of the leading responsibilities of the regional staff is to respond to customer concerns and complaints within 48 hours. The types of concerns and complaints include:

- **air quality** – excessive emissions, open burning and odor;
- **solid and hazardous waste management** – illegal dumping and improper disposal; and
- **water quality** – overflowing manholes, sewage spills, sewage backups, septic tank waste haulers, stormwater runoff, agricultural issues, dams, water quality and safety concerns as well as sanitary conditions at public swimming facilities.

Residents with a complaint or concern about an environmental activity should contact their local regional office. See the following page for a list of regional offices by county.

Here is how the process works. A customer calls a regional office with a concern about an environmental activity. The customer, who can remain anonymous, is given a complaint log number. If the customer wants an update on the progress of their complaint, he/she can use the complaint log number as a reference for follow-up calls. A staff member, specializing in the type of environmental issue, is given the complaint to investigate. Once the complaint is investigated, the staff member contacts the customer to inform them of the conclusion. The investigation will determine what action, if any, will be taken.

The Air Quality Program

DHEC operates air quality monitoring stations around the state. Results from each of these air monitoring stations are used to provide a comprehensive picture of the air quality in South Carolina. Another primary responsibility of DHEC's regional staff includes facility compliance. Facilities are inspected yearly for compliance with regulatory requirements, operation and maintenance plans and visible emissions requirements.

The Solid and Hazardous Waste Management Program

Regulating solid and hazardous waste in South Carolina is a big challenge. DHEC deals with various regulatory issues in the areas of hazardous materials/waste, non-hazardous materials/waste and infectious waste along with programs involving disaster preparedness, emergency response, underground storage tanks as well as mining and reclamation.

Inspections of industries and hazardous waste facilities for compliance with applicable regulations are conducted by DHEC regional staff. These inspections are designed to ensure that hazardous waste is properly transported, stored and disposed of in a manner that is safe and protective of public health and the environment. Facilities that handle mixed waste (hazardous and radioactive waste) are regulated and routinely inspected.

Solid waste management involves many issues including recycling, waste reduction, littering, open dumping, composting and solid waste planning. To help ensure proper solid waste management, landfills and solid waste collection and transfer facilities are inspected for compliance with regulations. DHEC also provides technical help to landfill operators.

What is the role of EQC Laboratories?

DHEC's Environmental Quality Control (EQC) Laboratories provide basic services including environmental monitoring, sample analysis, data management and certification of environmental laboratories. The main laboratory is located in Columbia, but there are additional labs in six of the eight DHEC Regions

Call **(803) 896-0900** or visit **www.scdhec.gov/environment/envserv/lab.htm** for more information.

In addition, DHEC administers the provisions and requirements of the S.C. Mining Act. This includes issuing permits, reviewing and approving reclamation plans, collecting reclamation performance bonds, conducting environmental appraisals, providing technical assistance to mine operators and the public, implementing research and demonstration projects and inspecting all mining operations and reclamation.

The Water Quality Program

Water is one of our most vital natural resources. Protecting that resource and the public's health are primary functions of DHEC's Water Quality Program. DHEC inspects public drinking water and wastewater systems, public swimming facilities, and certain dams for compliance with applicable requirements.

DHEC ensures that all public drinking water supplies meet state and federal requirements for water quality, quantity and pressure. This involves conducting routine inspections of public drinking water systems, conducting routine bacteriological, radiological and chemical monitoring of public drinking water system supplies, investigating drinking water contamination incidents and complaints, and responding to emergencies involving public water systems. DHEC provides technical assistance to public water systems including system operation and maintenance training as well as technical assistance to private well owners.

To ensure water quality, safety and sanitary conditions at public swimming facilities, routine inspections are conducted. To help protect groundwater, DHEC provides technical assistance to geologists and well drillers in the areas of resource protection, well site selection, impact assessment and remediation and well head protection.

Wastewater treatment plants that discharge to the environment are monitored and inspected for compliance. To help protect waters of the state, DHEC samples wastewater treatment facilities, streams and lakes, performs operation and maintenance inspections of agricultural facilities and inspects permitted and non-permitted land disturbance sites.

Through routine compliance inspections, monitoring activities and complaint response, DHEC helps ensure that the quality of the environment is maintained at the highest possible level.

"DHEC provides services to protect the quality of the air, land and water in South Carolina."

DHEC's Regional Environmental Offices

REGION 1

(Serving Abbeville, Anderson, Edgefield, Greenwood, Laurens, McCormick, Oconee and Saluda)

Anderson ..... (864) 260-5569

Greenwood ..... (864) 233-0333

REGION 2

(Serving Cherokee, Greenville, Pickens, Spartanburg and Union)

Greenville ..... (864) 241-1090

Spartanburg..... (864) 596-3800

REGION 3

(Serving Chester, Fairfield, Lancaster, Lexington, Newberry, Richland and York)

Columbia ..... (803) 896-0620

Lancaster..... (803) 285-7461

REGION 4

(Serving Chesterfield, Clarendon, Darlington, Dillon, Florence, Kershaw, Lee, Marion, Marlboro and Sumter)

Florence ..... (843) 661-4825

Sumter ..... (803) 778-6548

REGION 5

(Serving Aiken, Allendale, Bamberg, Barnwell, Calhoun and Orangeburg)

Aiken..... (803) 641-7670

REGION 6

(Serving Georgetown, Horry and Williamsburg)

Myrtle Beach..... (843) 238-4378

REGION 7

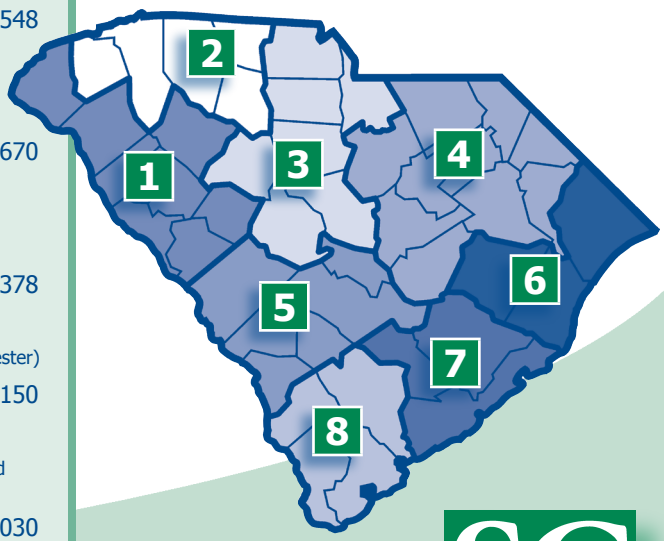
(Serving Berkeley, Charleston and Dorchester)

Charleston ..... (843) 953-0150

REGION 8

(Serving Beaufort, Colleton, Hampton and Jasper)

Burton..... (843) 846-1030



Our environment. Our responsibility.

Spill, release, fish kill? Call DHEC's Emergency Response Team at 1-888-481-0125.

Spill, release, fish kill?

Call DHEC's Emergency Response Team

It's a bright, sunny Saturday morning at your favorite fishing or picnic site. You are with family or good friends all looking forward to a long day of fishing, frolicking in the water or just catching a few rays along the shoreline.

But that's when you spot them. Dozens, maybe even hundreds, of dead fish are floating on the surface of the very water you had planned to spend the day enjoying.

While the sight may have just ruined your day, it is important to know that there are many causes of fish kills including natural causes. But fish kills may be a sign of hazardous or unsafe materials present in the water. Who can you call to check on this situation? It's not an emergency for the police or fire department.

Anytime someone spots – or suspects – a spill, release or fish kill, he/she should contact DHEC's Emergency Response Team (ERT) by calling **1-888-481-0125** (which is staffed 24 hours a day and seven days a week).

ERT responds to notifications from the public that involve the following types of incidents:

- dumping, spills and releases of hazardous substances including, but not limited to, oil and petroleum products, chemicals, hazardous waste, waste oil, pesticides and other pollutants;
- fish kills; and
- illegal open burning of items such as tires, plastic, copper wire and asbestos covered materials. Open burning of land clearing and/or yard trimmings DOES NOT constitute an emergency and should be reported to the local DHEC Regional Office. (See page 5 for a list of regional offices.)

When calling, please try to have the following information:

- **name and return phone number**;
- **date and time of the spill, release or fish kill** (or the time it was spotted);
- **location and directions to where the spill, release or fish kill took place** (Street numbers are best, but mile markers and physical descriptions can help.);
- **description of the substance spilled or released**, if you know;
- **source of the spill or release**, if you can determine;
- **estimate of the amount released or number of dead fish**; and
- **description of the area affected** (soil, water, air, storm drain, etc.).

When calling, give details or answer questions that might be helpful in figuring out what happened.

- **Is the area controlled or restricted either by emergency workers or physical obstacles like fences?**
- **Is traffic being rerouted?**
- **Are there evacuations taking place?**
- **Has the spill been contained, stopped or is it still flowing?**
- **Has the spill escaped into surface water, drainage ditches, sewers, storm drains, etc.?**

For other concerns, see the chart "Environmental Emergency Contact Information" on the following page for specific situations, descriptions and who to call.

You can help ...

If you discover a spill, release or fish kill, please help by calling DHEC's ERT Hot Line at **1-888-481-0125**.

Your notification to DHEC greatly reduces the response times for DHEC's Emergency Response staff.

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Who do you call?

DHEC's mission is to promote and protect the health of the public and the environment. To do this, DHEC's environmental programs work to protect South Carolina's air, water, land and coastal resources.

By immediately reporting spills, releases and fish kills, you help to protect people and the environment. For more information on these and other DHEC resources, visit **www.scdhec.gov**.

ISSUE OR CONCERN	CONTACT	CONTACT INFORMATION
Dead Birds	DHEC Regional Public Health Office – See the telephone list on the right.	Visit **www.scdhec.gov/health/envhlth/general_sanitation/bird_testing.htm**.
Fish Kills, Chemical Releases or Spills	Call DHEC's ERT Hot Line at **1-888-481-0125**.	This hot line is staffed 24 hours a day, seven days a week.
Restaurant and Food-related Problems	DHEC Complaint Form (Web-based) or Regional Public Health Office – See the telephone list on the right.	DHEC's Restaurant/Food Complaint Form can be found at **www.scdhec.gov/health/envhlth/food_protection/complaint.asp**.
Septic Tank Concerns	DHEC Regional Public Health Office – See the telephone list on the right.	Visit **www.scdhec.gov/health/envhlth/onsite_wastewater/septic_tank.htm**.
Sewer Overflows	Responsible Utility Call DHEC's ERT Hot Line at **1-888-481-0125** if the utility does not respond.	Check your utility bill to find the telephone number of your provider. If your utility provider is a government, you can find listings in the blue pages of your telephone book.

DHEC's Regional Public Health Offices

REGION 1

(Serving Abbeville, Anderson, Edgefield, Greenwood, Laurens, McCormick, Oconee and Saluda)

Anderson ..... (864) 260-5541

Greenwood ..... (864) 942-3600

REGION 2

(Serving Cherokee, Greenville, Pickens, Spartanburg and Union)

Greenville ..... (864) 282-4138

Spartanburg ..... (864) 596-3333

REGION 3

(Serving Chester, Fairfield, Lancaster, Lexington, Newberry, Richland and York)

Columbia ..... (803) 576-2900

Lancaster ..... (803) 286-9948

REGION 4

(Serving Chesterfield, Clarendon, Darlington, Dillon, Florence, Kershaw, Lee, Marion, Marlboro and Sumter)

Florence ..... (843) 661-4830

Sumter ..... (803) 773-5511

REGION 5

(Serving Aiken, Allendale, Bamberg, Barnwell, Calhoun and Orangeburg)

Orangeburg ..... (803) 533-7116

REGION 6

(Serving Georgetown, Horry and Williamsburg)

Conway ..... (843) 915-8804

REGION 7

(Serving Berkeley, Charleston and Dorchester)

North Charleston .. (843) 202-7020

REGION 8

(Serving Beaufort, Colleton, Hampton and Jasper)

Port Royal ..... (843) 525-7603

Our environment. Our responsibility.

Air is everywhere!

So are the problems and solutions

Protecting our air is everyone's responsibility. To begin with, the average adult breathes about 3,400 gallons of air a day. Children are at greater risk for pollution-related breathing problems because they are more active outdoors and their lungs are still developing. The elderly are also more sensitive to air pollution because they often have heart or lung disease.

In general, South Carolina's air quality is very good. The U.S. Environmental Protection Agency (EPA) sets national standards that must be met and these standards are revised regularly and have become more stringent through the years. Two pollutants, ground-level ozone and fine particulate matter are of concern. Ground-level ozone is formed during warm weather when volatile organic compounds and nitrogen oxides combine in sunlight. Particulate matter 2.5 is a pollutant made of very fine particles.

Much of the pollution in our air comes from power plants and industrial facilities. But what many people don't realize is that our cars, trucks and gasoline-powered lawn equipment are major contributors to air pollution. Because of this, as individuals we can make a difference in the quality of our air. The choices you make every day can increase or decrease air pollution and can protect or threaten public health. Take a moment to consider your everyday activities and choices that may actually contribute to air pollution.

"Have you taken a moment to consider that your everyday choices may contribute to air pollution?"

Think about the last time you visited your bank or drove to a fast food restaurant. Did you decide to park your vehicle or pass through the drive-up window? If you went through the drive-up window, was your car idling while you waited? If so, air pollution – volatile organic compounds, carbon monoxide and nitrogen oxides – is emitted from the vehicle's tailpipe. Remember, when idling, vehicles release air pollution and get zero miles to the gallon.

To help improve air quality, consider parking the next time you go to the bank or that fast food restaurant rather than using the drive-thru window. It may even be much quicker to complete your transaction and will reduce air pollution from idling. If you expect to idle for more than 30 seconds, turn off your car's engine to save gasoline.

Another way to help is by filling up your car's gasoline tank after 6 p.m. By doing so, when the temperature is usually lower than at mid-day, the chemical reaction which forms ground-level ozone is less likely to take place. The same tip applies to mowing your yard. If you have a gasoline-powered mower, consider mowing the grass after 6 p.m. Consider this: electric lawn and garden tools produce essentially no pollution from exhaust emissions or through fuel evaporation.

Lawn mowers and other gasoline-powered equipment – like leaf blowers or edgers – are another source of air pollution. The small engines of these lawn tools release volatile organic compounds, carbon monoxide and nitrogen oxides into

Take a Break from the Exhaust!

This alternative commute program encourages commuters to reduce daily vehicle miles traveled. It helps limit emissions from vehicles, thereby reducing South Carolina's ground-level ozone levels.

For more information, call **(803) 898-3829** or visit **www.scdhec.gov/takeabreak**.

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the atmosphere. These types of lawn tools are major contributors to air pollution.

Do you or a neighbor burn your leaves, twigs and branches during the spring or fall? (It's illegal in some places.) Have you noticed how much smoke these fires produce? This smoke comes from incomplete combustion of the materials burned (leaves, twigs, etc). The smoke contains particulate matter and other air pollutants and can also contribute to ground-level ozone. Wind direction can't be controlled, so smoke may be carried from your yard throughout the neighborhood.

Still thinking about burning those leaves, twigs and branches? Did you know that yard trimmings (and even some food) can be easily composted in your backyard? Chipping brush and wood to make mulch or decorative landscape material is another way to "reuse" yard waste and help to fertilize your yard or garden. Not burning this material may help someone in your household or neighborhood that has a respiratory condition have a better day.

Highways and roads are becoming more congested, which means longer commute times, higher travel costs and more air pollution. Have you noticed the number of single-occupant vehicles on your daily commute to and from work? Today's vehicles pollute less than even 10 years ago, but more vehicles on the road and longer commutes have offset this improvement.

Alternative forms of transportation are regaining popularity because they help reduce air pollution and several may be available to you for your work commute. One great option for getting to and from work is called SmartRide. SmartRide is an alternative commute program supported by the S.C. Department of Transportation, the Central Midlands Regional Transportation Authority (RTA), the Santee Wateree RTA, local communities, businesses and conscientious commuters who want a viable alternative to the traditional drive-alone commute. Visit their Web site to see if this alternative is available in your area – **www.scdot.org/getting/smartride/smartride.shtml**. Many other areas provide similar alternate commute and transportation options including Anderson, Charleston (CARTA), Clemson (CATs), Low Country, Pee Dee, Spartanburg, and Greenville (Greenlink).

The choices we each make can help "spare the air" and improve South Carolina's air quality.

To learn more about air quality, visit **www.scdhec.gov/environment/baq/** or call **(803) 898-4123** for more information

B² – Breathe Better:

An Anti-idling Clean Air Campaign

B² is designed to reduce vehicle emissions around school campuses.

Its goal is simple – to help identify and provide solutions to reduce air pollution around school campuses through enlisting the efforts of students, faculty, staff, the community and local agencies. The program is a great way for your school to protect children's health and the environment!

Please call DHEC's Bureau of Air Quality at **(803) 898-2233** or visit **www.scdhec.gov/environment/baq/b2.aspx** for information about how your school can participate.

an anti-idling clean air campaign

b2

breathe better

Tips to Keep Air Clean

(and Maybe Save Money)

- **Recycle and compost** all you can. Avoid burning leaves and yard trimmings.
- **Choose a cleaner commute.** Use public transportation, car pool, bike or walk when possible.
- **Combine errands** to reduce "cold starts" of your car. Avoid extended idling.
- **Be sure your car's tires are properly inflated.**
- **Keep car, boat and other engines properly tuned** and avoid engines that smoke.
- **Be careful not to spill fuel** and always tighten your gasoline cap securely when refueling your vehicle.
- **Use environmentally safe paints and cleaning products** whenever possible.
- **Follow manufacturers' recommendations** for use and properly seal cleaners, paints and other chemicals to prevent evaporation.
- **Conserve electricity.** Set your thermostat a little higher in the summer and a little lower in the winter. Participate in local energy conservation programs.
- **Reduce or eliminate the use of fireplaces and wood stoves** if possible.
- **Use electric-powered lawn mowers and garden equipment** instead of gasoline-powered ones.

For more information, call DHEC's Bureau of Air Quality at **(803) 898-4123** or visit **www.epa.gov/air/urbanair**.

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A brief introduction to climate change

Climate change. Global warming. The greenhouse effect. Greenhouse gases.

Each of us has heard the terms. What exactly do they mean? What impact do these issues have on our health and the environment? Let's start with some common definitions.

Weather is what happens at a particular moment. Climate is the long-term average of an area's weather. For example, the weather on a winter day in Buffalo, NY could be sunny and mild, but the average winter weather – the climate – in Buffalo is cold and snowy.

Climate change refers to any significant change in measures of climate (e.g., temperature, precipitation and wind) lasting for an extended period (decades or longer). Global warming refers to an average increase in the Earth's temperature, which, in turn, causes changes in climate. The term climate change often is used interchangeably with the term global warming, but according to the National Academy of Sciences the term climate change is preferred because it helps convey that there are other changes in addition to rising temperatures.

The greenhouse effect is a natural phenomenon that helps regulate the Earth's temperature. Greenhouse gases (e.g., carbon dioxide, methane and nitrous oxide) trap heat from the sun that otherwise would escape into space. The greenhouse effect is important. Without this natural occurrence, temperatures would be about 60 degrees Fahrenheit lower than they are now and life, as we know it, would not be possible.

There is scientific consensus on the greenhouse effect. There also is scientific consensus that human activities, primarily the burning of fossil fuels and cutting down trees as well as population growth, have enhanced the natural greenhouse effect causing the Earth's average temperature to rise.

It is important to note that climate change has occurred naturally throughout the Earth's history. The current warming trend, however, is of particular significance because it is most likely caused by human activities that have added a significant amount of greenhouse gases to the atmosphere.

As discussed earlier, at one time all climate changes occurred naturally. But since the Industrial Revolution, which was marked by the general introduction of power-driven machinery, human activity has added a significant amount of greenhouse gases to the atmosphere. Since the Industrial Revolution, which began in the late 18th century, the need for energy to run machines has steadily increased.

So, what's the issue? A warmer Earth may lead to changes in rainfall patterns, a rise in sea level and a wide range of other impacts. Overall, climate change affects people, plants and animals. It may seem hard to believe that what people do can change the Earth's climate. But many scientists think that human activities that send greenhouse gases into the air are making the planet warmer.

Each of us contributes to greenhouse gas emissions whether we know it or not by driving a car, turning on a light, watching television, using a microwave oven and turning on the air conditioning. To perform many of these everyday functions, we need electricity. Electricity comes from power plants. Most power plants use coal and oil to make electricity. Burning coal and oil creates greenhouse gases.

Most scientists agree that climate change is a significant problem. But there are little things each of us can do to make a difference and reduce the amount of greenhouse gases that we put into the atmosphere. See the box below for more information.

For more information on climate change, visit **www.epa.gov/climatechange**.

Things You Can Do to Reduce Your Greenhouse Gas Emissions

Here are some simple steps that you can take at any time to reduce your personal and household greenhouse gas emissions. And just as important, many of these same things will also reduce the emissions that contribute to the formation of ground-level ozone, particulate matter 2.5 and other air pollutants.

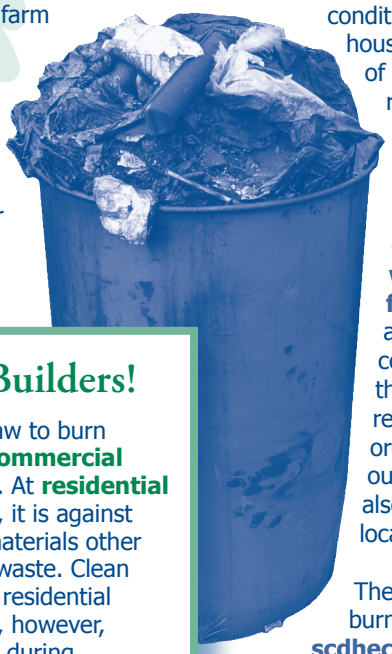
- Use compact fluorescent light bulbs.
- Avoid using the clothes dryer by hanging clothes outside to dry.
- Limit hot showers to 5 minutes or less.
- Turn off computers, monitors and printers when not in use.
- Choose washable items over disposable ones.
- Compost yard trimmings and food waste.
- Drive fuel-efficient vehicles.
- Drive at or slightly below the speed limit and accelerate and stop smoothly.
- Bicycle, walk, carpool and use public transit when possible.
- Track your vehicle's average gas mileage and maintain your car, including keeping the tires properly inflated.
- Don't start your vehicle until you're ready to drive and turn off the engine while waiting for even short periods.

Open burning poses risks to health, environment

Open burning is simply defined as burning anything outside. Open burning presents a risk to people's health and the environment. Open burning, depending on the circumstances, may be illegal and is always discouraged.

Given that, South Carolina revised its open burning rules to protect air quality and the public's health. Homeowners may burn yard trimmings if allowed by local ordinances. Other allowed open burning includes fireplaces, campfires, outdoor barbecues and bonfires. But burn barrels, which have been used as a means of disposing of household garbage, are no longer allowed.

It is against the law to burn household garbage and trash in South Carolina. Items that cannot be burned include, but are not limited to: paper and cardboard; roofing materials such as shingles and tar; motor and waste heating oil; tires and other rubber products; plastic; paint; household cleaners; farm chemicals; electrical wire; as well as insulation and duct work. If you get caught, substantial fines can be assessed even for first-time violations.



Open burning also may be hazardous to your health and the health of your neighbors. Burning garbage in barrels releases toxic pollutants and contaminated particles directly into the air without being filtered or treated. Open burning is particularly dangerous in that it releases pollutants at ground level where they are more readily inhaled. The closer you are to burning trash, the greater the risk of inhaling dangerous pollutants.

Open burning also produces ash that can contain toxic metals such as mercury, lead, chromium and arsenic. Some people are unaware of the potential danger and scatter the ash in their gardens or bury it. Garden vegetables can absorb and accumulate these metals. Children playing in the yard can ingest soil containing these metals.

Additionally, open burning may endanger property. It is a frequent cause of brush, residential and forest fires particularly during drought conditions. Instead of burning household garbage, dispose of it properly. Better yet, recycle and compost.

The S.C. Forestry Commission regulates certain types of outdoor burning. Visit **www.state.sc.us/forest/fyard.htm** for a toll-free number (by county) to call and notify the commission regarding residential burning. Local ordinances may apply to outdoor burning. Residents also should check with their local government.

The state regulation on open burning is available at **www.scdhec.gov/environment/baq/docs/regs/pdf/R61-62_2.PDF**. For more information on open burning, call DHEC's Bureau of Air Quality at **(803) 898-4123**.

Attention Builders!

It is against the law to burn any waste from **commercial** construction sites. At **residential** construction sites, it is against the law to burn materials other than clean wood waste. Clean wood waste from residential construction sites, however, cannot be burned during ground-level ozone season (April 1 through October 30) in South Carolina.

Drive wisely:
Be a ROADS Scholar

Even a perfectly maintained car will pollute more than necessary if it is driven carelessly. Your car's emissions will be lower if you apply common sense to your driving and follow basic rules of the road. Here are some helpful habits for you to reduce pollution.

IDLING: You will save gasoline by turning the engine off and restarting it again if you expect to idle for more than 30 seconds.

STOP-and-GO DRIVING: When possible, plan trips outside rush hour and peak traffic periods. Try to "smooth" your driving by accelerating and decelerating gradually, anticipating stops and starts for traffic lights, changing traffic speeds and so on.

AIR CONDITIONING: Use of a vehicle air conditioner increases load on the engine. This can increase emissions and decrease fuel economy. Try opening the window or the fresh air vent to cool the inside of your vehicle. Also, park in the shade to keep your car cool.

HIGH ENGINE LOADS: Your car burns more gasoline and releases more pollution when the engine is operating under high load (e.g., working especially hard). Extra load is created by running the air conditioner, quick accelerations, high-speed driving, climbing grades, revving the engine and carrying extra weight.

REFUELING: Spilled gasoline pollutes the air when it evaporates. Watch what you do at the gasoline station to prevent spills and overfills. It's best to avoid "topping off," especially in hot weather. Apply the same precautions when refueling outdoor power equipment such as lawn mowers and outboard motors.

Our environment. Our responsibility.

Protect your home from radon

What is radon?

Radon is a naturally occurring radioactive gas. It forms when uranium breaks down in soil, rock and water.

Radon is a naturally occurring, radioactive gas that you can't see, smell or taste. The presence of radon in your home can potentially pose a danger to your family's health. In fact, radon is the second leading cause of lung cancer among non-smokers according to the U.S. Environmental Protection Agency (EPA).

Radon comes from the natural decay of uranium that is found in nearly all soils. It typically moves up through the ground and into your home through cracks in floors and walls, construction joints, cavities inside walls, gaps in suspended floors and around service pipes. Sometimes radon enters the home through well water. Radon may get trapped inside your home and build up to dangerous levels.

Radon can be found throughout the country and can get into any type of building (homes, offices and schools). Any home may have a radon problem including new and old homes, well-sealed and drafty homes as well as homes with or without basements. People are more likely to get their greatest exposure to radon at home since that is where they spend most of their time.

Radon is a risk because it decays into radioactive particles that can get trapped in your lungs when you breathe, potentially causing lung cancer. Your chances of getting lung cancer from radon depend mostly on how much radon is in your home, the amount of time you spend in your home and if you smoke or have ever smoked.

The amount of radon in the air is measured in "pico Curies per liter of air" or "pCi/L." Radon reduction systems should be installed in a home if the radon level is 4 pCi/L or higher. Radon reduction systems are installed by qualified professionals and are not very expensive. Some systems can reduce radon levels in homes by 99 percent.

The only way to know if you have a radon problem is to test your home. Testing for radon is easy, inexpensive and only takes a few minutes. Radon test kits can be purchased at home improvement stores or a certified radon tester can be hired to check your home. The test kit should be placed in the lowest lived-in level of the home (e.g., the basement if it is frequently used, otherwise, the first floor).

More home buyers are asking about radon levels before they buy. The best thing to do if you are selling your home is test for radon. If a problem exists, fix it so it won't complicate your sale. If you are building a home, radon-resistant features can be added. Visit **www.epa.gov/radon/pdfs/buildradonout.pdf** to see the EPA publication, "Building Radon Out: A Step-by-step Guide on How to Build Radon-resistant Homes." If you are renovating your home, it is important to test the area for radon before you begin.

Radon test kits also are available for **FREE** from DHEC by calling the S.C. Radon Hot Line at **1-800-768-0362** or **(864) 241-1090**. Kits also can be requested by sending an e-mail to **radon@dhec.sc.gov**.

MOW DOWN AIR POLLUTION!

TRADE IT IN FOR CLEANER AIR.

Trade in that old, polluting gasoline-powered lawn equipment for a **new cordless ELECTRIC alternative**. Electric lawn mowers, weed trimmers and leaf blowers are lightweight, quieter, less expensive to maintain and use – **and better for AIR QUALITY!**

For information on lawn mower exchanges, visit **www.scdhec.gov/environment/baq/lawnmowerxchng.aspx** or call **(803) 898-4297**.

SC Our environment. Our responsibility.

Safe drinking water: Who's responsible?

Most of us don't think about it. Most of us just expect safe drinking water when we turn on the faucet.

In South Carolina, a partnership that includes DHEC, the U.S. Environmental Protection Agency (EPA) and drinking water professionals throughout the state, works to provide safe, high-quality drinking water.

Governments or private water suppliers are responsible for the quality of water that flows from your faucet. Water systems test and treat their water, maintain the distribution systems that deliver water to consumers, and report their water quality results to DHEC. If you have a private well, you are responsible for the quality of your water.

DHEC regulates all public water systems and is responsible for making sure these systems comply with all state and federal regulations. Systems that fail to provide water that meets state and federal standards must return to compliance.

Every year, water utilities publish drinking water quality reports (also known as consumer confidence reports). These reports provide information on the water's quality, sources, the contaminants found in the water and how consumers can help protect drinking water. For information about local sources of water quality, visit **www.epa.gov/safewater/dwinfo/index.html**.

For information on drinking water contaminants and their health effects, visit **www.epa.gov/safewater/dwh/index.html**.

For general information on drinking water and water quality including questions about its taste or smell and disinfecting water in case of an emergency, visit **www.scdhec.gov/environment/water/dwoutreachfaq.htm** or call **(803) 898-4300**.

Be part of the solution.

Reducing your contribution to runoff pollution is the first step to take in protecting our water resources.

If you want clean water, you need to help

Nationally, runoff pollution is the leading cause of water quality problems.

Just what is it? Runoff pollution, also called nonpoint source pollution, comes from our everyday activities. It happens when rainwater runs over and through the ground. As the runoff moves, it picks up and carries pollutants into our creeks, lakes, rivers and streams. These pollutants can be fertilizers from lawns and gardens, oil and grease from our cars, soil from construction sites, bacteria from livestock or dog and cat waste, and human waste from failing septic systems. Runoff pollution can negatively impact our drinking water sources, natural swimming areas, and the creatures that live in our lakes, streams and rivers. Each of us can help reduce runoff pollution. The following tips are part of the "solution to runoff pollution."

- Keep litter, pet waste, leaves and debris out of street gutters and storm drains. These drains go directly to lakes, streams, rivers and wetlands.
- Recycle used motor oil and manage antifreeze, paint and other household chemicals properly. Do not pour them in storm drains or ditches.
- Have your septic system checked to be sure it's working properly.
- Be aware that many chemicals commonly used around the home are toxic. Use non-toxic substitutes wherever possible.
- Use lawn and garden chemicals sparingly and according to directions.
- Reduce your fertilizer use and keep fertilizer off driveways and walkways.

To learn more, visit **www.epa.gov/owow/nps/whatis.html**. For more information about how to reduce runoff pollution, call **(803) 898-4187** or go to **www.scdhec.gov/environment/water/npspage.htm**.

SC Our environment. Our responsibility.

It's up to all of us to conserve water

About 71 percent of the Earth's surface is covered with water, but only 3 percent of the planet's water is fresh water with about 1 percent available to be used as drinking water. Daily use of water is on the rise, and many parts of the world are now reaching the limits of their supply. There is no "new" water. We are using the same water the dinosaurs used millions of years ago.

Did you know?

Of all the water used at home, **50-70 percent** is used for watering lawns and gardens.

In the United States, the average person uses about 90 gallons of water each day in the home. Each American household uses about 107,000 gallons of water each year. The U.S. Environmental Protection Agency (EPA) finds that 50-70 percent of water used at home is for watering lawns and gardens. Nearly 14 percent of the water a typical homeowner pays for is never even used – it leaks down the drain, according to the EPA.

Recent droughts in South Carolina and an ever increasing demand for clean, fresh water have made people think seriously about conserving water. There are many things that we all can do on a daily basis to reduce water use.

- **Stop leaks.**
- **Replace old toilets** with models that use 1.6 gallons or less per flush.
- **Replace old clothes washers** with EPA ENERGY STAR-certified models. For more information about ENERGY STAR products, home improvement and more, visit **www.energystar.gov**.
- **Plant a lawn and garden that requires less water.**
- **Provide only the water plants need.**

In addition to these water saving measures, DHEC is joining with EPA's WaterSense program to spread information on products that save water in the home or office. Homeowners and businesses can decrease water bills by as much as 30 percent by making a few smart buying decisions. In fact, if one out of every 10 homes in the United States used water-efficient fixtures, we could save more than 300 billion gallons of water and nearly $2 billion every year. By using water more efficiently, we can protect water supplies for future generations, save money and protect the environment.

Saving water is easy. Many water-saving products are available for use and they don't change the way you live or do business. Look for products with the WaterSense label for your bathroom and lawn. Use a WaterSense irrigation partner for your landscape watering system.

To find easy ways to reduce your water bill and protect water resources, call DHEC's Bureau of Water at **(803) 898-3542** or visit **www.scdhec.gov/water**. Also visit EPA's WaterSense Program at **www.epa.gov/watersense**.

WaterSense, a partnership program sponsored by the U.S. Environmental Protection Agency, makes it easy for Americans to save water and protect the environment.

Products that meet WaterSense criteria for water efficiency and performance carry a special label. When you use products bearing the WaterSense label above, expect exceptional performance, savings on your water bills and assurance that you are saving water for future generations.

To find a WaterSense product and for more information, visit **www.epa.gov/watersense/pp/index.htm**.

SC Our environment. Our responsibility.

DHEC helps ensure beaches are clean, safe

Summer just isn't complete without a trip to one of South Carolina's beautiful beaches. To help us stay safe and healthy at the beach, each year between May and October, DHEC routinely collects ocean water samples at more than 100 beach locations along the South Carolina coast. DHEC, in partnership with beach communities, provides residents and out-of-state visitors with specific and timely information for safe and healthy swimming at the beach.

Ocean water is collected along the shoreline and DHEC scientists check the water samples for bacteria. Whenever bacteria levels are too high, advisory signs are posted to alert swimmers to the potential health hazards. Ocean water samples are then taken every day until the bacteria levels are safe for swimming. In 2007, 98 percent of the beach days were advisory-free.

An advisory means that DHEC advises you to not swim in certain areas. This is especially true for young children and people with compromised immune systems. Advisories do not mean that the beach is closed. Wading, fishing, and shell collecting are still just fine to do.

Bacteria typically enters coastal waters through rain runoff from urban, suburban and rural areas. As the rain flows over the ground, it picks up bacteria from pet, livestock and wildlife waste. Rain runoff can also pick up fertilizers and pesticides from farms, lawns and golf courses. It can pick up motor oil, loose soil and other pollutants. This runoff flows into storm drains and ditches that can carry it out to some of our beaches.

If you're planning a trip to the beach, check ahead for water quality at your destination. You can find out more about beach water quality at **www.earth911.com**. To learn more about DHEC's Beach Monitoring Program go to **www.scdhec.gov/beach** or call **(803) 898-3541**.

Here are some ways to stay healthy while at the beach.

- Be aware of advisories and avoid swimming in those areas. Wading, fishing and shell collecting do not present a risk since most exposures to bacteria and pollution occur by swallowing water. But DO NOT enter the water with open sores or cuts because high levels of bacteria may cause infection.
- Do not swim or allow children to play in or near stormwater pipes. Although the shallow pools of water on the beach caused by swashes and stormwater seem like good places for children to play, they ARE NOT. These shallow pools are caused by runoff and often contain much higher levels of bacteria than the ocean.

Did you know?

In 2007, **98 percent** of the beach days in South Carolina were advisory free.

Become a Champion of the Environment!

Champions of the Environment recognizes and rewards K-12 students and teachers who are making a positive difference for the environment.

Each school year, up to 10 grant award winners are chosen. Awards are made in October and February. The $500 grant can be used to improve or expand an existing project or to start a new project.

Who is eligible? South Carolina's K-12 students, teachers and educators who are working on student environmental projects are eligible. Applicants can be school groups, clubs or individual students in a public, private or home school program. Eligible projects must address an environmental issue in one or more of the following categories: prevention or reduction of pollution in the air, water or land; waste reduction; restoration, preservation or enhancement of natural areas; and water or energy efficiency.

How can you apply? Please visit **www.scdhec.gov/champions** and click on the grant award application or call **(803) 898-4394** for an application. Submit the completed application with any supporting materials (e.g., pictures or other visuals) to the Champions' coordinator. Applications are due September 15 for October grants or January 15 for February grants.

Call **(803) 898-4394** or visit **www.scdhec.gov/champions** to learn more about Champions including past winners and ideas for environmental projects at your school.

SC Our environment. Our responsibility.

Marine debris poses risks to people, coast

Marine debris is any discarded object that enters the coastal or marine environment. This includes everything from candy wrappers and plastic bottles to lost fishing gear and abandoned boats. Marine debris poses a threat to people and marine life. Here are five ways you can help:

1. Reduce the amount of plastic you take to the beach (food wrappers, utensils, etc.);
2. Use reusable bags to carry your belongings, food and litter to and from the beach;
3. Recycle your bottles and cans;
4. Collect any litter you see; and
5. Leave only footprints in the sand. Take all of your toys, garbage and recyclables with you.

Please visit **www.scdhec.gov/environment/ocrm/outreach** for more information about these and other DHEC initiatives.

S.C.'s coastline provides opportunities, challenges

With 187 miles of Atlantic coastline and nearly 3,000 miles of bays, rivers and creeks, South Carolina offers unsurpassed natural beauty and a variety of fish, birds and other animals.

It's also home to more than 1.5 million residents and each year South Carolina welcomes more than 15 million visitors to its beaches and coastal towns. The coast is a very dynamic, fragile place. The annual threat of hurricanes coupled with chronic erosion and the emerging threat of rising sea levels means coastal managers must plan carefully.

In 1988, South Carolina adopted the S.C. Beachfront Management Act, which provides DHEC with tools to manage shoreline development and stabilization. Most significantly, it established a policy of shoreline retreat. It significantly limits the use of hard erosion control structures such as seawalls. Seawalls actually accelerate erosion by causing waves to scour down against the wall rather than being able to roll over a natural beach slope. Often this results in the complete loss of the public recreational beach.

Despite the limit on new oceanfront seawalls, shoreline development has continued to expand at a very rapid pace. The issues originally addressed 20 years ago remain critical.

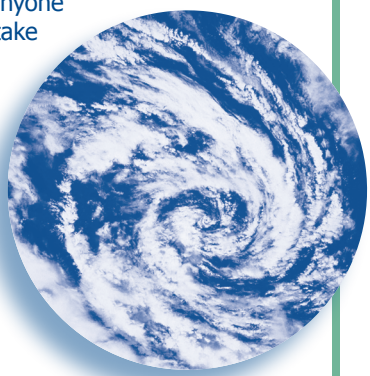
All of South Carolina's coast experiences some unavoidable, chronic erosion. In fact, some beaches may erode up to 15 feet per year. For years, South Carolina has relied on beach renourishment – replacing sand – to counteract erosion, but it is expensive and considered by many to be only a temporary solution.

As beachfront lots become increasingly scarce, estuarine shorelines along rivers and creeks have become equally desirable for development. These shorelines face similar threats from erosion, rising sea levels and storms and create increasing demands for erosion control structures.

In 2007, DHEC started a Shoreline Change Initiative to help guide efforts to sustain the state's coastal communities and natural resources. The initiative will organize existing data collection and research efforts, identify additional research needs and formulate policy options to guide the management of South Carolina's estuarine and beachfront shorelines. Visit **www.scdhec.gov/environment/ocrm/science/shoreline_comm.htm** for more information.

Be prepared for a hurricane

Everyone living along the South Carolina coast needs to understand and be prepared for hurricanes. While there's nothing anyone can do to prevent hurricanes, everyone should take all possible actions to protect themselves and their families from the dangers associated with these storms. Be prepared by staying informed, making an emergency supply kit, creating an evacuation plan, gathering shelter information and making arrangements for your family pets.



For more information about preparing for or recovering from a hurricane, visit **www.scdhec.gov/hurricane**.

South Carolina CLEAN MARINA

The S.C. Clean Marina Program provides an opportunity for marina owners and operators to improve customer service, protect water quality and be recognized for their efforts. By meeting prescribed environmental performance criteria, marinas can qualify to fly the Clean Marina flag with the logo above to attract boaters to their facility.

Visit **www.scdhec.gov/environment/ocrm/outreach/clean_marina.htm** for more information.

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Pay attention to fish advisories

Fish consumption advisories help you fish smart.

DHEC, which has been issuing advisories since 1976, collects and tests fish from lakes, rivers, streams, estuaries and offshore waters all over South Carolina to make sure the fish you catch are safe to eat. Some saltwater fish samples are collected by both DHEC and the S.C. Department of Natural Resources (DNR). Samples are tested for some chemicals to see if any of the fish are contaminated.

How can you reduce the health risks from contaminated fish? You can reduce health risks from eating any type of fish by following these tips:

- Eat the amount of fish recommended by the fish consumption advisories.
- Eat fish from lakes and rivers that do not have advisories.
- Eat smaller fish and smaller amounts of fish.
- Eat different types of fish instead of just one type.
- Clean and cook your fish the right way.
- Enjoy fishing by catching then releasing the fish instead of eating them.

To learn more ways stay safe – especially if you are pregnant, nursing, in child-bearing years or a child under 14, call **1-888-849-7241** or visit **www.scdhec.gov/fish** for a free booklet.

Advisories provide information to help South Carolinians decide which fish to keep and how much fish to eat. South Carolina's advisories are based on one meal of fish. One meal is a half-pound or 8 ounces of fish. This is the weight of the fish BEFORE you cook it. Eight ounces of raw fish is about the size of two decks of playing cards.

Why are some fish not safe? Harmful materials can get into the environment in many ways. In South Carolina, the main contaminants are mercury, polychlorinated biphenyls (PCBs) and radioisotopes. These materials end up in lakes, rivers and streams where they can contaminate plants and animals, like fish, that live in the water.

Contaminants get into fish through the plants and animals that they eat. Some of these chemicals absorb directly into the body of a fish. Older and larger fish have eaten more and been in the water longer, so there may be more contaminants in their bodies. When you eat these fish, the contaminants get into your body, too. The danger from these contaminants comes only from eating the fish. This means people can still enjoy water activities like boating, skiing and swimming.

Your body naturally removes small amounts of contaminants. Health problems may occur when there are too many harmful chemicals in the body. Babies and children are more at risk because their bodies are still developing. Women who are pregnant, may become pregnant or are nursing should be very careful about the fish that they eat. These women should not eat any fish where there is an advisory.

The U.S. Food and Drug Administration (FDA) and the U.S. Environmental Protection Agency (EPA) have issued a national mercury advisory for fish that you buy or catch. This includes fresh, frozen and canned fish that you buy in a store or restaurant. The advisory, issued in March 2004, says that women who are pregnant, may become pregnant or are nursing, and children under 14 should not eat any king mackerel, shark, swordfish or tilefish.

Information on this advisory can be found on the EPA's Web site – **www.epa.gov/waterscience/fish** or by calling the FDA at **1-888-SAFEFOOD**. To request a copy of the S.C. fish consumption advisories or other material, call DHEC at **1-888-849-7241**.

What about shellfish?

DHEC regularly tests the water in South Carolina's shellfish beds for bacteria. This ensures that the oysters, clams and mussels you collect meet health standards and are safe to eat.

DHEC will close a shellfish bed if the health standards are not met or if conditions have changed to make the shellfish unsafe. A closed shellfish bed means that it is not only unsafe to eat what you might find, but it is also illegal to gather shellfish in that area.

Visit DHEC's shellfish Web site at **www.scdhec.gov/environment/water/shellfish.htm** for more information. Additional information also is available by telephone for the following counties: Horry and Georgetown counties – **(843) 238-4378**; Charleston County – **(843) 953-0150**; and Beaufort and Colleton counties – **(843) 846-1030**.

Our environment. Our responsibility.

It's just right to recycle

Recycling is good for the environment and the economy. The recyclables that you place in your curbside bin or take to a drop-off center have value. By turning recyclables into material that can be bought and sold, recycling creates jobs and adds significantly to South Carolina's economy.

Recycling promotes the sustainable use of natural resources. Recycling saves energy and reduces pollution. Recycling also lessens the need to build landfills and incinerators. Recycling works.

It's up to you. Recycling is not mandatory in South Carolina – it's voluntary. Local governments design and run the programs. Whether your area's program is large or small, it needs your participation to be successful.

Where to recycle? Recycle at home, school and work – just about anywhere. South Carolina has more than 100 curbside recycling programs and more than 600 recycling drop-off centers. There are recycling opportunities in each of the state's 46 counties.

If you're on the go, take your recyclables home. Do-it-yourself oil changers can recycle used motor oil at more than 800 collection sites throughout the state. Many of these sites also accept used motor oil bottles and filters. Some sites accept oil/gasoline mixtures as well.

What can be recycled? Most programs accept recyclables such as aluminum cans, plastic bottles (soft drink, detergent, shampoo and other similar bottles, and milk jugs), newspapers and newspaper inserts, cardboard, steel cans (fruit, vegetable, soup and other food and beverage cans) and glass bottles (clear, green or brown). Programs also accept many other items such as magazines, office paper and unwanted mail.

For more information on what and where to recycle in South Carolina, call DHEC's Office of Solid Waste Reduction and Recycling at **1-800-768-7348**.

You also can visit **www.scdhec.gov/environment/lwm/recycle/counties.htm** to view programs by county and learn what is accepted and who to call.

Visit **www.scdhec.gov/environment/lwm/recycle/faq.htm** for answers to many frequently asked questions about recycling.

Did you know?

Last year, South Carolinians recycled more than **8.6 million tons** of material.

Here's the dirt on backyard composting

Composting at home is easy to do and has many benefits. All you need to get started is a little time, a little space, a bin and a basic understanding of how composting works.

Composting is the controlled natural decomposition of organic material such as leaves, yard trimmings and fruit and vegetable scraps. Microorganisms break down this material into compost, a crumbly, dark-colored, earth-smelling, soil-like material. Compost is nutrient-rich and can be used in your garden, flower beds and lawn.

Using compost improves soil by increasing aeration and water-holding capacity as well as helping plants absorb nutrients. Compost reduces or eliminates the need for chemical fertilizers and pesticides by helping suppress plant diseases and pests. By composting, you also are keeping yard trimmings and other organic material out of landfills and saving money by buying fewer bags of commercial compost and fertilizer. You make your own valuable product at home for free.

To learn more about composting or for FREE composting guide, call DHEC's Office of Solid Waste Reduction and Recycling at **1-800-768-7348**. Other composting materials also are available at **www.scdhec.gov/environment/lwm/recycle/compost.htm**.

SC
Our environment.
Our responsibility.

Help stop illegal dumping

Illegal dumping is the improper disposal of waste at any location other than a permitted landfill or facility. It is not only against the law, but illegal dumping poses a risk to people and the environment.

Illegal dumping is a serious issue. Illegal dumps often are accessible to people, particularly children, who can be at risk to chemicals, nails and sharp materials. Illegal dumps also attract rodents and insects. For example, tires that have been illegally dumped provide an excellent place for mosquitoes to breed. Illegal dumps also have caught fire.

People who illegally dump may be prosecuted in South Carolina. DHEC's criminal investigators are assigned to investigate possible illegal dumping. Anyone convicted of illegal dumping is subject to penalties as provided by state law. The cost of cleaning illegal dumps is ultimately placed on the responsible person or the property owner.

Property owners need to know that it is illegal to allow open dumping on their property. Often, property owners charge a fee to allow someone to dump waste on their property. This is against the law. Sometimes a property owner may take land-clearing debris to fill ravines or other low areas on the property without getting permits. Again, this is illegal.

So what are some things you can do to stop illegal dumping?

- If you see illegal dumping or an open dump, call DHEC's Office of Solid Waste Reduction and Recycling (Office) at the telephone number below. Your complaint will be forwarded to the proper DHEC staff person.
- If you are having a house built or remodeled, make sure the waste from your site is being properly disposed of – ask your contractor for the details.
- Recycle, compost your yard trimmings and properly dispose of the remainder of your solid waste.

For more information on this and other solid waste issues, please visit **www.scdhec.gov/recycle** or call the Office at **1-800-768-7348**.

Always recycle used motor oil

In South Carolina, used motor oil must be recycled. It's the law. If you have your oil changed at a dealership, garage or quick lube, your used motor oil is recycled by that business. If you change your own oil, you must recycle it.

And that's easy and convenient to do because South Carolina has one of the best and most comprehensive programs in the nation targeting do-it-yourself oil changers. Every county has collection sites for used motor oil recycling. Most also accept used oil filters and motor oil bottles.

Recycling used motor oil also is the right thing to do because it protects people and the environment by keeping it out of rivers, lakes and streams and off the ground.

For recycling locations in your community, call DHEC's Office of Solid Waste Reduction and Recycling at **1-800-768-7348** or visit **www.scdhec.gov/environment/lwm/recycle/counties.htm**.

What can you do with unwanted electronics?

Unwanted electronics – such as computers, televisions and cell phones – are one of the largest known sources of heavy metals in the waste stream. Some electronics – usually those with picture tubes, circuit boards, batteries and mercury switches – contain lead, mercury, cadmium and chromium which can pose a risk to people and the environment if not managed properly. In addition, many components of unwanted electronics have value and should be recycled.

Look for ways to donate unwanted electronics. Reuse extends product life and allows nonprofits, churches, schools and community organizations to have equipment they otherwise may not be able to afford. Consider upgrading or repairing instead of buying new equipment.

When buying new equipment, check with the retailer or manufacturer to see if it has a "take-back" program that allows consumers to return unwanted equipment. Some programs are free while others charge a fee.

For a list of retailers and manufacturers that recycle electronics, visit **www.scdhec.gov/environment/lwm/recycle/pubs/e-waste_2.pdf**. For suggestions and guidelines for the proper reuse, recycling and disposal of computers and televisions in South Carolina, see the "Computer/Television Recycling Advisory" at **www.scdhec.gov/environment/lwm/recycle/pubs/ewtv_adv.pdf**.

Many local governments accept unwanted electronics for recycling either through ongoing programs or single-day collection events. For recycling options in your community, call DHEC's Office of Solid Waste Reduction and Recycling at **1-800-768-7348** or visit **www.scdhec.gov/environment/lwm/recycle/counties.htm**.

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Tips to take the 'hazardous' out of household products

Hazardous household waste (HHW) is leftover hazardous household products generated by residential consumers as opposed to manufacturers and businesses. These products include cleaners, pool chemicals, lawn and garden care products, paint products, automotive fluids, medicine and some beauty products. Products that are hazardous have at least one of the following characteristics:

- **flammable** – it can easily be set on fire;
- **corrosive or caustic** – it can burn you;
- **explosive or reactive** – it can explode if exposed to heat, sudden shock or pressure; or
- **toxic or poisonous** – it can cause injury or death through ingestion, inhalation or absorption through the skin.

Improper disposal of HHW can harm people and the environment. HHW in your garbage can release toxic fumes, explode or catch fire. If poured down drains and toilets, it can contaminate septic tanks or wastewater treatment plants. If poured on the ground or down storm drains, it can contaminate rivers, lakes and streams.

The waste management options in order of preference are waste reduction, reuse, recycling and disposal. Every effort should be made to minimize HHW. Using a non-toxic or less toxic alternative is the best option. If you cannot use the product, donate it to a friend or community organization.

For more information on HHW including recycling options, please call DHEC's Office of Solid Waste Reduction and Recycling at **1-800-768-7348** or visit **www.scdhec.gov/environment/lwm/recycle/pubs/hhp.pdf**.

GOT OLD PAINT? First, see if paint is accepted in your recycling program. (For a list of county recycling programs, visit **www.scdhec.gov/environment/lwm/recycle/counties.htm**.) If the paint can be used, donate it to someone (e.g., non-profit, church or school).

If you have to throw it away, here's how to do it properly. Remove the lid and allow the paint to dry in a well-ventilated area away from children and pets. You can add cat litter, shredded newspaper, saw dust or sand to speed up the drying process. Once the paint has dried, replace the lid and dispose of it in your household garbage.

What can you do?

Hazardous household products should be used, stored and disposed of properly. Here are some steps to protect your family and the environment.

Buy wisely.

- Make sure the product will do the job you want it to do.
- Buy only what you need to avoid leftover product.
- Consider buying non-toxic or less toxic alternatives.

Store products safely.

- Close lids tightly.
- Store products in a cool, dry place away from heat or flame.
- Store away from children and pets.
- Store products in original containers with labels intact.
- Store flammables, corrosives and poisons on separate shelves.

Use products safely.

- Read the label carefully and follow directions.
- Use only the recommended amount.
- Never mix products.
- Use the product in well-ventilated rooms and avoid breathing fumes.
- Use any eye or ear protection, gloves and protective clothing recommended.

get the point

Many people have medical conditions that require injections at home. These needles, syringes and lancets (or "sharps") must be disposed of properly. This ensures that other people, especially sanitation workers, will not be "stuck" or cut.

"Get the Point" promotes a safe and easy way to dispose of sharps. Home-generated sharps should be placed in an empty bleach or detergent bottle and labeled with a warning sticker from DHEC. (For FREE stickers, call **1-800-285-5257**.) Once the bottle is three-fourths full, the cap should be tightly secured and the bottle discarded in the trash.

BE SAFE WITH NEEDLES

STEP 1
Put a warning sticker on an empty bleach or detergent bottle.

STEP 2
Place used needles or lancets in the bottle.

STEP 3
Put the cap on the bottle.

STEP 4
When the bottle is three-fourths full, secure the cap and throw the bottle into the trash.

For more information, visit **www.scdhec.gov/getthepoint**.

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CFLs save energy, money but require special care

Most of us know that compact fluorescent light bulbs (CFLs) are energy efficient. They use about one-fourth the energy and last about 10 times longer than incandescent bulbs (light bulbs). This saves energy and money.

Many of us, however, are unaware that CFLs as well as other types of energy-efficient lighting contain mercury – which is toxic. When broken, compacted, crushed or disposed of improperly, CFLs may release mercury into the air, water and soil, posing a risk to people and the environment.

The good news is that recycling CFLs is easy to do. There are many companies that provide recovery and processing services including several in South Carolina. In addition, some local governments collect CFLs. Please call DHEC's Office of Solid Waste Reduction and Recycling at **1-800-768-7348** or visit **www.scdhec.gov/recycle** for more information on CFL recycling.

Making sense of mercury

To learn more about mercury and its potential impact on people and the environment, DHEC offers five fact sheets:

- What is Mercury?
- Where Does Mercury Come From?
- Mercury In the Home
- Health Effects of Mercury
- Cleaning Up Mercury Spills

For copies of these fact sheets, visit **www.scdhec.gov/mercury** or call **1-800-768-7348**. The Web address includes a link to S.C. fish consumption advisories.

Steps for cleaning up a broken fluorescent light bulb at home

The U.S. Environmental Protection Agency recommends the following clean-up and disposal guidelines.

Before cleaning-up

1. Have people and pets leave the room, and don't let anyone walk through the breakage area on their way out.
2. Open a window and leave the room for at least 15 minutes.
3. Shut off the central heating/air conditioning system, if you have one.

Clean-up steps for hard surfaces

4. Carefully scoop up glass fragments and powder using stiff paper or cardboard and place them in a glass jar with metal lid (such as a canning jar) or in a sealed plastic bag.
5. Use tape, such as duct tape, to pick up any remaining small glass fragments and powder.
6. Wipe the area clean with damp paper towels or disposable wet wipes and place them in the glass jar or plastic bag.
7. Do not use a vacuum or broom to clean up the broken bulb on hard surfaces.

Clean-up steps for carpets or rugs

4. Carefully pick up glass fragments and place them in a glass jar with metal lid (such as a canning jar) or in a sealed plastic bag.
5. Use tape, such as duct tape, to pick up any remaining small glass fragments and powder.
6. If vacuuming is needed after all visible materials are removed, vacuum the area where the bulb was broken.
7. Remove the vacuum bag (or empty and wipe the canister), and put the bag or vacuum debris in a sealed plastic bag.

Disposal of clean-up materials

8. Immediately place all clean-up materials outside in a trash container for the next scheduled trash pickup.
9. Wash your hands after disposing of the jars or plastic bags containing clean-up materials.

Future cleaning of carpets or rugs

10. The next several times you vacuum, shut off the central heating/air conditioning system and open a window prior to vacuuming.
11. Keep the central heating/air conditioning system shut off and the window open for at least 15 minutes after vacuuming is completed.

For more information, visit **www.epa.gov/mercury/spills/index.htm**.

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S.C. business assistance

DHEC offers several programs to assist S.C. businesses. The purpose of these programs is to help businesses improve performance while protecting South Carolina's environment and public health.

The programs on the following two pages offer free technical assistance, publications and online resources addressing a variety of issues including recycling and waste reduction, pollution prevention, beneficial reuse and compliance assistance.

South Carolina Smart Business Recycling Program

It doesn't cost. It pays.

Why should your business recycle?

Recycling can save you money in disposal costs (the less you throw away, the less you should pay) as well as conserve natural resources and energy. Recycling also may generate some revenue for your business through the sale of recyclables.

No matter what type of business – manufacturing, health care, retail, wholesale, food service, professional services or construction – your business can benefit from recycling.

By reporting your business' recycling activities to your county recycling coordinator, you can help South Carolina meet its recycling goal of 35 percent.

Recycling also plays a big part in the state's economy – providing 15,000 jobs, $69 million in annual tax revenue, $1.5 billion in annual personal income and $6.5 billion in total economic impact.

The S.C. Smart Business Recycling Program offers free, confidential, non-regulatory services to businesses, non-profits and other organizations including:

- Site visits to assess reuse, waste reduction and recycling opportunities;
- Technical assistance including telephone consultations and information on best management practices;
- Research and contacts for potential markets, service providers and beneficial reuse;
- A recognition program; and
- Workshops.

The S.C. Smart Business Recycling Program is a partnership of DHEC's Center for Waste Minimization, Small Business Environmental Assistance Program and Office of Solid Waste Reduction and Recycling as well as the S.C. Department of Commerce's Recycling Market Development Program.

For more information, visit **www.scdhec.gov/smartbusiness**. To schedule a site visit, e-mail **smartbiz@dhec.sc.gov** or call **1-800-768-7348**.

SCEEP

South Carolina Environmental Excellence Program

- **Is your organization committed to improving South Carolina's environment?**
- **Is your business seeking recognition for environmental accomplishments?**
- **Is your company looking for opportunity for regulatory flexibility?**
- **Is your facility considering networking with state regulatory officials and other industries committed to improving South Carolina's environment?**

Then consider joining the **S.C. Environmental Excellence Program** (SCEEP).

SCEEP is a voluntary program for companies committed to continuous environmental improvement in order to protect and preserve South Carolina's environment. Any S.C. organization, company or facility committed to reducing its waste streams through pollution prevention activities, and/or through reducing energy or other resource consumption with the goal of improving South Carolina's environment is eligible to participate.

Make the commitment to become an environmental leader. For more information, call **(803) 896-8986** visit **www.scdhec.gov/sceep.**

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S.C. Small Business ENVIRONMENTAL Assistance Program

A FREE, NONREGULATORY SERVICE OF DHEC

Many small businesses may not understand environmental regulations or have the resources to hire an environmental consultant.

The S.C. Small Business Environmental Assistance Program (SBEAP) is available to help with technical assistance, education, outreach and advocacy.

SBEAP is available to answer your questions on environmental permitting and compliance issues. SBEAP provides compliance assistance with an emphasis on air emission reporting and permitting requirements.

For more information, call **1-800-819-9001** or visit **www.scdhec.gov/sbeap**.

COMPASS

Compliance Assistance

Pointing You in the Right Direction

www.scdhec.gov/compass

COMPASS can provide you, your business, industry or government office with activities, tools or technical assistance services that provide clear and consistent information to help you understand and meet, or surpass, your environmental obligations.

Compliance assistance activities may include:

- Help to understand environmental regulations;
- On-site assistance;
- Workshops, conferences and training;
- Telephone assistance;
- Booklets, fact sheets and brochures;
- Special mailings; and
- Information on financial assistance.

Visit **www.scdhec.gov/compass** for information on these and other services. If you don't find what you are looking for, click on the "Who to Call" link.

CENTER FOR WASTE MINIMIZATION

HELPING COMPANIES IMPROVE ENVIRONMENTAL PERFORMANCE

Do you need help identifying ways to reduce your waste stream? Do you need help with identifying your environmental obligations? Then DHEC's Center for Waste Minimization (CWM) can help.

CWM provides facilities with information on waste minimization and pollution prevention as well as compliance assistance.

CWM also offers "The Index of Waste Minimization Resources" – which lists recyclers, vendors, services and substitutions – as well as a "Handy Guide for Environmental Compliance."

For more information, visit **www.scdhec.gov/cwm** or call **(803) 896-8986**.

GOT WASTE?

The **S.C. Materials Exchange** is a free online service that seeks to reduce waste by facilitating the exchange of reusable materials by BUSINESSES, NON-PROFIT INSTITUTIONS and GOVERNMENT.

It serves as a "matchmaking service" that provides users access to information on materials available or wanted.

The benefits of using a materials exchange may include:

- Finding valuable materials for free or less than the cost of new materials;
- Reducing waste disposal costs; selling surplus materials for profit;
- Conserving natural resources; and
- Demonstrating your environmental responsibility to others.

Visit **www.scdhec.gov/scme** or call **1-800-768-7348** for more information.

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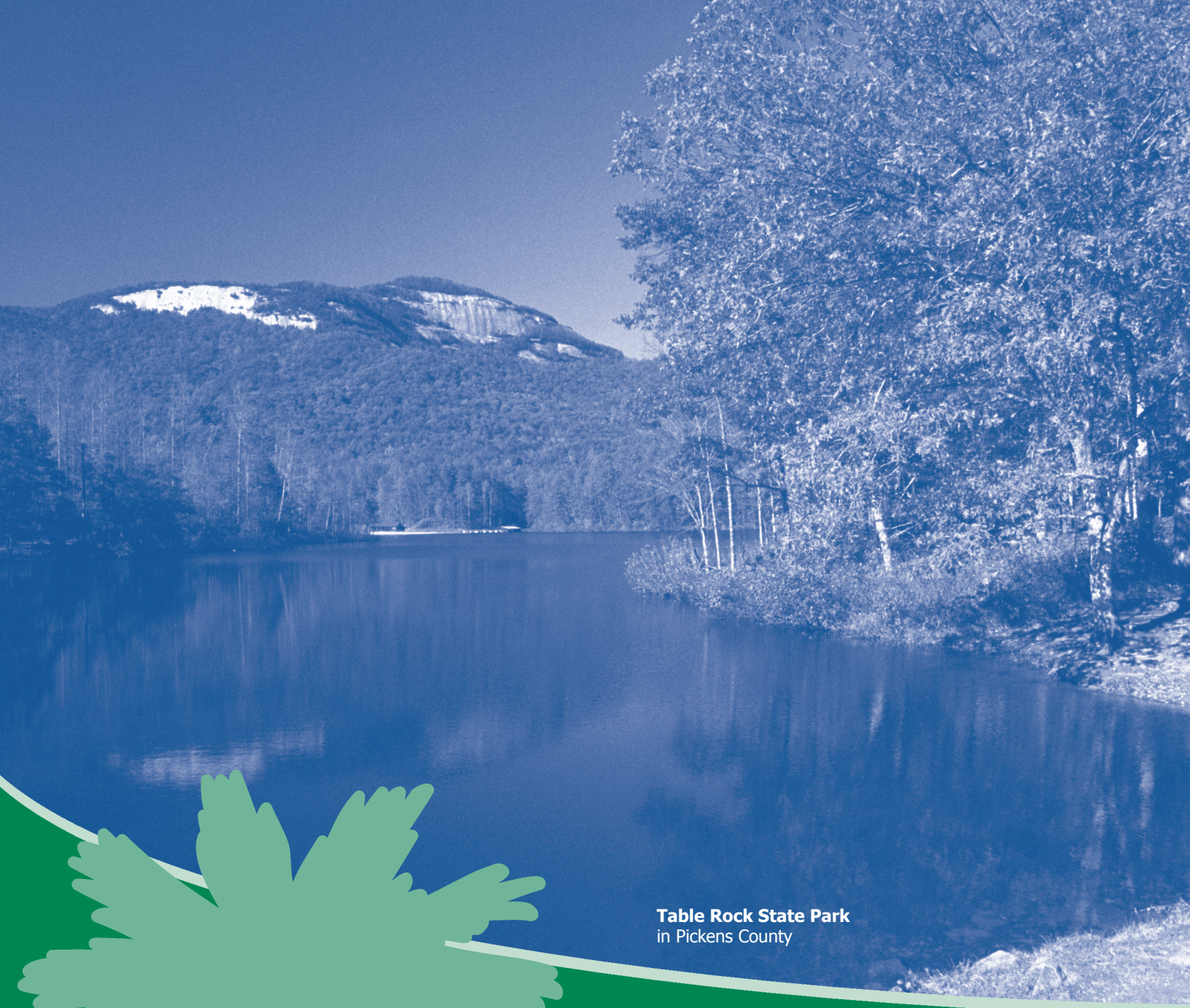

Table Rock State Park
in Pickens County

D H E C

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