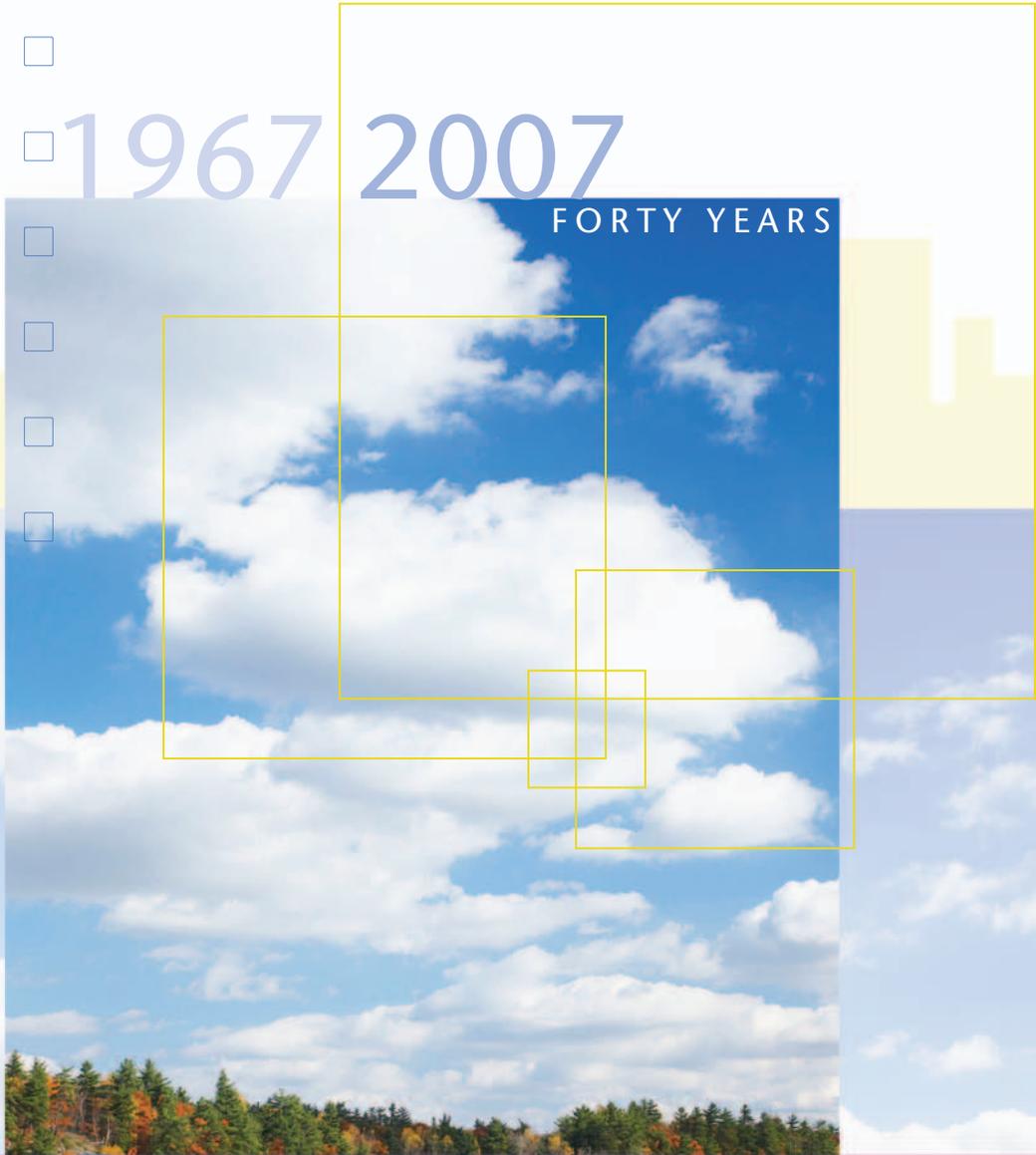




1967 2007

FORTY YEARS



NECAUM

*the clean air association  
of the northeast states*





## letter from

*When the Northeast governors created NESCAUM in 1967, there was no federal environmental protection agency and state air pollution programs were housed within departments of public health. Fine particulate matter and global climate change were not in the lexicon. Nevertheless, air pollution from power plants, industrial facilities, and automobiles was clearly seen as a public health threat that needed to be addressed.*

**I**n the decades that followed, the Northeast states — working together and with the federal government — made dramatic progress in reducing levels of airborne lead, carbon monoxide, and acid rain in the environment. By several measures, air quality improved markedly, despite steady growth in the region's economic output, electric power needs, household energy consumption, and vehicle miles traveled.

Along the way, scientific understanding of the multifaceted and often subtle impacts of air pollution on human health and the environment also advanced. New challenges emerged. We now know that pollutants like ozone and fine particle matter cause damage at levels far lower than initially thought. We have come to be concerned about whole new categories of emissions — from greenhouse gases and wood smoke, to hazardous pollutants like mercury and diesel soot. We also came to

understand that pollution transport occurs on scales that go far beyond cross-state borders. Today, NESCAUM's horizons have widened to encompass global problems like mercury accumulation and climate change. At the same time, a more sophisticated understanding of public health risks and environmental justice concerns has brought a renewed focus on protecting vulnerable populations and addressing neighborhood-level air quality problems, especially in economically disadvantaged communities that often bear the brunt of industrial and transportation-related pollution.

What began as a novel idea forty years ago has become a model for the nation's broader air quality program. If emulation is the sincerest form of flattery, NESCAUM should be proud. With the advent of the complex Clean Air Act Amendments of 1990, others too began to more clearly understand the interrelationships among regional airsheds, gasoline distribution networks, transportation

# 1967 2007 the executive director

infrastructure, electricity grids and the general economy. The benefits of regional air quality coordination became apparent and within a decade, every region of the country had created a NESCAUM-like forum. The success of this model has led to greater interest in utilizing regionally-based multi-state planning organizations as the “third leg of the stool” that constitutes our national air pollution control framework, along with the federal Environmental Protection Agency and state/local air agencies.

While others have imitated NESCAUM, we have matured in ways that continue to make us unique. To address the scientific complexities that underpin today’s air pollution issues, NESCAUM has built significant technical capabilities with a large staff of scientists, engineers, and policy experts to assist the member states in their many endeavors.

Today, the most obvious pollution sources have largely been addressed, leaving air and energy policy challenges that are more nuanced, more deeply embedded in the physical infrastructure and daily habits of modern life, and more difficult to address. Effective responses to these challenges require a holistic framework that includes broad social and economic considerations. In the late 1990s, we created NESCCAF, a public-private partnership that brings state regulators together with forward-thinking industry leaders, academics, and advocates to search for creative and cost-effective solutions that account for the many interests and issues affected by air pollution control programs.

In this report, we take the opportunity to share NESCAUM’s and NESCCAF’s ongoing efforts to help protect the health and environment of the Northeast.

Reflecting the fact that our world has both shrunk and grown over the past forty years, this report is organized according to a geographic theme that highlights our work at the neighborhood, regional, national, and international scale.

Finally, this report is intended as a testament to the fact that cutting edge pollution control programs and public health protection in the Northeast have occurred in lockstep with economic development. Even as the region demanded and pursued clean air, its economy has grown impressively over the past four decades, challenging the myth that aggressive pollution control programs stifle economic growth. In our post-industrial society, quality of life is a key determinant of where companies decide to locate. Clean and healthy air is an important component of quality of life.

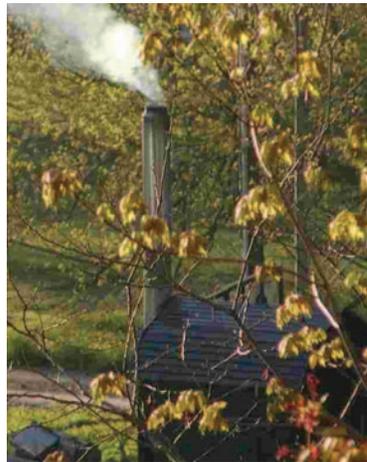
While proud of our past, NESCAUM and NESCCAF are intently focused on the future and on the great challenges that lie ahead. We know that finding and demonstrating durable solutions to the imperatives of a new era will hinge on our continued ability to change and grow. It is my hope that the reader will come away from this report with an appreciation of how the Northeast states’ leadership — aided and abetted by NESCAUM’s unique blend of technical expertise and policy-relevant advocacy — has advanced and continues to advance the cause of cleaner air and a healthier environment for generations to come.



Arthur N. Marin  
Executive Director, NESCAUM

# in the neighborhood

In rural towns across the Northeast, and even in the suburbs of some large cities, unhealthy air pollutant emissions are as likely to be coming from your neighbor's backyard as from the nearest factory or power plant. Outdoor wood boilers, which began selling in large numbers a few years ago as oil and natural gas prices began to rise, are rapidly becoming an air quality problem throughout the NESCAUM region.

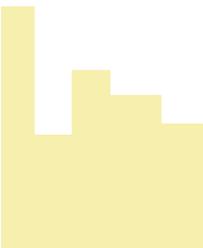


Unlike indoor wood stoves, outdoor wood boilers have never been regulated for environmental purposes and most lack even minimal pollution controls. Typically housed in a shed-like structure close to homes, these boilers—which consist of little more than a crude firebox for heating water—emit high amounts of pollution. Because these units often operate year-round to generate hot water for household use or to warm swimming pools and spas, they leave families chronically exposed—both indoors and out—to toxic pollutants, as well as high levels of soot and microscopic particles.

In March 2006, NESCAUM released an introductory assessment of emissions and health risks from outdoor wood boilers that will inform the development of new emissions monitoring tools, control options, and a model rule aimed at achieving cleaner models over the next few years. If history is a guide, state and regional efforts will eventually lead to effective federal pollution control requirements, as they did in the case of indoor wood stoves.

NESCAUM is also at work on the distinct air quality problems that arise in densely populated urban environments, where emissions from a large volume of automobile traffic, together with diesel particulate emissions from buses, heavy trucks, construction equipment, industrial facilities, and on-site power generators constitute the chief health threat. NESCAUM's ability to document high levels of particulate matter and diesel exhaust in certain micro-environments—from the passenger compartments of school buses and commuter trains, to the platforms and waiting rooms of train and bus stations—has drawn attention to the existence of microenvironmental pollution “hot-spots” at a time when a growing body of scientific evidence points to the potential for cumulative health effects from even relatively short exposures to elevated concentrations of common urban pollutants.

Broader measures of ambient air quality and national or regional emission control programs are often insufficient to address these neighborhood-level health risks. Nor have they always provided adequate protection for inner-city residents, who are far more likely than the





general population to suffer from asthma and other respiratory ailments that make them especially vulnerable to air pollution. Since 1999, NESCCAF's Clean Air Communities (CAC) initiative has implemented practical, community-based clean air and energy efficiency demonstration projects in the New York City area that serve as a model for addressing environmental justice concerns. Launched in partnership with the Natural Resources Defense Council and the New York State Department of Environmental Conservation, with initial funding provided by Consolidated Edison and the New York Power Authority, CAC has worked closely with community groups and leaders to develop projects tailored to the needs and opportunities of specific areas and neighborhoods.

Two recent CAC projects have drawn special notice and exemplify this program's ability to combine air quality, sustainable technology, and environmental justice objectives. One involves the installation of a clean and highly efficient natural gas co-generation system at a multi-building Brooklyn apartment complex. By largely displacing a much older and dirtier oil system, this project reduces overall energy use by 40 percent, lowers toxic emissions, and provides a source of clean back-up power in the event of grid outages. Residents of Queens, meanwhile, have grown fond of the 46 "Big Belly" solar trash compactors that line the sidewalks of the business districts, thanks to a CAC grant. The compactors have noticeably cut down on street litter and have caught

the attention of other cities, such as Boston, for their potential to reduce the frequency of trash pick-ups, thereby providing significant cost and pollution savings. This project also demonstrates the viability of small-scale solar energy technology in an urban setting. Even more recently, CAC was awarded a federal grant and funding from the New Jersey Department of Environmental Protection to partner with local groups in Camden, New Jersey, to clean up diesel emissions in a heavily industrialized, mostly low-income neighborhood near the Port of South Jersey.

Many other aspects of NESCAUM's work bear directly or indirectly on the challenge of improving air quality at the city and neighborhood level. An ongoing research initiative to clarify the role of organic aerosols, for example, will help New York, Connecticut, and

*NESCAUM supports a variety of outreach activities to engage individuals and community organizations in the quest for clean air...*

*NESCAUM and its member states are also focusing on local health risks from “air toxics”...*

New Jersey develop plans for reducing local levels of fine particle pollution in the greater New York City metropolitan area. Efforts to demonstrate diesel retrofit control technologies and develop innovative control strategies for micro-environments like train and bus stations (such as anti-idle policies, clean-fuel buses, and improved ventilation systems) aim to provide needed public health protections. At the same time, NESCAUM supports a variety of outreach activities to engage individuals and community organizations in the quest for clean air, including public websites that provide real-time monitoring data from an inner-city neighborhood

in Boston and from several other sites in the Northeast, along with a wealth of educational and outreach materials for teachers and school children, industry, and policymakers.

NESCAUM and its member states are also focusing on local health risks from “air toxics” — a category that encompasses a wide variety of pollutants, including heavy metals (such as mercury and lead) and numerous other chemical substances (such as benzene and formaldehyde), that are usually present at relatively low concentrations in the environment, but that present unique health risks. Potential sources of toxic air emissions are as varied as they are ubiquitous, especially in urban settings, where the list can include dry cleaners, lawnmowers, and paint thinners, as well as gasoline and diesel engines. Compared to the more familiar “criteria” pollutants for which national standards have been established, relatively little is known about the presence of toxic substances in ambient air and about the scale of the public health threat they present. NESCAUM completed a detailed air toxics assessment for the state of Connecticut in 2005 and continues to be engaged in gathering and interpreting data on hazardous air pollutants. The findings of a number of NESCAUM studies on the health impacts of air pollution have been broadly disseminated through articles published in prestigious technical journals, such as *Science*.



in the region

**T**he Northeast states realized long ago that their shared geography bound them together in a common air quality destiny — after all, that’s why they formed NESCAUM.

Today the region’s economy, transportation networks, and energy systems are more interconnected than ever and states’ ability to work together remains critical to advancing broadly held air quality and energy objectives. Fortunately, NESCAUM is better equipped than ever to provide its states with the analytical tools, scientific expertise, program support, and coordination needed to ensure continued progress on a regional basis.

All of these resources have recently been in high demand as the Northeast states strive to meet an unprecedented number of new air-related regulatory obligations and analytical requirements under federal law. Going forward, NESCAUM’s central role in regional planning to address ozone, visibility, and fine particle pollution, and its ongoing work in partnership with the region’s leading academic institutions and state experts to answer key scientific questions, will create a strong foundation for establishing policy priorities in years to come. Meanwhile, the Northeast States Clean Air Academy, which NESCAUM established in 1998 to coordinate air quality management training throughout the region, will continue to help states maintain the in-house expertise needed to meet existing challenges and effectively tackle new ones.

## Northeast States Clean Air Academy



NESCAUM has also begun developing a set of new technical capabilities to support a broader regional agenda — one that includes limiting greenhouse gas emissions, reducing dependence on imported fuels, and nurturing a competitive advantage in clean, efficient high-technology businesses, along with cleaner air. Specifically, NESCAUM has embarked on an ambitious effort to link the most sophisticated existing regional-scale models of energy use and technology choices, economic activity, emissions and air quality impacts, and human health outcomes. The result will be an analytical tool of unprecedented power for exploring, in detail, the costs and benefits of different policies and trends across a 12-state region stretching from Washington D.C. to Maine.



NESCAUM's integrated modeling framework will allow decision-makers to examine the complex interactions between potential policies and a host of economic, technological, and environmental drivers.

Aspects of the integrated modeling framework are already complete and will be used in the near-term to begin evaluating opportunities for reducing emissions from home heating fuel throughout the Northeast. Another area of current policy interest is reducing emissions from electric power generators that operate primarily on peak electricity demand days. Because they run relatively infrequently, many of these units have high emissions and only minimal pollution controls. Unfortunately, they are also most likely to operate on hot summer days when air quality conditions are already poor. The issue is clearly one with environmental, economic, and energy dimensions and the Northeast states are exploring integrated solutions such as a greater reliance on energy efficiency and other demand response options to ensure grid reliability and reduce emissions on high-demand days.

Compelling regional opportunities also exist on the transportation side, where the Northeast states have already moved beyond analysis to action on several fronts. The Northeast Diesel Collaborative brings NESCAUM and its member states together with the U.S. EPA in a broad-based effort to reduce diesel emissions from a wide range of sources throughout the region. The

Collaborative's efforts encompass first-in-the-nation pilot projects, education and outreach efforts, data collection, and a variety of policy initiatives. Diesel exhaust is associated with numerous serious health effects and is a primary contributor to poor air quality throughout the Northeast, especially in urban areas. The Northeast Diesel Collaborative is advancing a variety of options for reducing these impacts, including installing retrofit control technologies on existing vehicles and equipment, electrifying truck stops and enforcing policies to reduce engine idling, and switching to cleaner fuels.

Multi-state coordination has also proved uniquely important — and successful — when it comes to reducing emissions from automobiles and fuels. Many Northeast states now require cleaner-burning “reformulated” gasoline and have innovative policies in place to promote green alternatives to conventional vehicle fuels. Meanwhile, the region's past leadership continues to pay dividends in accelerating the transition to a cleaner vehicle fleet. By adopting California's more stringent vehicle standards in the early 1990s, several Northeast states helped to create a combined market for low-emission vehicles that accounted for a significant portion of national sales — a share sufficiently large that manufacturers had little choice but to respond. Cars on the road throughout the region and the country today are cleaner as a result.





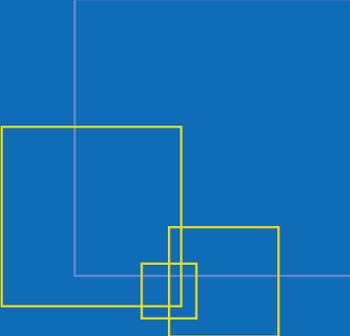
More recently, the Northeast states have again teamed up with California to leverage another sea change in the regulation of motor vehicles — this time in response to growing concerns about climate change. The transport sector is a major contributor to overall greenhouse gas emissions in a region that generally has less heavy industry and a cleaner electricity generating mix than many other parts of the country. So it was not surprising that the Northeast states saw a tremendous opportunity when California adopted first-of-a-kind regulations to reduce greenhouse gas emissions from new passenger cars, light trucks, and SUVs. To develop those regulations, California officials relied heavily on a detailed NESCCAF analysis of technology options for reducing vehicle greenhouse gas emissions. Several Northeast states have since adopted the California standards. Meanwhile, NESCAUM continues to play a central role in supporting and coordinating efforts by its member states to adopt and implement the California low-emission vehicle program.

Among NESCAUM's greatest resources are its technical committees, which address a range of program areas such as ambient monitoring, stationary and mobile sources, and climate and clean energy. These committees and workgroups are composed of expert staff from the member states and the U.S. EPA regional offices. A complete list of these committees and workgroups can be found on the back cover of this report.

In all of these arenas, NESCAUM has helped the Northeast states get things done collectively that they could not easily accomplish on their own. The results of this successful collaboration have long had an influence far beyond the region's borders. Today, NESCAUM's work finds an audience, not only among other states and regions, but in national discussions and, increasingly, in international forums as well.

*Multi-state coordination has also proved uniquely important — and successful — when it comes to reducing emissions from automobiles and fuels.*





## working at the national level

**W**ith its many years of experience, respected technical expertise, and ability to speak for a group of states with a well-deserved reputation for environmental innovation, NESCAUM is often in a position to exert leadership in broader policy discussions and planning efforts. NESCAUM's ability to marshal evidence concerning health impacts or available control technology options has proved central in any number of national-level policy debates, whether they concern the regulation of mercury emissions from coal-fired power plants or the appropriate timeframe for achieving further reductions in pollutants like sulfur dioxide and nitrogen oxides. Currently NESCAUM is working with states to strengthen the full suite of tools available under the Clean Air Act for addressing local and regional sources of air pollution and to preserve the integrity of important federal programs, like New Source Review. NESCAUM has also linked the Northeast states in an effort to advocate for a more protective, daily standard for ambient fine particulate matter.

It's hard, in fact, to think of an area where our work does not resonate beyond the region. NESCAUM has had a long and intensive involvement in efforts to regulate vehicle fuels and additives at the regional and national level. Nearly twenty years ago, the Northeast states embarked on a coordinated regional initiative—through NESCAUM—to reduce ozone-forming pollutants by requiring cleaner gasoline. This first-ever state effort served as the basis for later federal requirements. More

recently, when evidence emerged that the gasoline additive MTBE was contaminating water supplies, NESCAUM again provided national leadership by conducting research, developing policy remedies, and finding alternatives that would protect water resources without sacrificing air quality benefits. Years of support for cleaner-burning gasoline and low-sulfur diesel fuel are now yielding enormous air quality and public health benefits, not just in the Northeast but throughout the country. Going forward, NESCAUM remains closely engaged in the evolution of national fuels policy; current efforts include an assessment of potential new air quality or public health risks associated with the widespread substitution of ethanol for MTBE in reformulated gasoline.

NESCAUM and its state members have shown equally effective leadership in addressing pollution from stationary sources. NESCAUM and its Mid-Atlantic region counterpart, MARAMA, assisted member states in developing a regional trading program for ozone-forming emissions from power plants in the Northeast that predated a similar program later adopted by the federal government for much of the eastern United States. To promote the broader application of pollution controls outside the Northeast, NESCAUM gathered detailed technical analyses to document the impact of pollutant emissions outside the region—with a focus on coal-fired power plants—that affected air quality in the Northeast through long-range transport. NESCAUM also helped its state members coordinate a series of petitions to the U.S. EPA seeking remedies for pollution transport from



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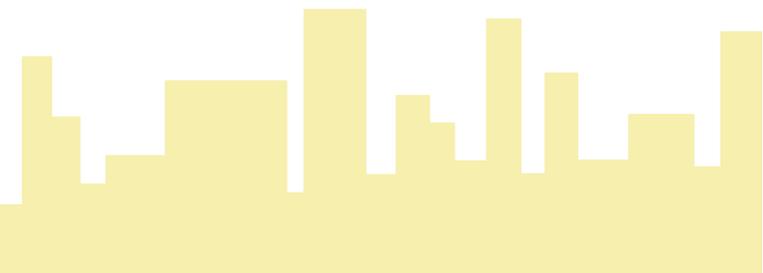
outside the region. These petitions, filed under the Clean Air Act, were the first successful ones of their kind and demonstrated NESCAUM's ability to leverage technical and policy capabilities, through its staff and state members, to promote environmental improvements.

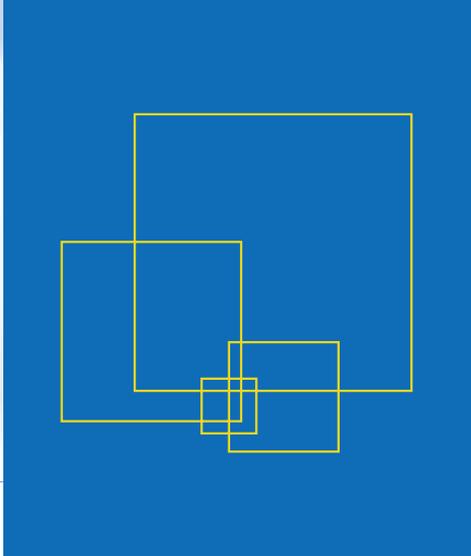
Ideally, state and federal policies complement and reinforce each other. But many of the signature environmental accomplishments of the last half century came about when states were willing to forge ahead of the federal government. Today, this familiar pattern is repeating itself most notably in the realm of climate policy, where the Northeast states, California, and others have already assumed a leadership role. For its part, NESCAUM has focused on developing a state-of-the-art registry for greenhouse gas emissions. Originally conceived as a regional effort, NESCAUM's registry initiative has quickly become a near-national project involving states and tribes from all parts of the country. All of these states and tribes want to "do something" to address climate change and see the development of a robust emissions registry with consistent reporting protocols as a necessary first step toward developing and implementing mitigation strategies.

Even as it strives to lead by example, NESCAUM is working directly with states and the federal government to think broadly about a next generation of air quality policies. As part of a new Air Quality Management Subcommittee under EPA's Clean Air Act Advisory Committee for implementing the Clean Air Act Amendments of 1990, NESCAUM and the Northeast

states are exploring opportunities to achieve better integration and improved performance across all levels of state and federal air programs. The emergence of new challenges like climate change and the growing difficulty of achieving further progress on a number of long-standing pollution concerns have highlighted some of the limitations of the existing regulatory framework, which is based on a pollutant-by-pollutant approach. All parties increasingly agree on the need for multi-pollutant and multi-sector approaches—the task now is figure out what that means and how to make it happen.

Fortunately, NESCAUM and the Northeast states are already a few steps ahead. Their efforts over the last several years to establish more formal connections among agencies, host training workshops for air and energy staff, promote dialogue across disciplines, and develop innovative metrics and tools will provide valuable insights for operationalizing new ways of doing business. At this point, NESCAUM is poised to engage in a number of pilot projects aimed at concretely demonstrating multi-pollutant approaches. For example, one current proposal involves identifying five or six environmental targets—including reductions in greenhouse gas emissions, fine particle and ozone concentrations, haze, mercury emissions, and acid deposition—and using NESCAUM's integrated modeling framework to explore which combination of policies maximizes benefits across these multiple objectives at the lowest cost. This experiment, if successful, could provide a new model for planning efforts, not only for states in the Northeast, but at the national level as well.





## our international efforts

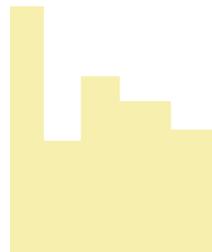
**I**t is already clear that many of the major environmental problems of the 21st century have international as well as regional and national dimensions. There is now broad consensus that atmospheric transport of microscopic particles and acid aerosols occurs on transcontinental scales: power plant emissions from China and fine dust from the Sahara Desert have been detected as far away as the mainland United States. Worldwide combustion of coal mobilizes trace amounts of mercury and adds to a growing global reservoir of this environmentally persistent and potent neurotoxin. While local deposition is a significant issue for mercury, long-range transport is also a factor, as evidenced by signs of mercury accumulation even in remote Arctic ecosystems and in far-ranging marine fish. Finally, climate change seems very likely to emerge as the defining environmental challenge of our time—one that is truly global in its causes and consequences.

In each of these areas, efforts by any one region or nation will not suffice. Nevertheless, U.S. leadership remains critical for achieving significant global progress. Action at home, in terms of developing and demonstrating the advanced technologies needed to address issues like climate change, will provide the political impetus for meaningful collective efforts at the international level. By advocating for more aggressive actions at the federal level, by developing analytical tools and integrated modeling approaches that have widespread applicability, and by experimenting with innovative policies and programs, the Northeast states and NESCAUM can leverage technology and policy developments far beyond their borders. These innovations also present an important economic opportunity for the region, which is well situated to emerge as a leader in the development and production of clean air and energy efficiency technologies.

In some cases, opportunities for international collaboration are relatively close at hand. The Northeast states have a long history of working with the eastern Canadian provinces on issues related to pollution transport and, more recently, mercury and climate change. NESCAUM has begun cooperative efforts with the Province of Ontario to address shared transboundary air quality concerns and challenges. Interest in the Northeast states' activities may also be found further afield.



1967





*NESCAUM's work on mobile source emissions represents another area of technical and policy engagement that has obvious international relevance.*

Several Australian states and territories are considering a cooperative cap and trade program for greenhouse gases that would be similar in governing structure to the Northeast's regional initiative for limiting carbon emissions from the power sector.

NESCAUM's work on mobile source emissions represents another area of technical and policy engagement that has obvious international relevance. Around the world, personal vehicle use, freight transport, and air travel are among the fastest growing sources of greenhouse gases and other types of emissions, including air toxics, diesel soot, and other pollutants that contribute smog and fine particle formation. NESCCAF is involved in an ongoing collaboration with the International Council for Clean Transportation to develop and promote strategies for advancing vehicle technologies that will reduce both toxic pollutants and greenhouse gas emissions around the world. Our most recent effort involves a detailed technical assessment of opportunities to reduce greenhouse gas emissions from long-haul trucks. As with NESCCAF's earlier analysis for automobiles, we hope to document a technology pathway that will inform policy options for addressing this source of global warming pollution.



# nescaum



*NESCAUM was created 40 years ago by the New England Governors on the premise that more heads are better than one. Recognizing that air pollution does not respect political boundaries, air pollution control officials in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont, subsequently joined by New Jersey and New York, pooled their intellectual and fiscal resources to collectively address the region's pressing air pollution problems. Over the years, NESCAUM has successfully combined careful scientific assessment with innovative policy solutions, resulting in significant public health and environmental improvements for the more than 54 million people living in the region. The air quality challenges of today are even more complex than they were 40 years ago,*

*and NESCAUM continues to demonstrate the benefits of regional cooperation, finding integrated approaches to air quality improvements that have helped shape the nation's air quality agenda.*

## nesccaf

*In 1994, NESCAUM created the non-profit sister institution Northeast States Center for a Clean Air Future (NESCCAF) to broaden the foundations of its cutting-edge air quality and climate work. Through innovative collaborations involving business, academic, government, and grassroots organizations, NESCCAF works to address critical clean air issues using solutions that harmonize environmental, public health, economic, and other societal goals. In its relatively short but productive existence, NESCCAF has served as the incubator for a number of collaborative projects, including Clean Air Communities, the Northeast Center for Atmospheric Science and Policy, and the Northeast Diesel Collaborative.*

# 10/01/05 to 9/30/06 financial position

## NESCAUM 10/01/2005 to 9/30/2006

### Revenues

Grants	\$ 4,912,512
Registration Fees	15,828
State Dues	465,000
Interest and Dividends	38,507
Miscellaneous	12,233

**Total** \$ 5,444,080

### Expenses

Personnel	\$ 2,406,206
Program	1,195,966
Travel and meetings*	214,843
Overhead	529,176
Subcontracts	973,002

**Total** \$ 5,319,193

### Net Assets

Beginning of Year	\$ 508,226
End of Year	633,113

**Net change in Assets** \$ 124,887

\* Includes travel subsidies to staff of NESCAUM states to attend meetings and trainings.



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#### Committees/Staff Leads

Air Toxics and Public Health Committee  
*Heidi Hales*

Attainment Planning Committee  
*Leah Weiss*

Climate and Clean Energy Committee  
*Michelle Manion*

Enforcement and Compliance Committee  
*Lisa Rector*

Mobile Sources Committee  
*Coralie Cooper*

Monitoring and Assessment Committee  
*George Allen*

Permit Modeling Committee  
*Gary Kleiman*

Stationary Source and Permits Committee  
*Praveen Amar*

Training Committee  
*Charla Rudisill*

#### Workgroups/Staff Leads

BART Workgroup  
*Gary Kleiman*

Heavy Duty Workgroup  
*Coralie Cooper*

Low Emission Vehicle (LEV) Workgroup  
*Coralie Cooper*

Outdoor Wood-fired Boilers (OWB) Workgroup  
*Lisa Rector*

Vapor Recovery Workgroup  
*Lisa Rector*

#### Member State Agencies/Board of Directors

Connecticut Bureau of Air Management  
*Anne Gobin*  
[www.ct.gov/dep/site/default.asp](http://www.ct.gov/dep/site/default.asp)

Maine Bureau of Air Quality Control  
*James Brooks*  
[www.maine.gov/dep/air/](http://www.maine.gov/dep/air/)

Massachusetts Bureau of Waste Prevention  
*Barbara Kwetz*  
[www.mass.gov/dep/air/index.htm](http://www.mass.gov/dep/air/index.htm)

New Hampshire Air Resources Division  
*Robert Scott*  
[www.des.state.nh.us/ard\\_intro.htm](http://www.des.state.nh.us/ard_intro.htm)

New Jersey Division of Air Quality  
*William O'Sullivan*  
[www.nj.gov/dep/aqm/](http://www.nj.gov/dep/aqm/)

New York Division of Air Resources  
*David Shaw*  
[www.dec.state.ny.us/website/dar/index.html](http://www.dec.state.ny.us/website/dar/index.html)

Rhode Island Office of Air Resources  
*Stephen Majkut*  
[www.dem.ri.gov/programs/benviron/air/index.htm](http://www.dem.ri.gov/programs/benviron/air/index.htm)

Vermont Air Pollution Control Division  
*Richard Valentinetti*  
[www.anr.state.vt.us/air/](http://www.anr.state.vt.us/air/)