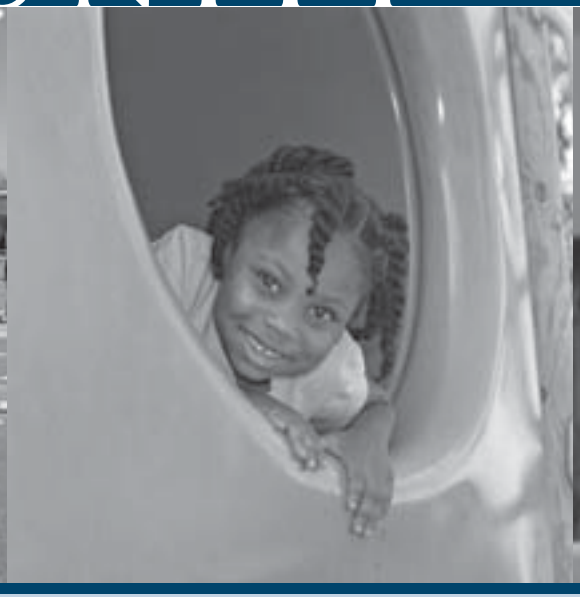
CHAPTER 1
COMMUNITY



Increase Local Capacity to Promote and Protect Healthy Communities

What is a Healthy Community? • State Cardiovascular Plan
Obesity • Diabetes Initiative
York County Air • Public Health Preparedness

Ongoing Challenges, New Approaches

Oral Health Services • SC Turning Point • Asthma
Public Participation • Influenza Pandemic Plan
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Assist Communities in Planning for and Responsibly Managing Growth

Growth Issues • County Air Quality • Hydroelectric Dam Impact
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Realizing the vision of healthy people living in healthy communities is possible only if the community, in its full cultural, social and economic diversity, is an authentic partner in changing conditions for health. Public health has improved community health over the years through measures such as controlling epidemic diseases, immunizing vulnerable populations and overseeing safe food and water practices. These are still important public health functions, but are now joined by an awareness of the environment's impact on individual health. Clean drinking water, air that is safe to breathe, land that is free of contaminants – these are all necessary to good health and have become particular challenges to protect and assure as our state grows. A new role of a public health agency is to help communities recognize how interconnected their total environment is to their health and to empower and assist communities in making decisions that are sustainable as they grow.

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GOAL
Increase Local Capacity to Promote and Protect Healthy Communities

What is a Healthy Community?

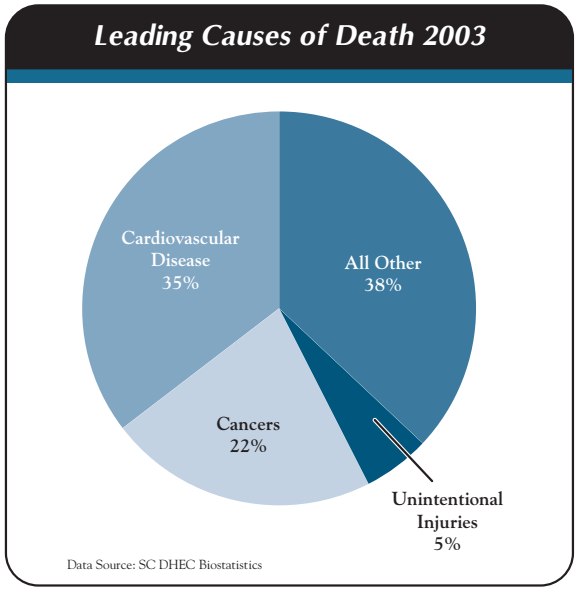
A "community" is a group of people with a common interest. Members of communities typically live or work in the same location or environment and so are influenced by the same social, economic and physical risk factors. A healthy community embraces the belief that health is more than merely an absence of disease; it includes those elements that enable people to maintain a high quality of life and productivity. Individual behaviors, physical environments and social environments play major roles in the health of individuals and communities.

To achieve healthier communities, DHEC forges community collaborations and **partnerships** built on the conviction that, while retaining uniqueness and autonomy, organizations, agencies and community members with shared values and goals can accomplish more by working together than they can on their own. A variety of vehicles are used for community collaborations, including coalitions, partnerships, interagency agreements, community advisory boards and task forces. The ingredients for a successful collaboration include shared vision and goals; skilled leadership; process orientation; cultural diversity; member-driven agenda; multisector involvement; and accountability.

Partnership Launches State Cardiovascular Plan

To address the leading cause of death and disability in South Carolina, DHEC staff and its partners in 2004 continued developing and sustaining key partnerships and identifying effective strategies and activities to reduce cardiovascular disease in the state. Statewide partners, including the American Heart Association, launched the Cardiovascular Health State Plan in September 2003 to address the disease across the spectrum, from promoting healthy lifestyle choices to evidence-based best practices for health care practitioners. Anyone can use the plan to find desired outcomes and action steps to make their community a healthier place to live.

http://www.scdhec.gov/cvh



Some 2004 activities include:

- Emergency Management of Acute Stroke Training for Emergency Management Services: The S.C. Emergency Medical Service (EMS) Network provided Miami Emergency Neurological Deficit training during the annual S.C. EMS Symposium and coordinates additional stroke trainings out of the network's four regional offices.

- Minigrants to Federally Qualified Health Centers: Six Federally Qualified Health Centers received funds to develop or enhance clinical patient information systems to provide standardized care to patients with cardiovascular disease.

- Grants to DHEC health districts: Four districts conducted community-level projects to address heart disease and stroke prevention, treatment and awareness.

- Medical University of South Carolina (MUSC) Hypertension Initiative/American Society of Hypertension Specialists: The alliance provided training to health care providers on the most recent guidelines and practices for identifying and treating patients with high blood pressure and cholesterol. Patient data is collected and analyzed to identify opportunities for quality improvement in clinical outcomes.

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- Work Site Wellness Initiative: A contract with the state Office of Research and Statistics will allow medical claims data to be linked to behavioral interventions within targeted work site wellness programs in the Columbia area.

- Media campaign: A statewide multimedia (TV, radio, print) effort to communicate messages about the importance of recognizing and responding to signs and symptoms of stroke was developed.

For information on racial disparities in cardiovascular health, see page 24. For information on cardiovascular health in the senior population, see page 40.

www.scdhec.gov/cvh

Dory Masters: masterdm@dhec.sc.gov • (803) 545-4498

Work Launched on State Overweight, Obesity Problem

The rates of **overweight** and **obesity** in South Carolina are among the highest in the nation. Medical expenditures related to obesity in South Carolina topped $1 billion in 2003. Obesity is fast approaching smoking as the leading cause of preventable deaths in the United States, according to the Centers for Disease Control and Prevention (CDC).

To address this serious public health problem, the S.C. Coalition for Obesity Prevention Efforts began meeting in 2004. Four main work groups (Business and Industry, Community and Faith, Health Care Systems, and Schools) will develop strategies toward obesity reduction. The work groups have drafted objectives and activities to support the coalition's main goals. The plan is expected to be complete in June 2005.

DHEC also develops, coordinates and implements science-based nutrition and physical activity approaches in partnership with public and private leaders in obesity and chronic disease prevention. Strategies, particularly focusing on policy and environmental change, address evidence-based behaviors for obesity prevention. Strategies target schools, communities, worksites, faith-based organizations and health care settings. For information on racial disparities in obesity, see page 30.

Erika Kirby: kirbye@dhec.sc.gov • (803) 545-4476

Diabetes Initiative Grows

The S.C. Diabetes Prevention and Control Program (DPCP) receives funding from CDC to promote awareness, prevention and management of diabetes, the sixth leading cause of death in South Carolina. The program places an emphasis on reducing health disparities among high-risk populations. The work plan is based on the CDC's National Objectives, which focus on surveillance; clinical measures (foot and eye exams, influenza and pneumonia vaccinations, and hemoglobin A1c tests); and establishing links to programs addressing risk factors for diabetes.

Key program activities in 2004 to address the disease include:

- Annual evidence-based workshop/training: S.C. DPCP, in partnership with DHEC, MUSC and the Diabetes Initiative of South Carolina, conducted and continues to conduct trainings for providers across the state based on recommended standards of care.

- Annual African-American Conference on Diabetes: This conference is held every November in observance of National Diabetes Awareness Month. The conference targets people living with diabetes, their caretakers, health care professionals and other interested community members. Average attendance the past several years has been around 1,000 participants. Each year concurrent sessions are held on foot and eye care, nutrition, physical activity, depression, medication and monitoring, diabetes and sexuality and other topics.

- Community health center technical assistance: S.C. DPCP Health Systems technical assistance is focused on seven of the nine centers that are part of the Diabetes Collaborative and are using the Chronic Disease Model. Technical assistance is provided to improve diabetes care in office-based practices in medically underserved areas of the state and to increase diabetes self-management skills in patients. Priority populations are African-Americans, the elderly and uninsured and underinsured. These health systems interventions are done in collaboration with the S.C. Primary Health Care Association.

- Local coalitions: Membership in 27 coalitions across South Carolina includes individuals, health professionals and people living with diabetes. The coalitions provide a forum for local communities to plan and implement diabetes-related activities that are locally driven and controlled, share resources, create awareness, improve communication and solicit corporate support for community projects. Nine community coalitions were funded during 2004-2005 with amounts ranging from $3,000 to $7,000.

www.scdhec.gov/diabetes

Rhonda Hill: hillrl@dhec.sc.gov • (803) 545-4469

Partnership Addresses York County Air Quality

As a result of DHEC's community partnerships, several projects took place in 2004 to improve air quality in northern South Carolina, particularly the Charlotte/Gastonia/Rock Hill area.

The **Sustainable Environment for Quality of Life** (SEQL) project is funded by a U.S. Environmental Protection Agency (EPA) grant and is led by the Centralina Council of Governments (COG) and the Catawba Regional COG with support from DHEC, the N.C. Department of Environment and Natural Resources and EPA. Government, business and community leaders are called on to address environmental issues that impact the quality of life and economic viability of the Charlotte/Gastonia/Rock Hill region. The project supports the region's efforts to develop integrated and long-term solutions that ensure economic development and a positive quality of life for its future. The SEQL bistate region includes 15 counties, is populated by 2.1 million people, and encompasses more than 100 political jurisdictions.

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Some accomplishments in the Rock Hill region follow:

- Sub-regional meetings were held and all jurisdictions of the Catawba Regional COG signed a Clean Air Policy resolution;
- Model policies, ordinances and procedures were developed to assist local government and elected officials in addressing environmental issues that confront their communities;
- A gas can exchange was held in conjunction with Household Hazardous Materials Collection Day. Old gas cans were turned in and 112 new, environmentally friendly ones were given away; and

- EPA's Design for the Environment auto refinish training was provided to auto body shops in the Rock Hill area. The program encourages best practices that reduce exposure and environmental release of toxic chemicals during spray painting and related activities.

- http://www.seql.org
- http://www.catawbacog.org
- Dianne Minasian: minasids@dhec.sc.gov • (803) 898-4467

Public Health Preparedness Continues Improvement

In 2004, DHEC continued to improve state and community responders' ability to plan for public health emergencies. This planning has improved community-based responses to natural disasters and infectious disease outbreaks as well. A real-time test of DHEC's ability to respond occurred with the flu vaccine shortage in the fall of 2004. DHEC clinics administered approximately 100,000 doses of influenza vaccine to people at high risk for influenza-related complications and distributed approximately 130,000 doses to nursing homes, hospitals, community health centers and other health care providers who found themselves without vaccine because of the shortage. For more on the shortage, see page 13.

Other 2004 activities include:

- Integrated **bioterrorism** planning efforts: DHEC has helped prepare numerous bioterrorism plans to complement the existing State Emergency Operations Plan, including Mass Casualty Response plans for the state and its respective DHEC districts; a Strategic National Stockpile plan for deployment of pharmaceuticals and medical equipment, integrating the Columbia Metropolitan Medical Response System into county and state plans; and a Crisis and Emergency Risk Communication plan to

disseminate urgent public health information through the media. Planning and implementation are under way for the CHEMPACK stockpile of chemical antidotes and the U.S. Postal Service's Biohazard Detection System to detect anthrax in the mail.

- Enhanced rapid disease investigation capabilities: DHEC improved its ability to conduct rapid outbreak investigations at both the state and local level through partnerships with the State Poison Control Center, state veterinarian and Clemson agencies. Full-time disease surveillance/epidemiology leaders and emergency preparedness managers have been placed in each health district, and continued development of the Carolina's Health Electronic Surveillance System will provide for a more secure exchange of disease-reporting information.

- Increased State Public Health Laboratory testing capabilities: DHEC's State Public Health Laboratory increased its bioterrorism and chemical testing capabilities to include online real-time, polymerase chain reaction tests for anthrax, plague, vaccinia and chicken pox in addition to instruments that perform rapid, time-resolved fluorometric tests for biologic agents. The lab now can detect selected chemical weapon agents in human tissue samples.

- Rapid electronic communication: All public health districts have established full-time communications through an automated notification system, which has been used several times to allow state and local public health authorities to communicate with hospitals, health care providers, and other response partners. In partnership with the State Law Enforcement Division

Trauma Care Act Passes Legislature

The Trauma Care Act, introduced by DHEC in partnership with the S.C. Hospital Association, passed unanimously in both the House and Senate in 2004. Despite passage of the act, the infrastructure for the system cannot be established until there is funding to support the system.

Twenty-two hospitals designated as trauma centers voluntarily commit enormous resources to provide specialized care for the injured. But there has been no guarantee that these hospitals would be able to continue to provide these costly resources. In South Carolina, as well as in other parts of the country, trauma centers are closing or downgrading their level of care. Four trauma centers in South Carolina have dropped out of the system or downgraded their level of care during the last several years.

Trauma centers are critical because each year accidental injuries claim the lives of nearly 2,000 South Carolinians, the majority of them children and young adults. For the past decade the state's injured citizens have benefited from a voluntary trauma system including Emergency Medical Service providers, hospitals designated as trauma centers and rehabilitation centers. This complex system ensures that injured citizens receive the necessary, timely and appropriate care that can mean the difference between life and death and in being able to resume a normal or near-normal life.

This year it is hoped that the Legislature will secure funding to support the state's trauma centers so that they can continue to provide this specialized, high level of care.

- http:/www.scdhec.gov/hr/ems
- Alonzo Smith: smithaw2@dhec.sc.gov • (803) 545-4275

and Emergency Management Division, the Health Alert System is being upgraded to provide emergency alerts to partners and the public.

- **Bioterrorism** training and educational initiatives: More than 2,000 DHEC employees have been trained on bioterrorism preparedness topics. The Academy for Public Health Preparedness graduated its first class of more than 70 participants in 2004. Many state, regional and local exercises were held, including a full-scale exercise of the Strategic National Stockpile/ Columbia Metropolitan Medical Response System in October 2004.

- Public health preparedness media campaigns: Media campaigns in 2004 continued to build on the foundation laid the previous year, when localized smallpox vaccination events increased awareness of the state's efforts to bolster public health preparedness. Public service announcements, which received extensive support and airplay from radio and TV stations statewide, helped convey the message that everyone plays a part in preparedness. Risk communication training is being provided to public health staff, hospital communicators and public officials throughout the state.

http://www.scdhec.gov/ophp

Cherry McNeely: mcneeke@dhec.sc.gov • (803) 898-3708

Ongoing Challenges, New Approaches

Preventive oral health services making a difference

Through a grant funded by the U.S. Department of Health and Human Services' Health Resources and Services Administration and the Centers for Disease Control and Prevention, DHEC completed several objectives in 2004 toward improving oral health in South Carolina. Among them were:

- Conducting five community meetings across the state in areas with the greatest oral disease burden to initiate planning for oral health improvement;
- Developing a statewide community-based public awareness oral health campaign involving the use of public service announcements and two robotic characters, Moe Lars and Flora Ida, now stationed at EdVenture Children's Museum in Columbia, to educate the public about the importance of dental sealants and caries prevention;
- Initiating a process for developing a social marketing campaign focusing on increasing public awareness of improving oral health practices among South Carolinians; and
- Establishing regional oral health forums to promote public-private partnerships to address access to dental care for children.

Water fluoridation has resulted in many public health benefits. A 2004 CDC study found that, in communities with more than 20,000 residents, every $1 invested in community water fluoridation yields $38 in savings each year from fewer cavities treated. The National Task Force on Community Prevention Services, which strongly recommends community water fluoridation, concluded that tooth decay in American children has decreased by 30 to 50 percent because of fluoridation. Nationally, water fluoridation has resulted in many public health benefits, including a 66 percent reduction in the incidence of cavities in children.

During 2004, nine community water systems received $94,000 in grant funding from DHEC's Oral Health Division to repair or replace fluoridation equipment. In addition, three South Carolina communities (Hartsville, Rock Hill and Orangeburg) were recognized with 50-year awards for their long-term contributions in fluoridating community water to prevent tooth decay.

http://www.scdhec.gov/oralhealth

S.C. Turning Point Addresses Community Public Health Needs

Six South Carolina counties are the focus of collaborations to assess and improve health through DHEC's participation in **S.C. Turning Point**, a public-private effort that supports community development and planning activities. The vision for Turning Point is to transform and strengthen South Carolina's capacity to protect and improve the public's health by merging professional expertise and community wisdom with political will. The aim is to strengthen leadership within the local public health system to better engage the community in a health assessment and planning process.

Since 1999, the state has received funding from the Robert Wood Johnson Foundation for local initiatives to assess community health through collaborations with government, the business sector and the community. Turning Point is currently working in Orangeburg, Clarendon, Aiken, Georgetown, Pickens and Florence counties. The counties were funded in two two-year phases. Each county is conducting a local public health system assessment of community health services and developing health improvement plans. Collaborations comprised of different public and private partners have been set up in each county to oversee the assessment and to develop plans. DHEC has played a key leadership role in developing and maintaining the collaborations.

"Mobilizing for Action through Planning and Partnership" is a community-engaged strategic planning tool for improving community health. It is used by the National Association of City and County Health Officials. Plans are being made to implement this process statewide. DHEC has the lead role in facilitating this community-wide systems approach to build a strong and effective local public health system.

- http://www.turningpointprogram.org
- Pam Gillam: gillamps@sc.edu • (803) 734-9122
- Joe Kyle: kyleja@dhec.sc.gov • (803) 898-0777

Influenza Pandemic Plan Completed

If a new strain of influenza A were to emerge and spread rapidly, thousands of lives could be at risk. It would be critical for the state's public health infrastructure, including state and local agencies, professional medical associations and private health care providers, to respond rapidly to stop the spread of a deadly disease. In 2004, the DHEC Pandemic Influenza Planning Committee completed a draft emergency operations plan that outlines the state's response activities in the event of an influenza pandemic affecting South Carolina. The draft plan was submitted to the S.C. Emergency Management Division (SCEMD) for review as part of the SCEMD Mass Casualty Annex of the S.C. Emergency Operations Plan. The Pandemic Influenza Plan identifies the necessary actions that should take place to control the spread of influenza during a pandemic and to make provisions for the care of those who may become ill. The plan also identifies responsibilities among state agencies, professional medical associations, and other organizations for providing support to the response to an influenza pandemic.

Flu Vaccine Shortage Hits S.C.

When the nation lost half its flu vaccine to contamination in the fall of 2004, the Centers for Disease Control and Prevention in conjunction with states grappled with the best way to use the remaining vaccine to provide the most public health protection. The decision was made that people in the highest-risk categories should receive the available vaccine, and DHEC staff began conducting statewide assessments of where the needs were greatest. By the end of October, all doses available in DHEC clinics had been used or committed to appointments for people in the CDC-defined priority groups. The remaining doses in DHEC possession were distributed to nursing homes, hospitals that had received few or no doses, community health centers, and districts with higher county populations at risk. As additional allotments became available nationwide, DHEC coordinated the notification and ordering for distribution to private providers. By mid-January, demand for the vaccine subsided. South Carolina lifted priority group restrictions in February 2005.

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Asthma Is Both A Health, Environmental Concern

In South Carolina, **asthma** is the leading cause of children's hospitalizations and the leading cause of missed school days. According to the 2003 Behavioral Risk Factor Surveillance Survey, one out of every 10 adults in South Carolina has been diagnosed with asthma at some time in their lives. Asthma is a serious chronic disease, with many triggers in the environment.

The S.C. Asthma Alliance was created in October 1999 to strengthen the link between health and environmental programs within DHEC and with public and private organizations addressing asthma. The alliance, in conjunction with the S.C. Managed Care Alliance, held Asthma and Allergy Universities in 2003 and 2004. The purpose was to provide education on how to better manage asthma and other chronic lung diseases such as chronic obstructive pulmonary disease, discuss triggers that worsen symptoms of asthma and other chronic lung diseases, and discuss medications and their uses in managing asthma and other chronic lung diseases. Triggers discussed included dust, pet dander and mold and outdoor triggers such as ground-level ozone. Ninety-two percent of participants surveyed said they learned something new about asthma and other chronic lung diseases during the 2004 event. Future events will be planned as funding allows.

Diane Minasian: minasids@dhec.sc.gov • (803) 898-4467

DHEC Encourages Public Participation

Community involvement can assist in the promotion and protection of public health and the environment. DHEC does not have regulatory authority over many serious pollution problems South Carolina faces, such as water pollution from stormwater runoff from yards and vehicle exhausts. Eliminating these kinds of pollution problems requires knowledgeable citizens committed to making small voluntary changes in their daily routines to reduce these pollutants. Involving the public in problem solving and decision-making will result in long-term solutions where every South Carolinian is engaged in quality growth that promotes public health and an excellent quality of life.

DHEC defines **public participation** as a full range of actions and processes to involve the public in our work. Through the leadership of DHEC's community liaison and the Environmental Quality Control (EQC) Public Participation Taskforce, the agency is seeking more and better ways to engage public participation. Each EQC program area (Air, Water and Land) has developed a public participation work group to assist with this effort. EQC currently is reviewing all activities to determine the appropriate levels and methods of public participation.

Nancy Whittle: whittlnc@dhec.sc.gov • (803) 896-8967

Additional resources:

National Association of City and County Health Officials
http://www.naccho.org

National Healthy Communities programs
http://www.ncl.org/cs/services/healthycommunities.html

GOAL
Assist Communities in Planning for and Responsibly Managing Growth

Growth Issues Threaten Health, Environment

Over the past 10 years, discussions concerning growth in South Carolina have been increasing. The state is home to 4 million residents, and this number is expected to increase by another million in the next 25 years. It's easy to see why people choose to live in South Carolina. In a few hours you can travel from beautiful white sand beaches, past slow-moving blackwater rivers and scenic forests, into rolling hills and up into the southern Appalachian Mountains. South Carolina ranks as the 14th most biologically diverse state in the nation, according to a 2002 Nature Conservancy report. The state also has a rich cultural history, with people representing many diverse backgrounds and ethnicities. As South Carolina grows, it is important that growth occurs in a wise and orderly manner to protect the state's rich natural resources.

Public health is closely linked to environmental protection. Clean drinking water from a river, lake or groundwater, air that is safe to breathe, and land that is free from contaminants all must be protected during growth. South Carolina citizens and leaders have made many wise choices to protect these natural resources in the past. The challenge is to continue to balance good economic development and job growth with a safe environment. With the hard choices ahead, citizens need to become involved in planning for the future. DHEC works with local governments to develop innovative and cost-effective initiatives that promote quality growth in the state.

Counties Continue Work on Air Quality

By March 2004, 45 of the state's 46 counties had submitted **Early Action Plans** (EAP) on steps they would take toward ozone reduction between now and 2007 to achieve cleaner air sooner than the federal government requires. Entering into this Early Action Compact (EAC) allowed these counties to develop their own clean air strategies and pollution control measures based on what their local needs are rather than have federal requirements forced on them. EPA's new, more stringent 8-hour ozone standard will go into effect Dec. 31, 2007.

The compact required that all counties develop and implement local emission reduction strategies that are economically feasible and that make sense for each individual county. In addition, after meeting with statewide stakeholder groups, including local and federal governments, industry, environmental groups and other interested parties, DHEC developed two regulations to assist with reductions. DHEC is revising the State Implementation

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Plan to incorporate both the local EAPs and the statewide efforts. A number of federal control measures already in place or scheduled for implementation over the next several years show that areas in South Carolina currently not meeting the new ozone standard will meet the standard by December 2007 and beyond. As a result of the commitment to the EAC process, South Carolinians will obtain the public health and environmental benefits of cleaner air sooner.

- http://www.scdhec.gov/baq
- Henry Phillips: phillimh@dhec.sc.gov • (803) 898-3260.

Hydroelectric Dam Impact Review Continues

DHEC continued in 2004 to evaluate the potential impact on water quality from hydroelectric dams as part of the Federal Energy Regulatory Commission's **dam relicensing** process, which occurs every 30 to 50 years. There are five facility-relicensing efforts currently under way that affect South Carolina rivers. These are the S.C. Electric and Gas facility on the Lower Saluda River, the Santee Cooper facilities on the Cooper and Santee rivers, the Duke Power facilities on the Catawba River, the Augusta Canal Hydroelectric Project on the Augusta Canal on the South Carolina-Georgia state boundary, and the Progress Energy and Alcoa facilities on the Yadkin-Pee Dee River that flows into South Carolina from North Carolina. DHEC must certify that these facilities will not violate state water quality standards. Staff is currently working with each facility and stakeholder group to ensure that state water quality standards and existing and classified uses of these river systems are maintained. The license renewals are rare opportunities for DHEC and the stakeholders within these watersheds to work with the dam license holders to develop and implement long-term programs that will benefit everyone within the watershed.

- Quentin Epps: eppsbq@dhec.sc.gov • (803) 898-4249

All Entities Must Manage Stormwater Runoff

DHEC regulates more than 1,000 active permitted industrial and construction sites to ensure that waters of the state are protected from stormwater pollution. Through a variety of permits over the past decade, developers, industrial sites and even municipalities have been required to develop and implement plans to identify and control sources of pollution in stormwater runoff.

South Carolina also currently regulates two Municipal Separate Storm Sewer Systems. These entities represent large metropolitan areas in the Upstate and central regions of the state. DHEC anticipates issuing approximately 70 similar permits to entities of less populated urbanized areas. These permits require municipalities to develop and implement programs to address stormwater runoff in their communities. This will be the first time many small communities have had to implement and enforce such programs.

Over the past two years, DHEC provided free technical guidance and outreach to industrial facilities on stormwater control. DHEC has an ongoing effort to inform the regulated community

of its obligations to comply with stormwater regulations.
A cooperative effort with the S.C. Forestry Commission is in place to identify stormwater problems from silviculture operations. DHEC also helps the regulated community comply with regulations by providing technical assistance to permitted industries during routine site inspections (See "What is Compliance Assistance?" pages 21 and 54). **Compliance assistance** is coordinated through DHEC's 12 EQC district offices located throughout the state, which this year will be merged into eight regional offices to improve efficiency.

- http://www.scdhec.gov/water
- Glen Trofatter: trofatge@dhec.sc.gov • (803) 898-4233

DHEC's Small Business Assistance Program
- Phyllis Copeland: copelapt@dhec.sc.gov • (803) 896-8982

Local Plans to Protect Drinking Water Sources Being Developed

To achieve better protection of drinking water sources, stakeholders—including federal, state, local governments, citizen groups and the public —must develop and implement successful local protection plans. DHEC outlines for the stakeholders a range of management options to assist in developing these plans. These can range from nonregulatory strategies, such as public education, signs or land ownership, to regulatory options at the local level, such as zoning or specific land use ordinances.

An amendment to the Safe Drinking Water Act established the national Source Water Assessment and Protection (SWAP) Program. SWAP incorporated the existing Wellhead Protection Program for groundwater sources of drinking water. DHEC conducted an assessment of each federally defined public water system in South Carolina. An assessment

609 Churches Recognize Oral Health Sunday

The 7th District of the African American Methodist Episcopal (AME) Church instituted "Oral Health Sunday" on Feb. 8, 2004. Each of the 609 AME churches received a tool kit of information on oral health tips for families, and the oral health message was incorporated into each church's worship service. Many churches sponsored oral health fairs at which dentists and dental hygienists voluntarily screened children for decay. Event organizers estimated that more than 100,000 community members and parishioners were educated about the importance of oral health. The DHEC/AME church partnership is an effort by the "More Smiling Faces in Beautiful Places" project, funded by the Robert Wood Johnson Foundation, aimed at improving oral health and access to dental care for children up to age 6 and special-needs individuals. This partnership is one of several prevention initiatives supporting the AME church Strategic Health Plan developed in partnership with DHEC. For more on preventive oral health services, see page 36.

Benefits of Trees Shown in Demonstration Project

DHEC's EQC Education and Outreach work group, in partnership with the S.C. Budget and Control Board's Horticulture Services Department, implemented a tree-planting and education program in 2004 to bring attention to the human health benefits of trees in an urban landscape. With a grant from the Urban and Community Forestry Grant Assistance program, trees were planted to replace a portion of the grass lawn at DHEC's central office on Bull Street in Columbia. Planting trees helps reduce stormwater runoff, cool the urban environment and improve air quality. By reducing the amount of grass to cut on the DHEC building's lawn, the result will be less mowing and a reduction in air pollution from the gas lawn mower exhaust. The project grant is administered through the S.C. Forestry Commission and funded by the U.S. Department of Agriculture Forest Service.

- http://www.scdhec.gov/recycle
- Diane Marlow: marlowda@dhec.sc.gov • (803) 896-4158

consists of several steps: 1) determining the area around the well or surface water intake to be protected, 2) inventorying the potential contamination sources within this protection area, 3) completing a susceptibility analysis for each system, and 4) providing those results to the public. The completed assessments were provided to the public water systems in 2003, and an abbreviated version is available on DHEC's Web site.

DHEC is encouraging teams of representatives from the public water system management, local organizations, state and local government and individual citizens to develop local management strategies that protect community drinking water sources. The team should include the public water supply manager, representatives of those government bodies that have authority over land use in the protection area, and owners/operators of businesses within the protection area. DHEC and the S.C. Rural Water Association can provide technical assistance to any public water system wanting to develop a local protection plan.

- http://www.scdhec.gov/water
- David Baize: baizedg@dhec.sc.gov • (803) 898-4272

Ongoing Challenges, New Approaches

Land Revitalization a Priority

More and more, the importance of protecting our land for future generations is becoming apparent. Cleaning up contaminated properties for reuse protects human health, preserves forests and wetlands, and spurs economic growth. DHEC strives to restore hazardous waste sites so they can be productive for their communities. EPA has begun an effort called the Land Revitalization Initiative. This initiative emphasizes that cleanup and reuse are mutually supportive goals and that property reuse should be an integral part of the way to do business, regardless of whether a property is a Superfund site, an operating waste disposal site, a petroleum facility, a former gas station or an abandoned industrial facility. Following are examples of how DHEC is incorporating land revitalization into its efforts.

Brownfields Properties Address 2,000 Acres

The Brownfields/Voluntary Cleanup Program, which became law in 2000, allows nonresponsible parties an opportunity to partner with DHEC to restore a property for either economic or greenspace purposes. Through the Voluntary Cleanup Program, DHEC has negotiated 70 nonresponsible party contracts since 1996. The nonresponsible party (Brownfield) contracts total about 2,000 acres being redeveloped in the state.

- http://www.scdhec.gov/lwm
- Gail Jeter: jetergr@dhec.sc.gov • (803) 896-4069

Petroleum Brownfields Properties Get Funding

DHEC has successfully obtained federal grants to assess contamination at **petroleum brownfield** sites across South Carolina. These sites not only have environmental concerns from leaking or potentially leaking underground fuel tanks, they also are economic blights on their communities. DHEC partners with municipal governments and other local groups to identify these sites for environmental assessments and

assistance with redevelopment plans. Furthermore, DHEC's Underground Storage Tank Program is the designated administrator of three EPA grants for petroleum brownfield redevelopment projects in the cities of Anderson and Greenville and the town of Jackson. Economic, social and aesthetic revitalization will occur in these areas as a result of the collaborative efforts.

- http://www.scdhec.gov/ust
- Kent Coleman: colemakc@dhec.sc.gov • (803) 896-6249

Superfund Offers Site Cleanup

The State Superfund Remediation Section addresses polluted hazardous waste sites across the state. **Superfund** cleanups return contaminated sites to productive use. DHEC strives to clean up these sites for productive use with stringent cleanup remedies so that the properties will be ready for reuse when a potential purchaser arrives. Therefore, DHEC, through the Voluntary Cleanup Program, allows responsible parties to enter into the program to address environmental concerns at sites they previously operated. Property may be cleaned up to industrial standards if land use controls or restrictive covenants are placed on the property for future use. Since its inception, 43 responsible parties have entered into the Voluntary Cleanup Program.

- Keith Lindler: lindlejk@dhec.sc.gov • (803) 896-4052

Newberry College a Smoke-Free Model

College years are a prime time for students to get hooked on tobacco, which has been linked to poorer academic performance and alcohol and drug abuse. About 30 percent of college students use tobacco, with more than 20 percent having started after college enrollment, according to the Tobacco Technical Assistance Consortium Web site (http://www.ttac.org).

Starting with the 2004-05 school year, all residence halls, administration buildings and athletic facilities on the Newberry College campus went smoke-free, with a restriction of no smoking within 15 feet of any building entrance. DHEC partnered with the Newberry County Tobacco Intervention and Prevention Strategy Program to draft a model campus tobacco policy, and Newberry College was chosen as a pilot site because of its size and rural location. In April 2004, school officials and student government organizations endorsed the recommended policy.

At Newberry College, the newly hired football coach has required his athletes to give up tobacco products to be on the team. Future DHEC measures include working with the college on enforcement issues and making presentations to their College Life 101 classes.

COMMUNITY

Hazardous Waste Sites Get Attention

The State Resource Conservation and Recovery Act Program addresses contaminated hazardous waste facilities operating within communities across the state. DHEC staff oversee cleanup activities that property owners are conducting to ensure that the process will be protective of human health and the environment. The program encourages facilities to clean up to the unrestricted land use standard, while acknowledging that some owners might choose a remedy that reaches only an industrial standard. In these cases land use controls and financial assurance is required to assure that the remedy can be maintained.

Special situations have allowed DHEC to work with owners to negotiate positive outcomes such as redevelopment and job creation. An example is allowing a new owner to enter into a consent agreement with DHEC instead of continuing and not being able to maintain an existing permit. Another solution is to allow new owners of property with land use controls to enter into a voluntary cleanup contract in lieu of taking full responsibility for the site. This solution is an option for current owners if the responsible, previous owner agrees to be accountable for, by paying for, the cleanup remedy selected.

John Litton: littonjt@dhec.sc.gov • (803) 896-4172

Cleanup Continues at Drycleaning Sites

Currently, 306 contaminated **drycleaning** sites are being addressed through the Drycleaning Restoration Trust Fund established in 1995. Eight sites are currently being cleaned up, and 21 sites are being investigated. The fund allows DHEC to conduct environmental assessments and clean up participating drycleaning sites. Owners of drycleaning facilities who wanted to address real or perceived environmental contamination at their facility prompted the fund's creation. The pollution was caused by the nature of the business before drycleaning solvents were regulated.

http://www.scdhec.gov/lwm

DHEC Cracks Down on Open Dumping

Over the years, illegal or **open dumping** has been a major environmental issue in South Carolina. DHEC has managed the issue through its district solid waste inspectors and solid waste enforcement section. A new criminal investigation unit launched in 2003, however, currently is working on 174 active cases and has obtained 73 convictions toward further curbing the illegal dumping problem.

DHEC's three criminal investigators make up the Office of Criminal Investigations (OCI), which focuses on the more serious open dumping cases—particularly repeated open dumping or the operation of illegal landfills.

Local litter officers continue to address one-time open dumping or littering by individuals. Referrals are made to the OCI when DHEC's solid waste inspectors discover open dumps or a complaint is received from the public. A Solid Waste Criminal Review Group determines if the referral needs further investigation. The investigators take their cases to either a circuit court judge or a local magistrate.

Since its inception, more than 240 cases have gone through the OCI. In addition, 86 arrest warrants have been issued by circuit courts. Sentences have ranged from the party having to clean up the open dump to a fine of $1 million and eight years in prison. More than 30 tickets have been issued through magistrate courts, with fines from $50 to $1,475.

DHEC believes that, as convictions increase, word will spread and open dumping will be deterred. To help with this approach, DHEC has encouraged local governments to review their solid waste plans to ensure there are adequate disposal facilities within reasonable driving distances.

- Art Braswell: braswead@dhec.sc.gov • (803) 896-4202

Additional resources:

The Nature Conservancy
- http://www.natureserve.org/Reports/stateofunions.pdf

U.S. EPA Brownfields Cleanup and Redevelopment
- http://www.epa.gov/swerosps/bf/index.html

What is Compliance Assistance?

DHEC renewed its emphasis on compliance assistance in 2004. Compliance assistance is assistance that provides clear and consistent information to help business, industry and government understand and meet their environmental obligations. DHEC partners with other assistance providers to develop and deliver compliance assistance.

Compliance assistance activities include: on-site assistance; workshops, conferences and training; telephone assistance; booklets, fact sheets and brochures; and Web-based information and special mailings. Compliance assistance is part of the agency's commitment to customer service and is provided as part of activities that include public education and outreach, permitting, compliance and enforcement. Compliance assistance is not a substitute for enforcement and is not intended to prolong a timely and appropriate return to compliance by a regulated entity, but is a proactive way to help avoid negative environmental impacts and the enforcement actions that may result. For more on compliance assistance, see pages 17 and 54.

- Claire Prince: princech@dhec.sc.gov • (803) 896-1132