NACAA
national association of clean air agencies

Investing in Clean Air and Public Health

A Needs Survey of State and Local Air Pollution Control Agencies

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About NACAA

The National Association of Clean Air Agencies (NACAA) is the association of air pollution control agencies in 53 states and territories and more than 165 major metropolitan areas throughout the country. The members of NACAA have primary responsibility for implementing our nation's air pollution control laws and regulations. The association serves to encourage the exchange of information and experience among air pollution control officials; enhance communication and cooperation among federal, state and local regulatory agencies; and facilitate air pollution control activities that will result in clean, healthful air across the country. NACAA has its headquarters in Washington, DC.

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Executive Summary

Introduction

State and local air pollution control agencies receive funding from a variety of sources, including state and local government funds, the federal Title V permit fee program, state and local fees, and federal grants under Sections 103 and 105 of the Clean Air Act. Unfortunately, state and local air programs have been underfunded for many years. Not only have federal grants remained relatively stagnant, but the purchasing power of state and local air agency resources has decreased due to inflation. At the same time, the responsibilities facing state and local air agencies have increased. Insufficient funds and increasing workloads have combined to result in an erosion of state and local agencies' ability to address air pollution.

Air pollution is a significant public health problem. Millions of Americans are exposed to unhealthful levels of air contaminants, resulting in a host of health problems and, in some cases, premature mortality.

In an effort to determine the level of funding that state and local air pollution control agencies require to protect public health and meet the goals of the Clean Air Act, NACAA distributed a survey to the state and local air agencies, requesting information about their current budgets, the additional resources they need for their programs and how they would spend additional infusions of funds.

Highlights

NACAA received completed questionnaires from 30 state and 39 local air pollution control agencies in 35 states. Their responses confirmed that state and local governments supply more than their fair share of the resources necessary for the nation's clean air program. Section 105 of the Clean Air Act authorizes the federal government to provide grants for up to 60 percent of the cost of state and local air quality programs, while states and localities must provide a 40-percent match. The survey results revealed, however, that state and local air agencies provide 77 percent of their budgets (not including permit fees under the federal Title V program), while federal grants constitute only 23 percent. Clearly state and local agencies are providing the large majority of the funding. As state and local budgets continue to shrink due to the country's current economic crisis, it will be increasingly difficult for state and local governments to continue to foot such a large percentage of the bill.

The survey illustrated that the need for additional funding over and above current levels is enormous. Not including Title V permit fees, which are intended to support only the permitting program and associated costs, the survey results

indicate that state and local air agencies need increases of 47 percent over what is currently available from federal, state and local funding sources to carry out their current programs and support activities they anticipate they will need to undertake in the next few years. State and local air agencies would need $1.3 billion annually to operate their programs. If EPA supplied 60 percent of that amount, as the Clean Air Act envisions, federal grants would amount to approximately $778 million annually. Unfortunately, recent annual appropriations under Sections 103 and 105 of the Clean Air Act have been only approximately $200 million to $220 million. Thus, federal grants should be increased by approximately $550 million to $575 million annually above recent levels to make up this difference and support necessary state and local clean air programs.

In addition to additional federal funding, the survey results also showed that an increase of 61 percent in fees under the federal Title V program is needed, partly due to additional sources that will likely be added to the program. While this fee revenue is critical, it can be used only to support the direct and indirect costs of the federal Title V permitting program, so there are many activities and programs for which it cannot be used.

Significant additional resources are needed in all of the categories the questionnaire identified: ambient monitoring (which includes all types of ambient monitoring, including toxic air pollution, criteria pollutants, etc.), toxic air pollution reduction programs, State Implementation Plan development and implementation in response to federal air quality standards, visibility, compliance, climate change, and miscellaneous activities not included in the other categories. A table identifying the increases needed in each category is provided on page 10.

State and local agencies reported that the additional funds would be used to support a long list of specific activities and programs for all types of pollutants. These efforts would include monitoring, modeling, area (small) sources, emission inventories, small business assistance, inspections, enforcement, reporting, program and rule development, emergency response, information technology, public education and outreach, personnel, training, minor source permitting programs and a host of others.

State and local air pollution control agencies clearly are facing enormous responsibilities with insufficient funding. While there is a need for grant increases of approximately $550 million to $575 million, NACAA recognizes that there are many competing priorities for federal funds and that the current economic climate makes increases of this magnitude impossible. Therefore, NACAA is proposing an increase in federal grants to state and local clean air agencies under Sections 103 and 105 in Fiscal Year (FY) 2010 of only $46 million over FY 2009, for a total of $270 million. This is a modest increase, in light of the true needs of state and local air pollution control agencies.

About the Survey

In November 2008, NACAA distributed a questionnaire to state and local air pollution control agencies across the country asking a series of questions to determine the amount of resources these agencies need to implement their air pollution control programs. The blank questionnaire distributed to the agencies is available at www.4cleanair.org/Documents/surveyform.doc

In particular, NACAA asked state and local air agencies to identify the resource increases they estimate are necessary not only to make their programs whole (that is, to fully support the activities the agencies are already undertaking), but also to carry out additional initiatives that may be necessary to meet the goals of the Clean Air Act. We asked these agencies to consider their true needs and not to temper their responses with concerns about whether Congress or state or local governments would be able to provide such increases. The agencies were asked to provide estimates if exact figures were unavailable or if projections were called for (i.e., for future needs). The responses included in the survey reflect the best estimates from those most knowledgeable about the activities that are necessary to improve and protect public health and air quality.

NACAA requested information about expenditures and budgets for FY 2007, since this was the last complete year for which many agencies had data. State and local activities were broken down into several major program areas, including: Ambient Monitoring, Toxic Air Pollution, State Implementation Plan Planning and Implementation, Visibility, Compliance, Climate Change (assuming Congress adopts a program that requires states to address climate change) and Miscellaneous.

Additionally, NACAA asked the agencies to identify some of the activities they could undertake with the additional funding (including enhancements of existing programs, reinstatement of efforts that had to be ceased in the past and new activities).

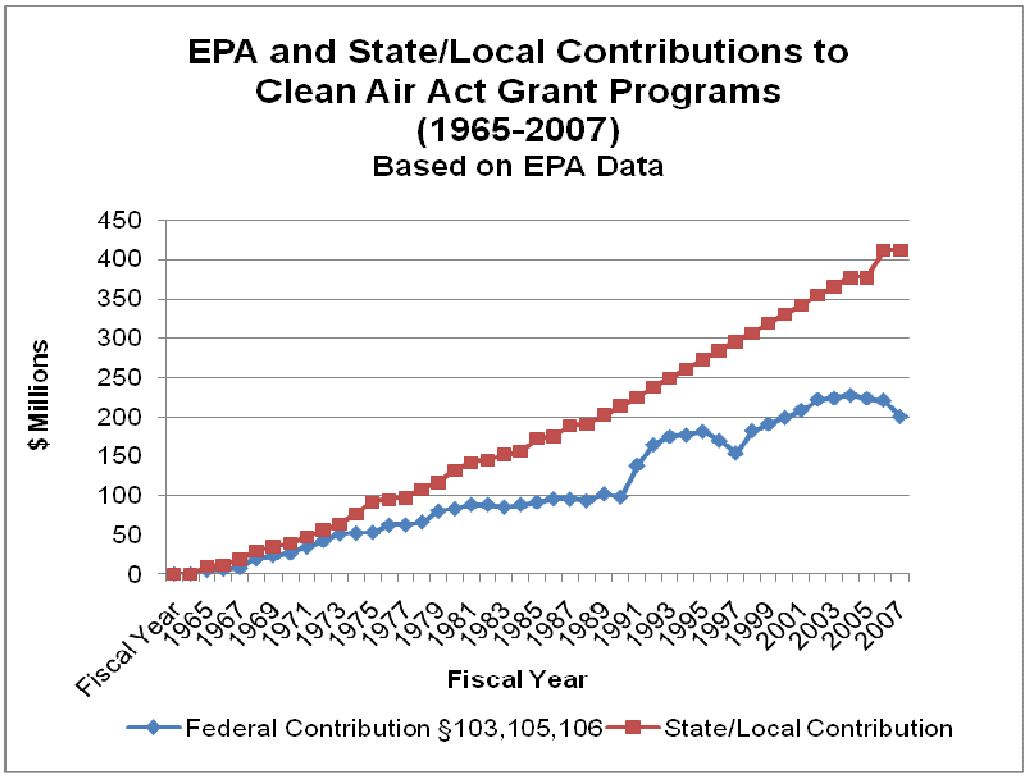
Responsibilities and Funding of State and Local Air Quality Agencies

Under the Clean Air Act, state and local air pollution control agencies have the primary responsibility for implementing the nation's clean air program. They carry out many activities, including developing and implementing State Implementation Plans (SIPs), monitoring emissions, compiling emissions inventories, conducting sophisticated modeling of emissions impacts, issuing permits, inspecting sources of pollution, conducting oversight and enforcement, providing technical assistance to regulated sources and responding to citizens' complaints.

Funding for state and local air pollution control programs comes from a variety of sources. These include state and local appropriations and contributions; the federal permit fee program under Title V of the Clean Air Act (i.e., fees state and local air agencies collect from sources under the federal program); state and local permit and emissions fee programs; and federal grants under Sections 103 and 105 of the Clean Air Act. Section 103 has usually funded specific monitoring efforts (e.g., particulate matter or air toxics monitoring), while Section 105 supports the foundation of state and local air quality programs, including, but not limited to, personnel.

The Clean Air Act authorizes the federal government to provide grants for up to 60 percent of the cost of state and local air quality programs, while states and localities must provide a 40-percent match (as per Section 105). As the survey results will show, however, state and local governments supply over three-fourths of the resources necessary for the nation's clean air program, far more than their fair share.

The following chart, prepared with data from EPA, provides a general comparison of federal and state/local contributions to state and local air pollution control programs throughout the country from 1965 to 2007. (Note: some of the state and local contributions in the chart are based on an assumption that air agencies have provided matching funds of 40 percent. However, since many air agencies actually over-match their federal grants, the state/local contributions illustrated in the chart are understated. Additionally, the chart does not reflect fees that state and local air agencies collect under Title V of the Clean Air Act).



State and local air pollution control agencies have been struggling for many years with inadequate resources. Not only has federal funding for state and local air quality agencies been relatively stagnant, over the past 15 years federal grants to state and local air agencies (not including the separate fine particulate matter monitoring program) have actually decreased by approximately one-third in terms of purchasing power, due to inflation. This reduced spending power has come at the same time as increasing demands related to new programs, such as developing State Implementation Plans to meet ozone, fine particulate matter ($PM_{2.5}$) and regional haze requirements.

Problems Related to Air Pollution

Air pollution presents a significant threat to public health. While great strides have been made in reducing levels of air pollution, every year tens of thousands of people die prematurely as a result of breathing polluted air. Millions more are exposed to unhealthful levels of air contaminants, resulting in many other health problems, such as aggravation of existing respiratory and cardiovascular disease, damage to lung tissue, impaired breathing, irregular heartbeat, heart attacks and lung cancer.

According to EPA's estimates, over 150 million people live in areas that violate at least one of the National Ambient Air Quality Standards (NAAQS) for the six health-based "criteria pollutants" (e.g., ozone, lead, particulate matter,

etc.). These figures are likely to increase once EPA completes the designation of areas that exceed the new fine particulate matter standard. Fine particulate matter alone is responsible for up to 30,000 premature deaths each year.

There are many other pollutants besides those covered by the NAAQS that threaten public health. EPA has developed risk estimates related to exposure to a list of over 180 hazardous air pollutants identified in the Clean Air Act, which present a very troubling picture of the prevalence of toxic air pollutants in our country. For example, when the cancer risks from all toxic air contaminants listed as known, probable or possible carcinogens based on human data are combined, EPA estimates that more than 270 million people in the U.S. live in census tracts where the combined upper-bound lifetime cancer risk exceeds a 10 in one million risk (one in one million risk is generally considered acceptable). Additionally, more than 92 percent of the people in this country live in areas with "hazard index" values for respiratory toxicity greater than 1.0 (with 1.0 being the level above which adverse effects to the respiratory system occur).

The accumulation of greenhouse gases (GHGs) in the atmosphere from human activity is causing global warming, which is already adversely affecting the planet and will have even more profound effects in the future unless expeditious action is taken to reduce GHG emissions. In February 2007, the Intergovernmental Panel on Climate Change (IPCC) concluded that the evidence of global warming is “unequivocal” and it is very likely (at least a 90-percent probability) that human activities have contributed to the global warming experienced to date. The IPCC also concluded that global warming is already affecting our planet and is expected to cause severe impacts in the future. State and local agencies are already taking many actions to address greenhouse gases. Effective federal measures are essential to address this problem as soon as possible. These efforts will require additional time, attention and resources in the future and, without additional federal funds, will further stress state and local agency budgets.

Major Findings of NACAA’s Funding Study

The state and local agencies that responded to the questionnaire provided a wealth of information about their budgets and expenditures. Additionally, many agencies shared insights into the activities that have suffered due to insufficient budgets and the projects and programs they would undertake to protect public health and air quality if they had sufficient resources. The following pages include the primary findings from the survey, as well as highlights from some of the other interesting information NACAA received.

NACAA received responses from 30 state and 39 local air quality agencies located in 35 states. A list of agencies that responded to the questionnaire is located at the end of this report. The agencies ranged in staff

size from very small (3 employees) to large (354 employees), with an average staff size of 83. As requested, most of the agencies used FY 2007 information for the questions pertaining to their current budgets. Those that could not provide FY 2007 figures used their most recent data. Not all agencies follow the federal fiscal year (October 1 – September 30) so they provided data based upon their own fiscal calendars. While the information the agencies submitted does not reflect FY 2007 to the dollar, it does provide a general sense of the current budgets and projected needs.

The information the agencies provided relating to FY 2007 Section 103 and 105 grants represented 55 percent of the national total of those grants for FY 2007 ($109 million out of $200 million). Since the main objective of the study was to determine the additional national grant needs, this percentage was used to extrapolate projected total national needs from the responses received.

Federal Grants are a Small, But Essential, Part of the Funding Equation

According to the survey responses, federal grants under Sections 103 and 105 of the Clean Air Act represent only 23 percent of state and local air pollution control agencies' expenditures (not including fee revenue from the Title V permitting program), while the state and local agencies provide 77 percent of their budgets.

This is in contrast to what the Clean Air Act envisioned. Section 105 of the Act authorizes the federal government to provide grants for up to 60 percent of the cost of state and local air quality programs, while states and localities must provide a 40-percent match. Clearly state and local agencies are providing the large majority of the funding. Their ability to maintain these contributions has already suffered and it will become increasingly difficult as state and local budgets continue to shrink due to the country's economic crisis. It is no longer a realistic option to continue to rely on increases in the state or local contributions to offset the cost of necessary and required program changes. Serious budget shortfalls at the state and local levels are affecting the availability of the state and local funds that have supported environmental programs in the past.

While federal grants are only a portion of state and local air agencies' budgets overall, they provide essential funding to many agencies, especially smaller ones. Federal grants are, and will continue to be, a critical piece of the state and local resource air quality equation.

Additional Resources Needed for State and Local Air Quality Programs

The survey asked respondents to consider the resource increases they estimate would be needed not only to make their programs whole (that is, to fully

support the activities their agencies are already undertaking), but also to carry out additional activities they believe would be necessary to meet the goals of the Clean Air Act. The intent of the study was to understand how much would be necessary for these agencies to improve and protect air quality and to do the job well. The questionnaire asked the agencies to consider their true needs and not to temper their responses with concerns about whether such increases could be provided. With respect to greenhouse gases, respondents were instructed to assume that Congress will adopt a program that requires states to address climate change and to estimate the cost of the federal requirements and any additional state or local programs that will be necessary.

The questionnaire requested separate responses for Title V permit fees and other expenditures, since the fees are intended to support only the Title V permitting program and associated costs. Responses about both types of funds will be described separately.

Section 103/105 Grants

State and local air agencies require an enormous increase in funding over and above current levels. The survey results indicate that these agencies need increases of 47 percent over what is currently available from federal, state and local funding sources to carry out their current programs and support activities they anticipate they will need to undertake in the next few years (again, these are activities not covered by Title V permit fees).

There are two ways to calculate what the federal share of Section 103 and 105 grants should be. One is to calculate 60 percent of just the increase needed. However, this would not rectify the current inequity that exists under which state and local air agencies supply 77 percent of the total expenditures, rather than the 40 percent envisioned by the Clean Air Act. The other method for calculating the increase in federal grants that is necessary is to calculate 60 percent of the *total* amount that is needed and subtract the current grant level.

The survey reveals that, in order to protect public health, state and local air agencies would need $1.3 billion annually to operate their programs. Using the latter of the two methods described in the previous paragraph, if EPA supplied 60 percent of the total as the Clean Air Act envisions, federal grants would amount to approximately $778 million annually. Unfortunately, recent annual appropriations under Sections 103 and 105 of the Clean Air Act have been only approximately $200 million to $220 million. Thus, federal grants should be increased by approximately $550 million to $575 million annually above recent levels to make up this difference and support necessary state and local clean air programs.

Further, as the demands placed on state and local air programs increase, the effect of the shortfall will intensify. Unless state and local air quality programs

receive substantial increases in federal funding, they will continue to face a serious financial deficit, and their ability to protect and improve air quality will be further compromised.

Title V Permit Fees

The Clean Air Act requires state and local agencies to collect fees (Title V fees) sufficient to cover the direct and indirect costs of the federal permitting program. These can include activities such as reviewing and acting upon permit applications, implementing and enforcing the terms and conditions of the permit, monitoring emissions, modeling, analyzing data, preparing inventories and tracking emissions. According to the survey respondents, increases of 61 percent in Title V fees above current amounts will be needed as the air program expands to address emerging issues. These necessary increases are reflective of elevated fee amounts and/or additional sources that the respondents foresee being added to the program.

Significant Increases for a Range of Programs

State and local air agencies were asked to separate data about their current expenditures and estimates of the additional funds they will need on an annual basis into the following categories: Ambient Monitoring; Toxic Air Pollution; SIP Planning and Implementation; Visibility; Compliance; Climate Change; and Miscellaneous[1]. It is conceivable that one agency may have included a certain activity in a particular category while another agency placed it into a different one. Therefore, while the totals are instructive, the results for each of the categories should be taken as broad estimates that provide a general sense of how additional funds would be distributed.

State and local air agencies report that the program most in need of additional resources is climate change – 27 percent of the total funding increases needed are in this category. Currently there is little funding available for climate change activities – agencies report that only 1 percent of their current budgets support climate change activities. Federal climate change legislation has not been adopted, but it likely will be and, regardless, action to address climate change is needed.

In addition to funding shortfalls for climate change, all the categories are in need of significant increases. The table below shows the results for each of the categories.

[1] Under "Miscellaneous", respondents included activities related to environmental justice, asbestos, odors, complaint response, indoor air quality, training, outreach, small business assistance, management, administration, information technology and many others.

	Percent increase needed – not including Title V fees (and amount needed)	Percent increase needed – Title V fees (and amount needed)	Percent of budget currently dedicated to each category (including grants, Title V fees and other funds)	Percent of total funding increases needed to support each category (including grants, Title V fees and other funds)
Ambient Monitoring[2]	38% ($31.8 million)	64% ($16.3 million)	16%	14%
Toxic Air Pollution	105% ($31.8 million)	59% ($8.4 million)	6%	11%
SIP Planning and Implementation	34% ($34.8 million)	42% ($24.3 million)	23%	17%
Visibility	15% ($7.3 million)	102% ($5.3 million)	8%	4%
Compliance	27% ($38.5 million)	30% ($26.6 million)	33%	18%
Climate Change	1,013% ($58.6 million)	2,580% ($38.5 million)	1%	27%
Miscellaneous	43% ($28.5 million)	70% ($12.7 million)	12%	12%

[2] Monitoring activities for all the program areas are included in this category (e.g., toxics or SIP-related monitoring are reflected here and *not* in the toxics or SIP categories).

Additional Funds Will Be Used for Important Clean Air Activities

The state and local agencies were asked to identify the activities and programs that they would undertake with increased funding. They provided a long list of activities, ranging from very general (e.g., "increase climate change activities") to extremely specific (e.g., "increased field auditing requirements from annually to quarterly for $PM_{2.5}$"). However, the state and local respondents identified certain kinds of efforts repeatedly, including (but not limited to) the following:

- programs to address emissions from minor and area (small) sources, including accepting delegation of the federal air toxics area source regulations, identifying sources, increasing the frequency of inspections, providing small business compliance assistance, and carrying out enforcement activities;
- modeling of air pollution exposures and risk, especially related to hazardous air pollutants and criteria pollutants;
- planning for greenhouse gases;
- development, improvement, review and analysis of emissions inventories for greenhouse gases, toxic air pollutants and criteria pollutants;
- issuing permits;
- increased frequency of compliance evaluations and enforcement;
- emissions reporting;
- placement of additional monitors and commencement or continuation of monitoring activities related to greenhouse gases, hazardous air pollutants and new standards for fine particulate matter, ozone and lead;
- development of SIPs for the new fine particulate matter, ozone and lead standards;
- development of rules for greenhouse gases;
- emergency response and remediation activities;
- upgrades to computers and other technical equipment;
- enhancement of vehicle inspection and maintenance programs;
- development and analysis of emission reduction strategies related to visibility;
- anti-idling and other programs related to diesel emissions from trucks and buses;
- regulation of emissions from animal feeding operations;
- compliance assistance;
- public education and outreach;
- retention of experienced staff and hiring of additional staff to take on new programs and/or fill vacancies; and
- staff training.

Additional Climate Change Activities are Anticipated

State and local agencies expect that additional climate change activities and efforts will be required of them in the near future, depending on federal, state and local requirements and programs. The survey asked agencies to identify the activities they anticipate carrying out to address climate change. The respondents listed a range of activities, including the following:

- inventory development and maintenance;
- rule adoption;
- participation in a climate registry;
- implementation of control programs;
- implementation of a cap-and-trade program (including emission reporting and distribution of allowances);
- compliance and enforcement;
- technical assistance to the regulated community;
- planning;
- permitting activities, including integration of requirements into permits;
- coordination with utility commissions;
- implementation of energy-efficiency programs;
- source identification;
- staff training; and
- public outreach and education.

Funding Constraints Have Hurt State and Local Air Programs

State and local air pollution control agencies have struggled with inadequate resources for many years, due to stagnating federal grants, decreasing purchasing power of the funds they do receive, and increasing workloads. These agencies have felt the consequences of these limited funds in many ways, resulting in adverse impacts on their programs. When state and local clean air agencies are forced to make hard choices and scale back essential air quality-related activities, public health and welfare suffer. In the words of one of the agencies, "Our mission statement is to protect the health and welfare of our citizens. We are failing our citizens."

State and local agencies were asked to identify some of the repercussions they have experienced as a result of funding constraints in recent years. Their responses included the following examples, among others:

- loss of trained and experienced staff and an inability to fill vacancies;
- reduction in air monitoring and associated data analysis;
- inability to create or maintain emission inventories;
- elimination of air toxics programs;

- curtailment of small business assistance;
- reduction in staff training;
- inability to accept delegation of federal programs (especially related to toxic air pollutants from small, or "area", sources);
- disinvestment in programs such as asbestos;
- decline in enforcement and compliance activities;
- cessation of some public education efforts;
- backlog in issuance of permits for minor sources; and
- difficulty in maintaining or replacing equipment.

Conclusion

The survey results clearly illustrate that state and local air pollution control agencies are facing ever-increasing responsibilities and that there is a corresponding need for significant grant increases – as much as $550 million to $575 million. However, NACAA recognizes that there are many competing priorities for federal funds and that the current economy is very poor. As a result, grant increases to provide full funding is not viable right now. For FY 2010, NACAA is proposing an increase in federal grants to state and local clean air agencies under Sections 103 and 105 of only $46 million over FY 2009, for a total of $270 million. This is a modest increase, considering that the real needs are over an order of magnitude higher.

List of Respondents

State Air Quality Agencies

Alabama
Alaska
Arizona
Arkansas
Colorado
Connecticut
District of Columbia
Florida
Idaho
Illinois
Indiana
Iowa
Kentucky
Louisiana
Michigan
Minnesota
Mississippi
Missouri
Montana
Nebraska
New Hampshire
New Jersey
New Mexico
New York
North Carolina
Ohio
Oklahoma
Oregon
Washington
Wisconsin

Local Air Quality Agencies

Birmingham, AL
Florence, AZ
Phoenix, AZ
Tucson, AZ
Sacramento, CA
San Diego, CA
San Francisco, CA
Santa Barbara, CA
Tehama County, CA
Ventura, CA
Miami, FL
Palm Beach, FL
Tampa, FL
Johnson County, KS
Kansas City, KS
Kansas City, MO
Springfield, MO
Omaha, NE
Asheville, NC
Charlotte, NC
Winston-Salem, NC
Akron, OH
Cincinnati, OH
Cleveland, OH
Dayton, OH
Lake County, OH
Portsmouth, OH
Toledo, OH
Lane County, OR
Philadelphia, PA
Chattanooga, TN
Knoxville, TN
Nashville, TN
Houston, TX
Olympia, WA
Seattle, WA
Spokane, WA
Vancouver, WA
Yakima, WA

Acronyms

EPA – U.S. Environmental Protection Agency

FY – Fiscal Year

GHG – Greenhouse Gas

IPCC – Intergovernmental Panel on Climate Change

NAAQS – National Ambient Air Quality Standards

NACAA – National Association of Clean Air Agencies

$PM_{2.5}$ – Particulate Matter of 2.5 microns or less (fine particulate matter)

SIP – State Implementation Plan