



S.C. DHEC Bureau of Air Quality

# RESOURCE GUIDE



**SPARE THE AIR**  
south carolina



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# INTRODUCTION

Dear Stakeholder,

In striving to reach our goal to increase awareness about air quality issues and contributions that citizens and businesses can make to reduce harmful emissions, we have developed this education/awareness resource guide.

The resource guide contains information and ideas to assist you in improving air quality in your area. It presents a snapshot of effective and viable options for reducing air pollution. A challenge that was faced in preparing this manual is that many relevant issues and topics can change over time: motor vehicle technologies advance, new fuels become available, certain funding opportunities end while new funding sources emerge, and some web links become outdated.

SC DHEC is committed to keeping this guide current by releasing periodic updates and will inform stakeholders as updates become available. Please contact Channell Webster at (803) 898-4372 ([webstecv@dhec.sc.gov](mailto:webstecv@dhec.sc.gov)) if you have an idea or program that we should consider highlighting in the next release of this guide or if you have any other relevant information that we should share with others.

Meeting the national air quality standards means creating a healthier environment in our state. Thank you for all the hard work that you have done and all that will be done in the future! We look forward to working with you.

- Bureau of Air Quality  
SC Department of Health and Environmental Control  
(803) 898-4123

## Purpose

The purpose of the Resource Guide is to share ideas for encouraging local businesses, industries, citizens, and governments to take voluntary actions to reduce air pollution emissions.

Most importantly, reducing air pollution benefits everyone by creating a healthier environment. Do your part to help spare the air! We have compiled a listing of a variety of measures to improve the state's air quality. Many of these programs require little direct financial investment and little staff time to implement. Since emission reduction actions typically reduce the use of fuel and electrical power, they may provide a cost savings as well.

## Available Resources

To view our available resources visit, [www.scdhec.gov/environment/baq](http://www.scdhec.gov/environment/baq).

To request printed copies of these materials, please contact (803) 898-4123.

# BACKGROUND

## WHAT IS THE CLEAN AIR ACT

The Clean Air Act (CAA), originally enacted in 1963, revised in 1970 and 1977, and amended in 1990, is a federal law that applies to the entire United States. This law limits the concentration of certain air pollutants in the outdoor air. Its nationwide applicability ensures that Americans living in all areas of the country can expect the same basic protection in regards to their health and environment.

Under the CAA, the EPA is responsible for setting nationwide limits on air pollution concentrations, establishing air quality standards, and placing requirements on metropolitan areas not attaining those standards. The CAA requires EPA to set National Ambient Air Quality Standards for six common air pollutants. These commonly found air pollutants (also known as “criteria pollutants”) are found all over the United States.

They are particle pollution (often referred to as particulate matter), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. These pollutants can harm your health, the environment, and cause property damage. Of the six pollutants, particle pollution and ground-level ozone have the most widespread health threats. EPA calls these pollutants “criteria” air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels. Two types of national air quality standards have been established for each criteria pollutant under the CAA. Primary standards set limits to protect human health, while secondary standards set limits to prevent environmental and property damage. EPA designates areas that have failed to meet an air quality standard as nonattainment for that standard.

*For additional information regarding the Clean Air Act, please see the “The Plain English Guide to the Clean Air Act.” at [www.epa.gov/air/peg/peg.pdf](http://www.epa.gov/air/peg/peg.pdf)*

## WHAT IMPACT WOULD NONATTAINMENT HAVE ON SOUTH CAROLINA

In addition to the health concerns to both healthy and at-risk populations in areas not meeting the standards,

mandatory CAA requirements will be triggered in areas designated nonattainment.

Industries and large businesses will be required to undergo a more rigorous air permitting program for major projects. The threshold for major status may also be significantly reduced to affect more sources.

Within one year of designation, general and transportation conformity issues apply. Conformity ensures projects utilizing federal funds do not have an adverse impact on an area’s air quality. Transportation conformity becomes an integral part of transportation planning in nonattainment areas.

In addition to nonattainment requirements, states may have to implement other control strategies to improve air quality. These may include additional controls on existing industrial facilities. Those strategies will be included in a State Implementation Plan (SIP) revision, due to EPA within 3 years after an area has been designated as nonattainment.

In simple terms, if South Carolina has areas classified as nonattainment, economic development could be restricted. Nonattainment classifications could also cost the state financially and affect employment.

*More specific information related to nonattainment designation may be found on the Environmental Protection Agency’s website at [www.epa.gov/air/caa/title1.html#id](http://www.epa.gov/air/caa/title1.html#id)*

## NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

The Environmental Protection Agency is responsible for setting National Ambient Air Quality Standards for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. Primary standards are established to protect public health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. The six principal pollutants for which there are National Ambient Air Quality Standards include:

## Criteria Air Pollutants

- **Ozone (O<sub>3</sub>):** Ozone is a colorless, nearly odorless, toxic gas. In the upper atmosphere, ozone protects us from the sun's UV light, but at ground level, ozone is unhealthy. Ground-level ozone is formed when volatile organic compounds (VOCs) and oxides of nitrogen (NO<sub>x</sub>) "cook" in the sunlight. Sources of VOCs and NO<sub>x</sub> include motor vehicles, chemical plants, refineries, factories, consumer and commercial products and other industrial sources.
- **Particulate Matter (PM):** Particulate Matter is the general term used for a mixture of solid particles and liquid droplets found in the air. Currently, there are two standards for particulate matter, PM<sub>10</sub> and PM<sub>2.5</sub>. Particulate Matter comes from a wide variety of stationary, mobile, and natural sources. For example, power production, cement manufacturing, combustion sources, fireplaces, diesel trucks, and forest fires.
- **Carbon Monoxide (CO):** Carbon Monoxide is a colorless and odorless gas which is formed when carbon in fuel is not completely burned. It is the component of motor vehicle exhaust which constitutes about 60% of all CO emissions nationwide. Other sources of CO emissions include industrial processes, non-transportation fuel combustion, and natural resources, such as wildfires.
- **Nitrogen Dioxide (NO<sub>2</sub>):** Nitrogen Dioxide is a reddish-brown, highly-reactive gas that is formed in the ambient air through the oxidation of nitric oxide. They play a major role in the formation of ozone, particulate matter, haze and acid rain. The major source of man-made NO<sub>x</sub> emissions is the high temperature combustion process of automobiles, trucks, and power plants.
- **Sulfur Dioxide (SO<sub>2</sub>):** Sulfur dioxide is a gas most often formed from the burning of coal and oil. It is part of smog and acid rain. Fuel combustion, largely from coal-fired power plants, accounts for most of the total SO<sub>2</sub> emissions.

- **Lead (Pb):** Lead is a solid metal that can be found in air in a dust-like form called particulate matter. Today, industrial processes (primarily metal processing) are the major source of lead emissions.

## Greenhouse Gas Emissions

Gases that trap heat in the atmosphere are often called greenhouse gases. Some greenhouse gases such as carbon dioxide occur naturally and are emitted to the atmosphere through natural processes and human activities. Other greenhouse gases (e.g., fluorinated gases) are created and emitted solely through human activities. The principal greenhouse gases that enter the atmosphere because of human activities are:

- **Carbon Dioxide (CO<sub>2</sub>):** Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH<sub>4</sub>):** Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- **Nitrous Oxide (N<sub>2</sub>O):** Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
- **Fluorinated Gases:** Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances (i.e., CFCs, HCFCs, and halons). These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High Global Warming Potential gases ("High GWP gases").

# AIR QUALITY INITIATIVES

## AGENCY INNOVATIONS PROGRAMS

### ■ Program Name: Breathe Better (B<sup>2</sup>) Program

**Program Description:** The B<sup>2</sup> program is an anti-idling/clean air campaign. The goal of B<sup>2</sup> is to help protect the health and safety of children by reducing harmful vehicle emissions around school campuses. Emissions are reduced through the efforts of students, faculty, administration, staff, local government and community partners working together. In addition to idle reduction, schools may choose to promote other strategies such as carpooling, increasing school bus ridership, and biking and walking to school in conjunction with the B<sup>2</sup> program.

*Strategies that reduce vehicle idling will reduce emissions of all pollutants, since some of each pollutant is produced during engine operation even if a motor vehicle is not moving. Specifically, the combustion process results in exhaust emissions of all seven pollutants. Running loss evaporative emissions also occur during idling, as the hot engine and exhaust system vaporizes gasoline, causing additional release of VOCs. (Source: Federal Highway Administration: "Multi-Pollutant Emissions Benefits of Transportation Strategies." November 14, 2006.)*

**Other:** For more information visit: [www.scdhec.gov/b2](http://www.scdhec.gov/b2)

**Contact:** Debra Briggs-Monroe, (803) 898-3752 or [briggsm@dhc.sc.gov](mailto:briggsm@dhc.sc.gov)

### ■ Program Name: Lawn Mower Exchange

**Program Description:** Program which provides an opportunity for the community to trade in their working gas powered lawn mowers and receive a rebate towards the purchase of an electric, propane, or reel mower.

*In the hour it takes you to mow your lawn, your gas-powered lawn mower produces as much air pollution as driving a car 200 miles! An estimated 17 million gallons of gasoline are spilled refueling lawn equipment in the*

*U.S. every year, releasing harmful fumes into the air and contaminating our ground water.*

**Other:** For more information visit: [www.scdhec.gov/lawnmowerexchange](http://www.scdhec.gov/lawnmowerexchange)

**Contact:** Channell Webster, (803) 898-4372 or [webstecv@dhc.sc.gov](mailto:webstecv@dhc.sc.gov)

### ■ Program Name: Take a Break from the Exhaust (TABFTE)

**Program Description:** TABFTE is a web-based program that encourages participants to reduce their daily vehicle miles traveled through a variety of activities. Each activity is assigned points and the program tracks behavior changes as participants log in their daily activities. These points are tallied individually or as a team. This program helps reduce vehicle emissions from being released into our air, which reduces South Carolina's ground-level ozone levels!

*Reduction in vehicle travel can occur in several ways, including shifts from driving to other modes (i.e., transit, bicycling, walking), increasing vehicle occupancy, reducing the number of trips made (e.g., through telecommuting), or reducing vehicle trip lengths (e.g., through better land use mixing). Strategies that reduce vehicle miles traveled will reduce emissions of all pollutants. Each mile that a vehicle travels, it emits more pollution, so reducing vehicle travel mileage will reduce emissions of all seven gases. (Source: Federal Highway Administration: "Multi-Pollutant Emissions Benefits of Transportation Strategies." November 14, 2006.)*

**Other:** For more information visit: [www.scdhec.gov/takeabreak](http://www.scdhec.gov/takeabreak)

**Contact:** Jack Porter, (803) 898-3829 or [porterje@dhc.sc.gov](mailto:porterje@dhc.sc.gov)

### ■ Program Name: Diesel Emissions Reduction Program

**Program Description:** A diesel fleet emission reduction program is one or more actions that produce measurable reduction in NO<sub>x</sub> and other air pollutants.

These actions may include retrofitting existing equipment with catalysts, filters, traps; replacing the oldest vehicles in the fleet (which generally are not cost-effective to retro-fit) and moving to lower-sulfur fuels with the goal of using Ultra-Low Sulfur Diesel (ULSD) as soon as possible.

The EPA State Clean Diesel Grant Program has provided an opportunity to help reduce diesel emissions under the federal Diesel Emissions Reduction Act (DERA). Through partnerships and in-kind efforts, South Carolina was able to make funds available for a competitive grant process within the state.

*By retrofitting vehicles and operating them on ultra-low sulfur diesel fuel, emissions of carbon monoxide, hydrocarbons and particulates can be reduced.*

**Other:**

For more information visit: [www.scdhec.gov/dera](http://www.scdhec.gov/dera)

**Contact:** Brian Barnes, (803) 898-7099 or [barnesbk@dhec.sc.gov](mailto:barnesbk@dhec.sc.gov)

Lisa Clark, (803) 898-0717 or [clarkmb@dhec.sc.gov](mailto:clarkmb@dhec.sc.gov)

■ **Program Name: Spare the Air Awards**

**Program Description:** Annual program sponsored by SC DHEC Bureau of Air Quality to recognize innovative programs and projects that excel in protecting the environment. The environmental leaders that are recognized through this awards program (i.e., companies, groups, communities, schools, local governments and individuals) demonstrate their commitment to improving air quality by implementing new policies, ideas, or methods that promote a healthier and cleaner South Carolina. All efforts must be voluntary and should yield a measurable reduction in air pollution. Nominees should exhibit good environmental stewardship, exercise positive environmental practices, and promote environmental awareness.

**Other:** For more information visit: [www.scdhec.gov/sparetheairawards](http://www.scdhec.gov/sparetheairawards)

**Contact:** Debra Briggs-Monroe, (803) 898-3752 or [spareair@dhec.sc.gov](mailto:spareair@dhec.sc.gov)

■ **Program Name: Car Care Awareness Campaign**

**Program Description:** Car Care Awareness Campaign is designed to help individuals save money and our

environment by taking an active role in maintaining their vehicle. Traditionally recognized each year during April and October, it's a way that individuals can help eliminate one of the biggest sources of air pollution: personal vehicle emissions!

**Other:** To learn more, visit the "Be Car Care Aware" website, [www.carcare.org](http://www.carcare.org)

**Contact:** Channell Webster, (803) 898-4372 or [webstecv@dhec.sc.gov](mailto:webstecv@dhec.sc.gov)

■ **Program Name: Commuter Bus Service/SmartRide**

**Program Description:** The SmartRide Commuter-Focused Transit Program, sponsored by SC Department of Transportation and local partners, serves commuters traveling from the Camden/Lugoff and Newberry areas to downtown Columbia during the workweek. The Charlotte Area Transit System (CATS) 82X Route and 78X Celanese Corridor Express offers a similar service for commuters from downtown Rock Hill and York County to uptown Charlotte.

*New bus or rail services include any additions to the provision of services through the establishment of new routes, increased frequency, and hours of operation or coverage of routes. Emissions reductions occur when the expanded service encourages people to replace driving trips with transit. Improved transit service involves increasing the frequency or hours of service on existing transit routes. This strategy increases transit ridership and decreases auto trips in several ways. First, increased frequency of service generally results in increased ridership because transit becomes a more convenient transportation option. Waiting time for transit is reduced, leading to a faster trip (start to end). Second, increasing hours of service allows people to use the route at hours that were not previously available. New transit routes and increased transit service frequency or hours of operation should reduce emissions of all pollutants by reducing VMT. However, emissions benefits will not be proportional for all pollutants, since the buses also emit pollution, and diesel buses produce higher levels of NOx and PM per mile compared to autos.*

**Other:** To learn more about SmartRide, visit [www.scdot.org/getting/Smartride/smartride.shtml](http://www.scdot.org/getting/Smartride/smartride.shtml). To learn more about the 82X and 78X routes, visit [wirelesscats.ridettransit.org](http://wirelesscats.ridettransit.org).

**Contact:** If you have any questions or comments about the SmartRide Research Project, please call the SCDOT Mass Transit Office at (803) 737-0831.

# AIR QUALITY INITIATIVES (CONT.)

## AWARENESS

### ❑ **Ozone Forecast**

Knowing the forecast enables individuals and businesses to take action to protect their health and reduce their contribution to the ozone problem. There are several convenient ways to access the ozone forecast.

- **Telephone:** Receive the ozone forecast by dialing 1-866-238-4973. (Ozone forecast is updated daily before 4 p.m. for the following day)
- **Internet:** To view the ozone forecast, visit [www.scdhec.gov/ozone](http://www.scdhec.gov/ozone) and click “Daily Ozone Forecast.”
- **Email:** EnviroFlash is a free service that provides you with information about the air quality in the location of your choice via a daily email. Sign up to receive the ozone forecast at [www.enviroflash.info](http://www.enviroflash.info).
- **Media:** The media (radio, TV, and newspapers) as well as local traffic centers and National Weather Service are contacted if an Ozone Action Day is predicted.

**Suggestion:** At a workplace, an employee can be designated to receive the forecast (by signing up with EnviroFlash) and in turn, distribute this to other employees each day, or only on days when an Ozone Action Day is forecast. (For sample Enviroflash outreach materials, see Appendix A)

### ❑ **Southeast Diesel Collaborative**

This partnership involves leaders from government, private companies and nonprofit organizations in the Southeast. Their common goal is to improve air quality by encouraging the use of clean, renewable energy and technology to reduce diesel emissions from existing engines and equipment from the agriculture, heavy construction and on-road sectors.

**Other:** For more information visit: [www.southeastdiesel.org](http://www.southeastdiesel.org).

### ❑ **Palmetto State Clean Fuels Coalition**

The Palmetto State Clean Fuels Coalition is part of the Clean Cities program and is one of 88 designated coalitions in the United States. Coordinated by

the U.S. Department of Energy, the Coalition was developed to reduce dependence on petroleum as a transportation fuel through expanded use of alternative fuel sources and through the use of hybrid vehicles.

The goal of the Clean Cities program is to promote energy use in the transportation sector that is clean, safe, less dependent upon foreign sources, and sustainable.

For more information visit: [www.palmettocleanfuels.org](http://www.palmettocleanfuels.org).

## POLICY OPTIONS

### ❑ **Alternative Work Schedule (AWS)**

With AWS, employees work the same amount of hours, but schedules are adjusted to spread out travel times, resulting in reduced rush-hour traffic congestion, reduced emissions from idling vehicles, and improved air quality. The advantage for the employee is greater ability to match work hours to lifestyle needs.

#### **Options include:**

- **Flex-Scheduling:** Allows employees the freedom to select their own start and leave times. Flextime primarily helps reduce the number of cars on the road during peak commute hours
- **Compressed Work Week:** Consists of allocating working hours into fewer than five days per week or fewer than ten days per two-week period. The compressed work schedule can be either fixed or flexible. For example, a four-day work week (employees work nine to ten hours per day, depending on the total hours per week, four days a week); the 5-4-9 plan (employees work approximately nine hours per day, five days per week, and four days the next, on a two week cycle). The compressed work week best achieves reduction of gas use, air pollution, and congestion because trips are totally eliminated.

## What are the benefits

- Fewer vehicles on the road reduce peak hour traffic congestion and vehicle idling.
- Employees have greater flexibility in planning personal and medical appointments using less leave time.
- Employers retain talented staff with unique needs in balancing professional and personal commitments.
- Morale is increased and stress is reduced, both at in and out of the office.

## So How Do I Get Started

- Employers can establish a written policy (Appendix B.1), including a signed agreement between employer and employee clearly outlining the rules, guidelines and requirements for participation. Coordinate AWS and flexible work schedules with co-workers to ensure adequate department and office coverage.
- Encourage participation through e-mail notification and newsletters. Promote the health and environmental benefits of AWS.

## Resources for Alternate Work Schedules:

- **Commuter Services of South Central Pennsylvania** has information on the basics of telecommuting and flexible scheduling.  
[www.pacommuterservices.com/telework.html](http://www.pacommuterservices.com/telework.html)
- **GreenYour.com** Search for anything you want to green and find eco-friendly facts, tips, and products.  
[www.greenyour.com](http://www.greenyour.com)
- **Handbook on Alternative Work Schedules (U.S. Office of Personnel Management)** provides a framework in establishing and administering alternative work schedules and similar programs.  
[www.opm.gov/oca/aws/INDEX.asp](http://www.opm.gov/oca/aws/INDEX.asp)
- **Take a Break from the Exhaust (TABFTE)**  
This South Carolina Department of Health and Environmental Control program is a free software tool that companies can provide their employees to monitor and calculate their daily routines based on commute behaviors.  
*For more information on this program, please visit [www.scdhec.gov/takeabreak](http://www.scdhec.gov/takeabreak).*

- **You Hold the Key, SC** was created by South Carolina Department of Health and Environmental Control to provide resources for you to learn about how you can reduce vehicle miles traveled (VMT) and mobile source emissions during your daily commute, as well as improving air quality in our state. [www.scdhec.gov/YouHoldtheKeySC](http://www.scdhec.gov/YouHoldtheKeySC)

## Alternative Commute Options

Offering alternative commuter options reduces traffic congestion and the negative impact on the environment. It also benefits the participant by saving money and reducing stress.

Options include:

### **TELECOMMUTING**

Telecommuting allows employees to reduce their commute by performing all or some of their work away from their normal place of business. While telecommuting, employees may work from home or a satellite office. Telecommuters reduce vehicle miles traveled and mobile source emissions, improving air quality.

### **What are the benefits?**

- Telecommuters take less trips to and from the workplace, reducing the number of vehicles on the road. This reduces overall vehicle emissions, improving air quality.
- Many workplaces have reported increased productivity and lower turnover as a result of working in a quiet environment with minimal interruptions and have an increased ability to focus on specific work tasks.
- Employees experience less stress caused by commuting, such as physical discomfort, air pollution, fuel costs, and vehicle maintenance.
- When offered as an employee benefit, telecommuting can help employers with recruitment and retention.
- Telecommuting employees can continue to work at home with minor ailments that might otherwise result in loss of work time and potential spread of illness around the office.
- Employers benefit from continued operation despite any weather conditions that may keep employees away from the office.
- Employers can reduce overhead costs such as office expansion and additional parking spaces as their workforce expands.

## So how do I get started?

- Establish a written policy (Appendix B.2), including a signed agreement between employer and employee clearly outlining the rules, guidelines and requirements for participation. Work schedules may need to be coordinated to ensure adequate department and office coverage.
- Provide training for managers and employees to assist with managing productivity and maintaining communications with management, co-workers and customers while telecommuting.
- Provide financial incentives to employees to set-up home offices.
- Provide capability for employees to access employer networks from remote locations while telecommuting.
- Encourage participation through e-mail notification and newsletters. Promote the health and environmental benefits of reducing mobile source emissions.

## Additional Resources for Telecommuting

- The **U.S. Office of Personnel Management** has put together information on the basics of telecommuting.  
[www.opm.gov/perform/articles/2001/fal01-2.asp](http://www.opm.gov/perform/articles/2001/fal01-2.asp)
- The **Connecticut Department of Transportation** website provides a comprehensive toolkit for the design and implementation of successful telecommuting programs.  
[www.telecommutect.com/homeplate/home.php](http://www.telecommutect.com/homeplate/home.php)
- **Take a Break from the Exhaust (TABFTE)**  
This South Carolina Department of Health and Environmental Control program is a free software tool that companies can provide their employees to monitor and calculate their daily routines based on commute behaviors. For more information on this program, please visit [www.scdhec.gov/takeabreak](http://www.scdhec.gov/takeabreak).
- **You Hold the Key, SC** was created by South Carolina Department of Health and Environmental Control to provide resources for you to learn about how you can reduce vehicle miles traveled (VMT) and mobile source emissions during your daily commute, as well as improving air quality in our state. [www.scdhec.gov/YouHoldtheKeySC](http://www.scdhec.gov/YouHoldtheKeySC)

## CARPOOL/VANPOOL

Involves two or more people sharing a ride to a destination point rather than each person independently driving separate vehicles. Sharing a ride with someone that you work with is one of the easiest ways to alternatively commute to work.

## What are the benefits?

- Reducing the number of vehicles on the road reduces overall vehicle emissions, thereby improving air quality.
- Gasoline consumption drops. Billions of gallons of fuel are wasted as vehicles idle in traffic congestion each year. (Source: Texas Transportation Institute)
- Costs for proper maintenance for your vehicle and fuel can decrease when you share them through carpool or vanpool members.
- Stress Reduction. Provides time for reading, working or relaxing that might otherwise be spent idling in traffic.

## So how do I get started?

- For an individual interested in finding carpool partner or partners, first consider your personal requirements. Are you comfortable with smoking, food or music in your vehicle? Do you want to take turns driving or share expenses? (See appendix B.3 for other considerations.) Place an ad on a bulletin board at work or school, or place a listing on a ride sharing website. Do not include identifying information in an online carpool ad, and consider meeting prospective carpool partners you've contacted online in a public place before arranging to carpool.
- For an employer or organization interested in establishing a carpool program, consider the potential for use. Is there a critical mass of employees working in a small geographic area? Are work schedules predictable? Are there long-distance commuters? Is there a parking shortage? These factors can enhance the appeal of carpooling.
- Provide a forum for finding ride matches. This can be as simple as a bulletin board for posting ride requests.
- Consider establishing an incentive program to reward carpoolers. This could consist of preferred parking, recognition, or prize drawings. A guaranteed or emergency ride home program

is another important incentive. It can increase participation by reassuring carpoolers that they will have a way home if carpool plans are disrupted by unexpected overtime or illness.

- Additional information can be found in Appendix B.3.

### **Resources for Carpool/Vanpool**

- **eRideShare** [www.erideshare.com](http://www.erideshare.com)
- **Ridesearch** (for Businesses) [www.ridesearch.com/default.aspx](http://www.ridesearch.com/default.aspx)
- Your business may qualify to be a **Best Workplaces for Commuters** which might attract prospective employees. [www.bestworkplaces.org](http://www.bestworkplaces.org)
- **You Hold the Key, SC** was created by South Carolina Department of Health and Environmental Control to provide resources for you to learn about how you can reduce vehicle miles traveled (VMT) and mobile source emissions during your daily commute, as well as improving air quality in our state. [www.scdhec.gov/YouHoldtheKeySC](http://www.scdhec.gov/YouHoldtheKeySC)

### **PUBLIC TRANSPORTATION**

Public transportation systems are designed to move a large number of passengers more efficiently than single passenger vehicles. They can help reduce air pollution and traffic congestion by taking more passenger vehicles off the roads.

#### **What are the benefits?**

- Fewer vehicles on the roads decrease rush-hour traffic congestion.
- Reducing mobile source pollution can improve air quality and have positive impacts on human health and the environment.
- The costs of using mass transit is often less than the monthly cost of operating a personal vehicle; especially when you include fuel costs, parking fees, and regular maintenance.
- Provides more opportunities for individuals who may not own or have access to a personal vehicle.
- Taking advantage of public transportation opportunities provides time for reading, working or relaxing that might otherwise be spent idling in traffic.

#### **So how do I get started?**

- A flexible work schedule may be necessary for an employee to take advantage of using mass transit depending on schedules and considering possible delays.
- Employers can encourage participation by providing information on public transportation routes and opportunities. This can be done through a local magazine or newspaper, community newsletter, emails, internet forums and blogs, schools, or word of mouth.
- Raise awareness with employers and employees on the health and environmental benefits of reducing mobile source emissions. Work with a local transit authority to offer free or reduced-price rides on Ozone Action Days.

### **Resources for Public Transportation**

For additional information or to locate a public transportation provider near you:

#### **Lowcountry**

- **TriCounty Link** (Berkeley, Charleston and Dorchester Counties) [www.ridetricountylink.com](http://www.ridetricountylink.com)
- **Charleston Area Regional Transportation Authority** (CARTA) [www.ridecarta.com](http://www.ridecarta.com)

#### **Midlands**

- **Central Midlands Regional Transit Authority** (CMRTA) [www.gocmrta.com](http://www.gocmrta.com)
- **SmartRide** (originates out of the Camden/Lugoff area and the Newberry/Little Mountain/Chapin area into the downtown Columbia area.) [www.scdot.org/getting/Smartride/smartride.shtml](http://www.scdot.org/getting/Smartride/smartride.shtml)

#### **Upstate**

- **Greenlink** (Greenville County) [www.ridegreenlink.com](http://www.ridegreenlink.com)
- **Clemson Area Transit** (CAT Bus) [www.catbus.com](http://www.catbus.com)
- **Spartanburg Area Regional Transit Authority** (SPARTA) [www.spartabus.com](http://www.spartabus.com)

## **Pee-Dee and Myrtle Beach**

- **Pee Dee Regional Transit Authority** (Chestertown, Darlington, Dillon, Florence, Marion, and Marlboro Counties)  
[www.pdrta.org](http://www.pdrta.org)
- **COAST Regional Transportation Authority** (Horry and Georgetown Counties)  
[www.coastrta.com](http://www.coastrta.com)

## **York County**

- **Charlotte Area Transit System** (downtown Rock Hill and York County to uptown Charlotte)  
[wirelesscats.ridetransit.org](http://wirelesscats.ridetransit.org)

## **Statewide and Federal**

- **The South Carolina Department of Transportation (SCDOT)** -offers a listing of our state's public transportation providers  
[www.dot.state.sc.us/getting/public\\_providers.shtml](http://www.dot.state.sc.us/getting/public_providers.shtml)
- **U.S. Federal Highway Administration (USFHWA)**  
[www.fhwa.dot.gov](http://www.fhwa.dot.gov)
- **U.S. Department of Transportation (USDOT)**  
[www.dot.gov/new/index.htm](http://www.dot.gov/new/index.htm)

## **BIKING/WALKING**

Walking and biking are good transportation choices for those within a relatively short, safe distance from work, shopping, or school. Others may be able to bike or walk to a bus stop or park and ride location.

### **What are the benefits?**

- Reduces the number of vehicles on the road and traffic congestion, thereby improving air quality.
- A walking and biking commute promotes a healthy lifestyle by encouraging daily exercise and reducing stress.
- It saves gas money and vehicle maintenance expenses.
- Provides safer travel for everyone by increasing driver awareness and promoting enhancements or improvements for sidewalks and bike lanes.
- Promotes a sense of community by providing opportunities for neighbors, coworkers, and community members to interact and socialize.

## **So how do I get started?**

### **Resources for South Carolina communities and workplaces:**

- **Pedestrian and Bicycle Information Center** is a good resource for examining issues that impact pedestrians and cyclists and encouraging more bicycle/pedestrian activity. [www.bicyclinginfo.org](http://www.bicyclinginfo.org)
- **League of American Bicyclists** offers a Bicycle Friendly Community designation.  
[www.bikeleague.org](http://www.bikeleague.org)
- **Bicycle and Pedestrian Program** - From the SC Dept. of Transportation, committed to meeting the on-going challenge of providing better and safer accommodations for people who choose to walk or cycle.  
[www.scdot.org/getting/bikeped/BP\\_default.shtml](http://www.scdot.org/getting/bikeped/BP_default.shtml)
- **Pedestrian and Bicycle Information Center** offers information and training to diverse audiences about health and safety, engineering, advocacy, education, enforcement, access, and mobility as it relates to pedestrians and bicyclists.  
[www.pedbikeinfo.org](http://www.pedbikeinfo.org)
- **Palmetto Cycling Coalition** - Bicycle advocacy organization working to make South Carolina more bicycle friendly for everyone.  
[www.pccsc.net](http://www.pccsc.net)
- **South Carolina Bicycle Laws** (SCDOT)  
[www.scdot.org/getting/pdfs/bike\\_laws.pdf](http://www.scdot.org/getting/pdfs/bike_laws.pdf)
- **Bicycle Safety Brochure** (SCDHEC)  
[www.scdhec.gov/administration/library/ML-025421.pdf](http://www.scdhec.gov/administration/library/ML-025421.pdf)

### **Resources for Biking/Walking for Schools:**

- **SC Safe Routes to School (SCDOT)**  
[www.scdot.org/community/saferoutes.shtml](http://www.scdot.org/community/saferoutes.shtml)
- **KidsWalk-to-School** – Centers for Disease Control and Prevention (CDC), information about the benefits of walking and resources for starting a program  
[www.cdc.gov/nccdphp/Dnpa/kidswalk](http://www.cdc.gov/nccdphp/Dnpa/kidswalk)
- **School audits** – Pedestrian and Bicycle Information Center, tools to help determine the “walkability” of a school and its surrounding neighborhoods  
[www.walkinginfo.org/problems/audits-school.cfm](http://www.walkinginfo.org/problems/audits-school.cfm)

## ❑ **Open Burning**

South Carolina has regulations restricting open burning. Encourage citizens to mulch land and cleanup debris, rather than burning it. Reducing open burning promotes health by preventing accidental fires and reducing fire particle pollution. For more information visit, [www.scdhec.gov/openburning](http://www.scdhec.gov/openburning)

## ❑ **Restrict mowing days and times.**

Mowing restrictions can be put in place during the entire year, during ozone season, or during ozone action days. Encourage citizens to defer lawn and gardening chores that use gasoline-powered equipment until after 6 p.m. to help reduce the emission of pollutants that form ground-level ozone. Promote the inclusion of more natural areas in a yard or on building grounds to reduce the amount of grass that requires mowing. This type of landscaping also helps to reduce staff time for mowing, less time weeding, and less time seeding the area. Promote the use of non gas-powered lawn mowers. For more information, visit [www.scdhec.gov/lawnmowerexchange](http://www.scdhec.gov/lawnmowerexchange).

## ❑ **Local Government Energy Plan**

A local energy plan is a compilation of actions local governments can take to reduce their energy consumption. By developing and implementing a plan, communities can save money and contribute to improved air quality. This could include retrofitting municipal buildings, city schools and street lights for energy efficiency. Other ideas for reducing energy use include white roofs, promoting transportation alternatives, and encouraging recycling and composting.

For more information on energy efficiency visit [www.energystar.gov](http://www.energystar.gov) or [www.energy.sc.gov](http://www.energy.sc.gov).

## ❑ **Green Power Purchase**

The term “green power” generally refers to electricity supplied in whole or in part from renewable energy sources, such as wind and solar power, geothermal sources, hydropower, and various forms of biomass. By choosing to purchase green power, you can support increased development of renewable energy sources, which can reduce the burning of fossil fuels, such as coal, oil, and natural gas. For more information visit: [www.scgreenpower.com](http://www.scgreenpower.com)

## ❑ **Promotion of expanded use of low emissions technology, energy efficient technology, etc.**

- Create a property tax break for alternative fuel vehicles.
- Offer area businesses tax incentives to use their parking lot(s) as park-and-ride locations.
- Partner with the local mass transit system(s) to offer discount or half-price rides on ozone action day(s).
- Install bike racks next to city/county buildings.
- Update building codes so that only energy-efficient products can be used in new construction or remodeling.
- Request that utilities include energy saving tips in monthly bills.
- Support tighter emission requirements for construction equipment and other off-road sources.
- Support federal and state incentives for low emissions and alternative fuel vehicles.

## ❑ **Assess vehicle registration fee to fund repair/retirement program for high-emitting/polluting vehicles.**

## ❑ **Truck Stop Electrification**

Truck stop electrification is a technology that can reduce fuel use and emissions associated with long-duration engine idling. Truck stops provide truck drivers with an electric power source instead of idling. For more information, visit [www.idleaire.com](http://www.idleaire.com).

## ❑ **Park-and-ride facilities at the urban fringe and along major traffic corridors.**

These serve as a collection point for individuals transferring to another vehicle containing at least one other person. Park-and-ride lots generally are

designed to serve bus or rail transit, but also can be developed to facilitate carpooling, vanpooling, use of various types of shuttle services, and combinations of these high-occupancy vehicles.

## **□ Idle Reduction Policy**

South Carolina has regulations restricting commercial anti-idling. An anti-idling policy is an easy and cost-effective way to reduce pollution. By reducing the amount of time that engines idle, the amount of pollutants including: carbon dioxide, nitrogen oxide, volatile organic compounds, carbon monoxide, and particulate matter would be significantly decreased resulting in the decline of dangerous air and noise pollution. Several South Carolina jurisdictions have anti-idling policies for their fleets. Local businesses or other facilities, such as schools can consider implementing voluntary anti-idling policies on site.

# APPENDIX A

EnviroFlash is a system that sends media about your daily air quality forecast. The message is the same air quality information that the local radio or television stations provide, plus suggested safety measures when levels are unhealthy. This service is provided by SC DHEC and the US EPA.

## A.1 Feature Story

### Using Technology to Battle the Elements

When [Local Patient Name/Advocate Name] opens his/her inbox, he/she knows how to plan the following day. It isn't through an electronic calendar, but through an air quality e-mail alert system called EnviroFlash.

(Insert quote)

[Name] has asthma/respiratory disease and for him/her, knowing the quality of air is not like knowing if it will rain. Instead, it is a matter of serious health concern. That's why this online tool – available from [STATE/LOCAL PARTNER AGENCY] and the U.S. Environmental Protection Agency (EPA) is a great source for up-to-date information. And, it's free.

EnviroFlash ([www.enviroflash.info](http://www.enviroflash.info)) is an e-mail alert system that delivers air quality information straight to your inbox. Subscribers sign up, fill out some basic information and receive daily alerts about their local Air Quality Index (AQI) forecasts. They will also receive alerts when special events such as unhealthy ozone or particle pollution occur.

[Insert points from state/local agency on how EnviroFlash works.]

[Insert points from local health/advocacy organization.]

(Insert quote)

EnviroFlash helps the community stay better informed about air quality – and it helps individuals prepare for days when air quality is expected to be unhealthy. Users receive daily alerts for the next day, which are color-coded to correspond to health levels.

The system also provides useful tips on how to be proactive during unhealthy air days. Changing the time of day for activities or limiting exertion or duration are a few ways to help you and your family stay healthy.

## A.2 Letter to the Editor – Local Agency

DATE

To the Editor:

(Recent air quality event)/the approach of hot weather calls attention to the fact that we should all be well-informed about the air quality in our community. Air pollution, such as particle pollution and ozone, can harm everyone, especially those with respiratory and heart illnesses, older adults, young children and people who are active outdoors.

There is a valuable tool available that can help keep our community better informed about air quality. EnviroFlash ([www.enviroflash.info](http://www.enviroflash.info)) is an e-mail alert system that delivers critical air quality information straight to your inbox. Subscribers enter their e-mail address and ZIP code, and select the type of message they want to receive. They can receive alerts about the local Air Quality Index (AQI) each day or only when the air quality is expected to be unhealthy.

Many of us feel overwhelmed by our inbox and might be hesitant to sign up for one more thing. But EnviroFlash delivers vital health information in time for you to prepare for what's ahead. To help you stay better informed about the air around you, please visit EnviroFlash at [www.enviroflash.info](http://www.enviroflash.info) and sign up today.

*Local Agency Partner*

## A.3 News Release – Local Event

### Fires in the East Raise Concerns about Air Quality [OR SIMILAR EVENT]

*EnviroFlash Provides Warnings and Information to Concerned Citizens*

This week's [fire/smoke/heat/elevated ozone levels] is cause for concern for residents of [PLACE]. According to [LOCAL AGENCY NAME], tomorrow will be a code [COLOR (e.g. red)] day, meaning [HEALTH

RECOMMENDATIONS/TIPS people with heart or lung diseases, children and older adults should take extra precautions]. To know when to take precautions and limit exposure, [AGENCY NAME] recommends area residents stay informed of air quality conditions by signing up to receive EnviroFlash alerts.

EnviroFlash ([www.enviroflash.info](http://www.enviroflash.info)) is an e-mail alert system that delivers air quality information straight to your inbox. Once subscribers sign up and fill in their basic information, they will receive daily alerts about the local Air Quality Index (AQI), as well as alerts related to certain times that you should be more cautious, such as [CURRENT EVENT].

(Insert quote)

[TAILOR TO SPECIFIC EVENT] Awareness of air quality is important if you have lung disease, like asthma, if you have heart disease, if you are an older adult or a child, or if you are active outdoors. Elevated levels of [TAILOR TO SPECIFIC EVENT] pollutants, like ozone and particle pollution, can have serious short- and long-term impacts on your health.

[TAILOR TO SPECIFIC EVENT] Ozone can irritate your respiratory system and cause a burning sensation in your throat and airways. It can reduce lung function, cause chest tightness, wheezing or shortness of breath, and can aggravate asthma and trigger asthma attacks. Particle pollution can irritate the eyes, nose and throat and cause coughing, chest tightness and shortness of breath. It can also pose risks for people with heart disease.

**[Modify/customize the following quote]** “We expect conditions to improve soon, but the best thing for individuals to do is stay informed and be smart about participating in outdoor activities,” said [ORGANIZATION SPOKESMAN]. “Stay aware of air quality conditions and be willing to cut short or tone-down activity if necessary. Signing up for EnviroFlash ([www.enviroflash.info](http://www.enviroflash.info)) should be a first step.”

###

## A.4 Op-ed

Title: EnviroFlash: Air Quality Info Straight to Your Inbox

As you leave your house today, ask yourself the question, “Do I know what color my air is today?” The air we breathe

is a mixture of gases and microscopic particles. Some of these gases and particles are air pollutants, and they are unhealthy to breathe. Most of the time pollution levels do not impact our daily lives. At other times, certain pollutants reach unhealthy levels and put many at risk. That’s why EnviroFlash is so important.

EnviroFlash ([www.enviroflash.info](http://www.enviroflash.info)) is an e-mail alert system that delivers air quality information straight to your inbox. Subscribers sign up, fill in their e-mail address and ZIP code and receive color-coded alerts about their local air quality. They can select to receive messages on a daily basis or only when the Air Quality Index reaches unhealthy levels.

Knowing your air quality level is important if you have respiratory or heart issues, if you are an older adult, if you have children or if you are active outdoors. Elevated levels of pollutants, like ozone and particle pollution, can have serious short- and long-term impact on your health.

Ozone can irritate your respiratory system and throat or cause a burning sensation in your airways. It can cause chest tightness, wheezing or shortness of breath, and can aggravate asthma and trigger asthma attacks. Particle pollution – especially fine particles – contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Numerous scientific studies have linked particle pollution exposure to a variety of problems, including decreased lung function, aggravated asthma, development of chronic bronchitis, irregular heartbeat, nonfatal heart attacks and premature death in people with heart or lung disease.

EnviroFlash helps communities stay better informed about air quality and helps individuals prepare for days when the air quality is unhealthy. After signing up for the system, users will receive alerts color-coded to corresponding health levels. Green days, for example, are healthy days with good air quality. Red days are unhealthy and everyone - especially those with certain health issues - should modify their outdoor activities and take it easy.

The system also provides useful information on steps to take to reduce your exposure to unhealthy air days. Changing the time of day for activities, limiting exertion or duration or moving your exercise indoors, are a few ways we can better cope with unhealthy air quality.

We can all be more proactive in trying to care for our air. We can drive less and carpool more, conserve electricity and avoid idling in our cars. We can also be more aware

of the air and its impact on us individually by being informed and flexible. Sign up for EnviroFlash at [www.enviroflash.info](http://www.enviroflash.info) to get critical air quality information straight to your inbox. And be willing to change your lifestyle when the air around you could be harmful.

## A.5

### Outreach Letter – Local Weather/Health Reporter

Dear [NAME]:

Because your work touches so many in our community, we wanted to make you aware of a valuable tool available to people concerned about air quality. EnviroFlash is a free e-mail alert system that delivers important air quality information straight to your inbox.

Air quality affects everyone, but it's especially important for people with respiratory illnesses like asthma or COPD (chronic obstructive pulmonary disease), those with heart conditions, older adults and families with young children. EnviroFlash not only gives subscribers daily information about air quality in their communities, but it also lets them know how to change their outdoor activities to protect their health.

EnviroFlash messages are based on the Air Quality Index (AQI), the color-coded tool for communicating daily air quality. It's easy to sign up. Just go to [www.enviroflash.info](http://www.enviroflash.info), fill in your e-mail address and ZIP code, and select the type of message you want to receive.

As a media personality, you have a unique opportunity to be an advocate for public health. We hope you will let the community know about this important tool and encourage your [readers/viewers] to sign up.

If you have questions about EnviroFlash, please don't hesitate to contact us. Thank you for helping educate our community on the importance of staying informed about air quality.

Sincerely,  
NAME

## A.6

### Scripts for Public Service Announcements

#### Concept 1

**:30 seconds**

The average person breathes more than 3,000 gallons of air each day. The quality of the air affects how we live and breathe, especially if you are a child, older adult or anyone with a heart or lung disease, like asthma. Sign up for EnviroFlash alerts to get daily updates on air quality at [www.enviroflash.info](http://www.enviroflash.info). This will help you know when and how to plan to protect yourself on unhealthy days. Again, that's [www.enviroflash.info](http://www.enviroflash.info). EnviroFlash is a free service from the U.S. Environmental Protection Agency and [insert your state or local agency].

#### Concept 2

**:30 seconds**

Child's voice: I always want to play outside. But Mom says I need to know when the air outside is bad. Bad air quality can hurt me - and it can hurt other kids, older people like grandpa and people with heart or breathing problems. Mom gets daily air quality e-mail alerts from EnviroFlash. Everyone can sign up for these alerts at [www.enviroflash.info](http://www.enviroflash.info).

Adult voice: EnviroFlash is a free service from the U.S. Environmental Protection Agency and [insert your state or local agency].

#### Concept 3

**:15 seconds**

Older-sounding person taking a breath.

Air pollution can seriously affect your health - especially the health of older adults, children and people with a heart or lung disease, like asthma. Breathe easier. Sign up for the daily air quality e-mail alerts through EnviroFlash at [www.enviroflash.info](http://www.enviroflash.info). EnviroFlash is a free service from the U.S. Environmental Protection Agency and [insert your state or local agency].



# APPENDIX B

This section describes alternative work schedules, which can reduce peak-period commute travel and help accommodate ridesharing and transit use. These include alternative work schedules, telecommuting, and ridesharing.

## B.1 Sample Alternative Work Schedule Policy

This document provides a guideline and then follows a set of policy and procedure statements that can be applied to all four types of alternative work schedule programs. This document was adopted from Georgia Clean Air Campaign.

### **Operating Guidelines:**

The department may cancel the program at any time and revert to the conventional 5-day 40-hours schedule.

- Those who abuse the policy will be removed from the program and scheduled to work a conventional 8 a.m. to 5 p.m. schedule. After 30 days, the employee may be reinstated to the alternative work schedule program pending supervisor approval.
- It is the responsibility of each supervisor to assure that policy and operating guidelines are understood and are being met within the work unit. Supervisors are also responsible to see that exceptions to the normal work week are recorded as they occur.
- The employer will provide a point-of-contact to department management, its supervisors, and its employees. The point-of-contact will be able to answer any questions an employee may have concerning the company's Alternative Work Schedule Program.
- Supervisors, in cooperation with employees in their work unit, define operating requirements to assure achievements of the unit's functional objectives.
- Supervisors must identify critical functions and tasks and associated coverage requirements or schedules for completion.
- Employees must assume responsibility for the required coverage and plan and organize their time to meet the requirements of the guidelines.
- Employees must participate in the resolution of conflicts between job and personal time requirements.
- Any work unit that cannot reach an agreement for scheduling coverage will be required to work 8 a.m. to 5 p.m. until an adequate schedule is determined by unit employees and approved by the supervisor.
- Exceptions to the normal workday or week will be cleared with the supervisors as events occur. Leave, compensation time or overtime, will be accompanied by the normal request authorization and request forms.
- Time reports will be processed in accordance with present procedures.
- Eligibility of the program is determined by department/management.
- Every employee working within the selected departments in the alternative work schedule program is eligible to participate.
- Although every employee is eligible and encouraged to participate in the program, it is understood that, because of operational needs of the department, this may not be possible.
- Department management has the right to determine which employees will participate in the program and to make changes to the schedule as required.
- Preference in selecting an alternative work schedule day off or flextime starting and ending time will be given to employees with ridesharing arrangements.

### ***Flextime***

#### **Definition of Terms**

- Flextime – designated hours during the workday when employees' presence at the worksite is left up to their own discretion, provided that job and total time requirements are met.
- Flextime gives employees the option of changing starting and ending times on a periodic, openseason basis as determined by management.
- A flextime program involves employees as well as supervisors in a dynamic process of time planning and organization.

## **Operating Guidelines**

- Those full-time employees choosing to participate in the flextime program will work 5 days a week 8 hours per day. No carry over of hours from day to day is permitted.
- A rescheduled starting and stopping time will be chosen by each employee from within the established time bands. The employee adheres to the chosen schedule until the periodic opportunity to change arises. No day to day flexibility in arrival and departure time is permitted.
  1. For the first two weeks on flextime, an employee may adjust their chosen schedule at will, with at least one workday advance notice to the supervisor.
  2. After the two week trial period, an employee's work hour schedule will remain unchanged for a period of six months, unless specific permission is granted by the supervisor.
- A minimum lunch break of 30 minutes must be taken. An employee who starts work at 7 a.m. must take a one-hour lunch, since departure is not permitted before 4 p.m.
- The policy does not change what has been in effect in the past. Employees are expected to arrive on time and be ready to work. The difference is that, with flextime, employees may determine their own work hours within the framework established by management.

## **Alternative Work Schedule**

### **Definition of Terms**

- An alternative work schedule is defined as a workweek schedule which permits employees to finish their usual number of working hours in fewer days per pay period.
- Under the 4/40 schedule, employees work their usual number of weekly hours in 4 days and are off on the 5th day.
- Employees on a 9/80 schedule work their usual number of hours in a two-week pay period in 9 days rather than 10.

### **Operation Guidelines**

- Operational Needs of the Organization – due to the nature of the operation, certain core periods must have coverage. Management reserves the right to prescribe schedules for certain operations in order to assure this coverage.

- Employee Circumstances –we recognize that not everyone can participate in the Alternative Work Schedule Program. Employees may have child or other family member care problems for which alternative arrangements might not be easily made. Medical problems, school commitments, or other unforeseen hardships which create the need for approved participation in the program being made on a per case basis.
- Rideshare – the needs of the vanpool or carpool will be another consideration in the selections of days off. Additionally, carpoolers will be given workday preference over non-carpoolers.
- Employee Preference – employees will be asked their preferences in selecting days off. Whenever possible, these will be granted.
- All staff will be available one day per week for meetings, which currently provide the foundation for policy briefing and standardization of activities.
- Overtime, if required, will normally be scheduled on employee's day off.
- Holidays represent 8 hours of leave with pay. Any employee working a 9 or 10-hour day will need to use vacation time to make up the difference. If the holiday falls on an employee's regular 4/40 or 9/80 day off, the eight hours will be credited as additional vacation time.
- Time Reporting for Holiday Pay – if a holiday falls within a biweekly pay period, then working employees shall be given leave with pay for each holiday occurring within the biweekly pay period. Leave is calculated at the rate of one-tenth (1/10) of an hour for each hour compensated during the biweekly work period in which the holiday or holidays occur, not to exceed eight (8) hours of leave with pay for each holiday.
- For example, employees on a 4/40 work schedule will charge 8 hours holiday and 2 hours vacation for each holiday that occurs on a 10-hour workday. For employees on a 9/80 work schedule, when a holiday falls on a 9-hour day, 8 holiday hours and 1 vacation hour shall be charged.
- Any employee whose regularly scheduled day off falls on a paid assigned holiday shall be credited with vacation leave hours equivalent to one-tenth of an hour for each hour compensated during the biweekly work period not to exceed eight (8) hours of vacation leave for each holiday. For example, when a holiday falls on the day off of employees on a 4/40 work schedule or on a 9/80 work schedule, they will receive 8 hours credited to their vacation bank.

- Accounting for Vacation Days – for each full vacation day taken during an alternative work schedule, employees will be charged 10 hours on the 4/40 or approximately 9 hours on the 9/80 work schedule.
- Work on Holidays – regular full-time and part-time employees who are required to work on a paid assigned holiday, and are eligible for overtime, shall be paid one and one-half times their regular rate of pay for hours actually worked, in addition to receiving straight time payment for said holiday. For example, employees on a 4/40 work schedule who work 10 hours on a holiday will earn 10 hours of pay at time and a half plus 8 hours of straight time. Employees on a 9/80 work schedule who work 9 hours will earn 9 hours at time and a half plus 8 hours straight time.

**Alternative Work Schedule Agreement**

**Purpose** – (Employer’s Name) has adopted an Alternative Work Schedule Program. One of the key components of this program will be to reduce the number of trips to facilities by its employees through the implementation of alternative work schedules.

**Definitions** – Alternative work schedules are defined as a work week schedule which permits employees to finish their usual number of working hours in fewer days per pay period, either by working the normal weekly hours in four days (4/40), or the normal biweekly hours in nine days (9/80).

Flexitime gives the employees the option of changing their starting and ending time on a periodic, open-season basis, as determined by management.

*(Variations in the selected program(s) will be determined by management.)*

**Conditions** – When an alternative work schedule arrangement is implemented, the following conditions will apply:

- The pilot program will be from DD/MM/YY to DD/MM/YY.
- The employer may cancel the program at any time and revert back to the 5 day 40-hour schedule.
- Eligibility to the pilot program is determined by management.

Overtime, if required, will normally be scheduled on employee’s day off.

- On an alternative work schedule, use of a full vacation day will be charged 10 hours on the 4/40 and 9 hours on the 9/80.
- Preference in selecting an alternative work schedule day off or flexitime starting and ending time will be given to employees with ridesharing arrangements, day care situations, or health concerns.
- Holidays represent 8 hours of leave with pay. Any employee working a 9 or 10-hour day will need to use vacation time to make up the difference. If the holiday falls on an employee’s regular 4/40 or 9/80 day off, the eight hours will be credited as additional vacation time.
- Employees may be required to complete surveys at the 3-month and 6-month points in the pilot to evaluate the effects of the program.

I, (please print) \_\_\_\_\_ have received, read, and understand the above pilot program plan and agree to participate in (please circle):

- Flexitime
- Alternative work schedule 4/40
- Alternative work schedule 9/80
- Alternative work schedule 3/12

_____ Employee Signature	_____ Date
_____ Supervisor Signature	_____ Date
_____ Department Manager Signature	_____ Date

**B.2  
Sample Telecommute Agreement**

**(Employer’s Name)  
Telecommute Agreement**

This Agreement, effective MM/DD/YYYY, is between Employee Name an employee (referred to as “Employee”) and Employer Name (referred to as “Employer”).

The parties, intending to be legally bound, agree as follows:

**Scope of Agreement:**

Employee agrees to perform services for Employer as “telecommuter.” Employee agrees that telecommuting is

voluntary and may be terminated at any time, by either the Employee or Employer, with or without cause.

### **Term of Agreement**

This Agreement shall become effective as of the date written above, and shall remain in full force and effect, as long as Employee telecommutes, unless the agreement is terminated.

### **Termination of Agreement**

Employee's participation as a telecommuter is entirely voluntary. Telecommuting is available only to eligible employees, at Employer's sole discretion. Telecommuting is not intended to be available to the entire organization. As such, no employee is entitled to, or guaranteed the opportunity to, telecommute. Either party may terminate Employee's participation in the program, with or without cause, upon reasonable notice, in writing, to the other party. Employer will not be held responsible for costs, damages or losses resulting from cessation of participation in the telecommuting program. This Agreement is not a contract of employment and may not be construed as such.

### **Salary, Job Responsibilities, Benefits**

Salary, job responsibilities, and benefits will not change because of involvement in the program, except as they might have changed had Employee stayed in the office full-time, e.g., regular salary reviews will occur as scheduled, and Employee will be entitled to any company-wide benefits changes that may be implemented. Employee agrees to comply with all existing job requirements as now are in effect in the office.

### **Work hours, Overtime, Vacation**

Work hours are not expected to change during the program. In the event that overtime is anticipated, this must be discussed and approved in advance with the manager, just as any overtime scheduling would normally have to be approved.

### **Work Schedule**

The daily work schedule for the days when working at home is subject to negotiation with and approval by Employee's manager. The manager may require that Employee work certain "core hours" and be accessible by telephone during those hours.

### **Equipment**

Employer may provide the necessary computer, software, and other equipment needed for telecommuting. All of these items remain the property of the (Employer's Name) and must be returned to the company upon request. The computer, software, and any other equipment or

supplies provided by Employer are provided for use on organizational assignments. Other household members or anyone else should not use the equipment and software. Employer-owned software may not be duplicated except as formally authorized. Employer will be responsible for insurance and maintenance of all company-provided materials.

Employee may use personal equipment for telecommuting purposes. In such cases, Employee will be responsible for the maintenance and insurance required for the equipment.

### **Workspace**

Employee agrees to designate a workspace within Employee's remote work location for placement and installation of equipment to be used while telecommuting. Employee agrees to maintain this workspace in a safe condition, free from hazards and other dangers to Employee and equipment. Employer must approve the site chosen as Employee's remote workspace. Employee is expected to submit three photos of the home workspace to management prior to implementation.

Any employer-owned or provided materials taken home should be kept in the designated work area at home and not be made accessible to others.

Employee agrees that Employer can make on-site visits (with 48 hours advance notice) to the remote work location for the purpose of determining that the site is safe and free from hazards, and to maintain, repair, inspect, or retrieve employer-owned equipment, software, data or supplies. In the event that legal action is required to regain possession of employer-owned equipment, software, or supplies, Employee agrees to pay all costs incurred by Employer, including attorney's fees, should Employer prevail.

### **Office Supplies**

Office supplies will be provided by Employer as needed. Employee's out-of-pocket expenses for other supplies will not be reimbursed unless by prior approval of Employee's manager.

### **Dependent Care**

Telecommuting is not a substitute for dependent care. Telecommuters will not be available during company core hours to provide dependent care.

### **Worker's Compensation**

Employer will be responsible for any work-related injuries under our state's Workers Compensation laws, but this liability is limited to injuries resulting directly from work and only if the injury occurs in the designated work

area. Any claims will be handled according to the normal procedure for Worker’s Compensation claims.

**Liability for Injuries**

Employee understands that the Employee remains liable for injuries to third persons and/or members of Employee’s family on Employee’s premises. Employee agrees to defend, indemnify and hold harmless Employer, its affiliates, employees, contractors and agents, from and against any and all claims, demands or liability (including any related losses, costs, expenses, and attorney fees) resulting from, or arising in connection with, any injury to persons (including death) or damage to property caused, directly or indirectly, by the services provided herein by Employee or by Employee’s willful misconduct, negligent acts or omissions in the performance of the Employee’s duties and obligations under this Agreement, except where such claims, demands, or liability arise solely from the gross negligence or willful misconduct of the Employer.

**Income Tax**

It will be the Employee’s responsibility to determine any income tax implications of maintaining a home office area. Employer will not provide tax guidance nor will Employer assume any additional tax liabilities. Employees are encouraged to consult with a qualified tax professional to discuss income tax implications.

**Evaluation**

Employee agrees to participate in all studies, inquiries, reports and analyses relating to this program.

Employee remains obligated to comply with all of Employer’s rules, practices, instructions and this Agreement. Employee understands that violation of any of the above may result in preclusion from teleworking.

I have read and understand this agreement and accept its conditions.

_____	_____
Employee	Date
_____	
Supervisor	Date

**B.3 PROJECT TOOL: Carpooling**

Carpooling involves two or more people sharing a ride to a destination point rather than each person driving separate vehicles. Sharing a ride with someone that you work with is one of the easiest ways to alternatively commute to work.

Employers that choose to support this action can offer preferred parking – either the most convenient spaces or discounted parking rates – and offering an employer-sponsored Guaranteed Ride Home program to employees who carpool.

**Carpool Benefits**

- Reducing the number of vehicles on the road reduces overall vehicle emissions, thereby improving air quality.
- Gasoline consumption drops. Billions of gallons of fuel are wasted as vehicles idle in traffic congestion each year. (Source: Texas Transportation Institute)
- Costs for maintenance for your vehicle can decrease when you utilize carpool.
- Stress Reduction. Provides time for reading, working or relaxing that might otherwise be spent idling in traffic.

**Get Started**

- For an employer or organization interested in establishing a carpool program, consider the potential for use. Are work schedules predictable? Are there long-distance commuters? Is there a parking shortage? These factors can enhance the appeal of carpooling.
- Provide a forum for employees to find carpool matches. This can be as simple as a bulletin board for posting ride requests.
- Consider establishing an incentive program to reward carpoolers. This can consist of providing preferred parking, recognition, or prize drawings for participants.
- A guaranteed or emergency ride home program is a very important part of supporting a carpool program. It can increase participation by reassuring carpoolers that they will have a way home if carpool plans are disrupted by unexpected overtime or illness.

*For more information regarding alternative commute options, please visit our “You Hold the Key, SC!” webpage: [www.scdhec.gov/youholdthekeysc](http://www.scdhec.gov/youholdthekeysc)*



Our goal in developing the Resource Guide is to make it most useful for our users. We want to know what your experience with the guide has been and how we can make it better. Your comments provide the crucial information that helps us improve the guide for the future. Thank you in advance for your time and thought!

1. What agency/entity do you work with?

- State/Local government
 Business
 School
 Other: \_\_\_\_\_

2. How effectively did the guide fulfill your goals and intentions?

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3. Are there any additional features you would like to see added to the guide?

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4. If the guide is updated, what kind of new or additional information would you like to see included?

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5. What comments or feedback do you have about the guide?

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6. How would you improve or build on the guide for the future?

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County: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

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Email: \_\_\_\_\_

Please fill out and submit survey form. The contact information will be used to notify you about updates to the Resource Guide.

Mail to: SCDHEC-Bureau of Air Quality 2600 Bull Street Columbia, SC 29201. Attn: Channell Webster

# NOTES





South Carolina Department of Health  
and Environmental Control

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