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Task #2: Summary of Current Status

1. **Air Quality Issues and Concerns:**

   a. Status of National Ambient Air Quality Standard (NAAQS) nonattainment:

   Current Nonattainment Areas in New York State

   8-Hour Ozone (0.08 parts per million (ppm) NAAQS)

   Moderate

   New York-Northern New Jersey-Long Island, NY-NJ-CT Area
   Bronx, Kings (Brooklyn), Nassau, New York (Manhattan), Queens, Richmond (Staten Island), Rockland, Suffolk and Westchester Counties
   Poughkeepsie, NY Area
   Dutchess, Orange and Putnam Counties
   Jefferson County, NY Area
   Jefferson County

   Basic (Subpart 1)

   Albany-Schenectady-Troy, NY Area
   Albany, Greene, Montgomery, Rensselaer, Saratoga, Schenectady and Schoharie Counties
   Buffalo-Niagara Falls, NY Area
   Erie and Niagara Counties
   Essex County, NY Area
   The portion of Whiteface Mountain above 1900 feet in elevation
   Jamestown, NY Area
   Chautauqua County
   Rochester,NY Area
   Genesee, Livingston, Monroe, Ontario, Orleans and Wayne Counties

   $PM_{2.5}$

   New York-Northern New Jersey-Long Island Area-
   Bronx, Kings (Brooklyn), New York (Manhattan), Queens, Richmond (Staten Island), Nassau, Suffolk, Westchester, Rockland and Orange Counties

1-Hour Ozone

Severe

New York-Northern New Jersey-Long Island, NY-NJ-CT Area -
Bronx, Kings (Brooklyn), Nassau, New York (Manhattan), Queens, Richmond (Staten Island), Southern Orange (including Towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick & Woodbury), Suffolk, Rockland and Westchester Counties.

Moderate

Poughkeepsie, NY Area -
Dutchess, Northern Orange (excluding Towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick & Woodbury) and Putnam Counties.

Marginal

Albany-Schenectady-Troy, NY Area -
Albany, Greene, Montgomery, Rensselaer, Saratoga, and Schenectady Counties.
Buffalo-Niagara Falls, NY Area -
Erie and Niagara Counties
Jefferson County, NY Area -
Jefferson County
Essex County, NY Area -
The portion of Whiteface Mountain above 4500 feet in elevation.

Carbon Monoxide

Maintenance

New York-Northern New Jersey-Long Island, NY-NJ-CT Area
Bronx, Kings (Brooklyn), Nassau, New York (Manhattan), Queens, Richmond (Staten Island), Westchester Counties.
Syracuse, NY Area -
Onondaga County

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PM_{10}

Moderate

New York-Northern New Jersey-Long Island, NY-NJ-CT Area -
New York County

All of New York State is included in the Ozone Transport Region and additional requirements apply to certain emission sources statewide regardless of local non-attainment designation.

b. Air toxics

New York State's need to reduce hazardous air pollutant (HAP) emissions statewide is driven by the following agency and national goals:

(1) The New York State Department of Environmental Conservation's (NYSDEC's) commissioner priorities' for the agency, including 6NYCRR Part 212, and

(2) The 1990 Clean Air Act Amendments (CAAA), including 40 CFR Part 63, the National Emission Standards for Hazardous Air Pollutants program (NESHAPs) and §112(k) of the CAAA, Integrated Urban Air Toxics Strategy. HAPs represent a subset of the numerous air toxics emitted to the ambient air.

NYSDEC's commissioner priorities' for the agency include:

(a) promoting a toxic free future by initiating a process to revise the air toxics program to allow for improved characterization of source categories emitting HAPs;

(b) working for and with environmental justice communities to implement HAP emission reduction strategies in New York City neighborhoods with high asthma incidence and continue to identify and control sources of toxic and harmful pollutants in urban areas;

(c) fostering green healthy communities by developing further strategies to reduce ozone in all parts of New York by 2012 and to achieve and maintain compliance with the fine particulate matter standard.

The Clean Air Act Amendments of 1990 require the United States Environmental Protection Agency (EPA) to regulate source categories to substantially reduce the public health risk due to exposure to hazardous air pollutants, including a 75percent reduction in cancer incidence.

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Recognizing that air toxics pose special threats in urban areas and that industrial and mobile sources contribute to the public health risk, EPA supplemented their existing air toxics regulatory program with an Integrated Urban Air Toxics Strategy. In the Strategy, EPA presents a framework for addressing air toxics in urban areas, looking collectively at large and small industrial and commercial operations. Goals for the Strategy reflect both statutory requirements stated in section 112(k) and the goals of the overall air toxics program. The overall goal is to attain a 75-percent reduction in incidence of cancer attributable to exposure to HAPs emitted by air pollution sources. Additionally, the Strategy identifies health effects, other than cancer, posed by all HAPs.

New York's Air Quality Management Plan (AQMP) will consider both stationary and mobile source emissions of HAPs. The goals of the AQMP should put particular emphasis on highly exposed individuals, such localized communities of high concentrations and specific population subgroups (e.g., children, the elderly, and low-income communities).

The list of HAPs identified by the Urban Air Toxics Strategy is extensive and New York's AQMP will focus on the urban HAPs listed in **bold** lettering.

acetaldehyde, acrolein, acrylonitrile, arsenic compounds, **benzene**, beryllium compounds, **1,3-butadiene**, cadmium compounds, carbon tetrachloride, chloroform, chromium compounds, coke oven emissions, 1,2-dibromoethane, 1,2-dichloropropane (propylene dichloride) 1,3-dichloropropene, ethylene dichloride (1,2-dichloroethane), ethylene oxide, **formaldehyde**, hexachlorobenzene, hydrazine, lead compounds, manganese compounds, mercury compounds, methylene chloride (dichloromethane), **nickel compounds**, polychlorinated biphenyls (PCBs), **polycyclic organic matter (POM),** quinoline, 2,3,7,8-tetrachlorodibenzo-p-dioxin (and congeners and TCDF congeners), 1,1,2,2-tetrachloroethane, tetrachloroethylene (perchloroethylene), trichloroethylene, vinyl chloride. **Diesel Exhaust** was not listed as a §112(k) HAP but was estimated in NATA.

Based upon EPA's 1999 National-scale Air Toxics Assessment (NATA), benzene is the most significant air toxic for which cancer risk could be estimated. The estimated air concentrations for benzene contributed 25 percent of the average individual cancer risk identified. The 1999 national emissions inventory reports the following key sources for benzene: on road (49%) and non-road mobile sources (19%), and open burning, prescribed fires and wildfires (14%). Residential heating from wood combustion accounts for approximately 6% of the total benzene emissions.

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In EPA's assessment, the 1999 NATA reports that acrolein contributes 91 percent of the nationwide average non-cancer hazard index. Based on the national emissions inventory, the key sources for acrolein are open burning, prescribed fires and wildfires (61%), on road (14%) and non-road (11%) mobile sources.

POM and fine particles are a component of diesel exhaust. Diesel exhaust is described by EPA under NATA as:

Diesel Particulate Matter (PM) is a mixture of particles that is a component of diesel exhaust. EPA lists diesel exhaust as a mobile source air toxic due to the cancer and non-cancer health effects associated with exposure to whole diesel exhaust. EPA believes that exposure to whole diesel exhaust is best described, as many researchers have done over the years, by diesel particulate concentrations.

In 1998, nickel compounds were identified as pollutants of concern from the firing of oil in the §112(n) Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units, Final Report to Congress. This finding was overturned in 2004 and subsequently remanded by the District Courts. Nickel should be identified as a pollutant of concern for the multi-pollutant study SIP and emissions of nickel from sources should be addressed.

New York State's goal is to reduce the pollutants bolded in the needs section above. First and foremost is the reduction of benzene. The primary **benzene** emissions are on-road and off-road mobile sources. Benzene is also emitted during the fueling of gasoline bulk storage tanks and the fueling of vehicles. Several HAPs are present in gasoline and are emitted to the air when gasoline evaporates or passes through the engine as unburned fuel. A significant amount of automotive air toxics come from the incomplete combustion of compounds in gasoline, such as toluene and xylene, both that are chemically similar to benzene. **Formaldehyde**, **acetaldehyde**, **diesel exhaust particulate matter POM**, and **1,3-butadiene** are not present in fuel but are by-products of incomplete combustion. Formaldehyde and acetaldehyde are also formed through a secondary process when other mobile source pollutants undergo chemical reactions in the atmosphere.

The statewide monitored annual average for **benzene** in 2007 was 0.91 $ug/m^{3,}$ which is 7.0 times (0.91/0.13) the annual guideline concentration as reported in the 2007 AGC/SGC tables of DAR-1. The average measured concentration in New York City's seven metropolitan sites for 2006 was 1.2 ug/m^3 or 9.2 times the AGC for benzene. A targeted goal of 75% reduction in benzene emissions statewide would equate to an overall emission level of 0.22 ug/m^3.

The statewide monitored 2007 annual average for **1,3 –butadiene** was 0.12 ug/m^3 , this is 3.5 times (0.12/0.033) the annual guideline concentration as reported in the 2007 AGC/SGC tables of DAR-1. The average measured concentration in New York City's seven metropolitan sites for 2006 is 0.14 ug/m^3 or 4 times the AGC for 1,3 –butadiene emissions.

Nickel compounds have been identified as a major concern in the burning of fuel oil. 1999 NATA estimates a range in urban counties of 0.009 to 0.060 ug/m^3. The current AGC for nickel is 0.0042 ug/m^3 based upon carcinogenic health effects. Monitored 2000 speciated $PM_{2.5}$ data reports the nickel component at 0.01 to 0.06 ug/m^3 at urban sites.

c. Other air quality issues and concerns for your area

Regional Haze

Regional haze is a persistent issue across the country. The northeast, in particular, has seen reductions in visibility of up to 83 percent from natural conditions. Because the pollutants that cause visibility impairment (primarily SO_2, PM_{10}, and NO_x) are easily transported great distances, the EPA presented a regional solution to the problem. On July 1, 1999, EPA released its final Regional Haze Rule, which contained the goal of reaching natural visibility conditions by 2064. The regional approach presented within this rule means that many states, including those which do not contain Federal Class I areas, must participate in haze reduction efforts.

NYSDEC is currently finalizing its Regional Haze State Implementation Plan (SIP). New York State, although containing no Class I areas, is a member of the Mid-Atlantic/Northeast Visibility Union Regional Planning Organization (MANE-VU RPO). As a state which significantly contributes to the regional haze problem in downwind Class I areas within MANE-VU, NYSDEC is required to make certain commitments to reduce emissions of these visibility-impairing pollutants. Among these commitments are the timely promulgation of a Best Available Retrofit Technology (BART) regulation, which addresses these pollutions for older stationary sources; a 90 percent or greater reduction in SO_2 emissions from the highest-polluting electric generating unit sources in the state; and, the implementation of a low-sulfur fuel oil strategy. Aside from the visibility improvement that is expected within Class I areas, these measures should result in visibility, acid rain, ozone, and PM benefits within New York.

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Lead

With the phasing-out of leaded gasoline and lead-based paints, lead emissions within the United States have decreased dramatically since 1980. Despite this progress, a significant amount of research done on the effects of lead on the nervous system (with associated IQ losses and behavioral issues), cardiovascular system, and immune system, implies that a much more stringent standard is necessary. Because of this new health evidence, EPA is set to revise the lead NAAQS for the first time since 1978. With the final rule set to be effective in September, 2008, EPA is proposing a stricter standard within the range of 0.10 to 0.30 $\mu g/m^3$.

There are no nonattainment areas within New York State under the current standard of 1.5 $\mu g/m^3$. Projections show that, depending upon the standard chosen, New York State may fall under nonattainment of the new lead NAAQS in at least one downstate county due to emissions from a lead smelting facility. State designation recommendations are due to EPA no later than September, 2009. By this time, NYSDEC will identify any nonattainment areas and, if necessary, take the appropriate measures to meet attainment as expeditiously as practicable.

Acid Deposition

Acid deposition is largely a result of the SO_2, NO_x, and ammonia (NH_3) emissions from power plants and other stationary sources burning fossil fuels (coal, oil, natural gas, etc.), as well as from vehicle emissions. Sulfuric and nitric acid are formed in the atmosphere, and return through wet deposition (commonly referred to as acid rain) or dry deposition. Such deposition affects forest and aquatic ecosystems, visibility, and human health.

Acid deposition is of great concern to NYSDEC, especially in areas such as the Adirondack Park. NYSDEC has responded by promulgating a number of regulations that will effectively reduce emissions of these pollutants. This includes the implementation of budget trading programs for SO_2 (6 NYCRR Part 238) and NO_x (6 NYCRR Part 204 during the ozone season; 6 NYCRR Part 237 during the non-ozone season). EPA also adopted the Clean Air Interstate Rule (CAIR) in 2005, applicable to all states east of the Rocky Mountains. NYSDEC recently promulgated these measures (6 NYCRR Parts 243, 244 and 245).

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2. Climate Change, Greenhouse Gas Initiatives

Scientific evidence suggests that a warming climate poses a serious threat to New York's environmental resources and public health. Climate changes will have effects on air quality, water quality, fisheries, drinking water supplies, wetlands, forests, wildlife, and agriculture. Flooding from severe weather events and rising sea levels can damage communities and infrastructure in floodplains and along coastlines.

In 2005, 244.96 million tons of Carbon Dioxide (CO_2) and 819,252 tons methane were emitted in New York State. Carbon dioxide formed during fuel combustion accounts for the vast majority of greenhouse gas emissions in New York State, approximately 88.5 percent. The largest single source of emissions is transportation fuel combustion, representing more than 30 percent of the total. Burning fossil fuels for electric generation is also a major contributor of CO_2 to the atmosphere, and in New York, electric power plants emit approximately 25 percent of all CO_2 emissions. This means that reducing the amount of CO_2 emitted by power plants is a necessary piece of any solution to climate change. (Source: NYS Greenhouse Gas Emissions Inventory, NYSERDA, Draft dated May 22, 2007)

The Regional Greenhouse Gas Initiative, or RGGI, is a regional agreement to reduce greenhouse gas emissions from power plants. Under the RGGI agreement, the governors of 10 Northeastern and Mid-Atlantic States have committed to cap the amount of carbon dioxide that power plants are allowed to emit. State regulations will hold the allowed level constant through 2014, and then gradually reduce it. By 2019, the cap will be 10 percent lower than it initially was, and emissions are estimated to be 16 percent lower than they would be if the power plants had continued emitting on a business-as-usual basis.

The RGGI states have negotiated a regional CO_2 budget of approximately 188 million tons, and have apportioned it among themselves. New York's initial CO_2 budget will be approximately 64.3 million tons (before the 10 percent reduction is made). The states are currently developing rules to implement the CO_2 Budget Trading Program.

Responsibility for implementing RGGI will be shared by three departments of New York State government: the Department of Public Service, NYSDEC and the Energy Research and Development Authority (NYSERDA). NYSDEC and NYSERDA are currently engaged in rulemaking to implement RGGI; the rules were released for public comment in October, 2007.

NYSDEC will establish New York's CO_2 Budget Trading Program through a new rule (6 NYCRR Part 242) and revisions to an existing rule (6 NYCRR Part 200, General Provisions). The New York State Energy Research and Development Authority (NYSERDA) will administer the auction process by which the state will

sell emissions allowances to the power plants through a new rule (21 NYCRR Part 507 - CO_2 Allowance Auction Program). Under this rule, proceeds from sale of the allowances will fund projects and programs for energy efficiency and clean renewable energy. The release of the draft regulations kicks off a 60-day public comment period that ended on December 24, 2007.

Stakeholder involvement has been crucial to RGGI's success in developing a workable model rule to serve as a template for all the RGGI states' regulations. New York's stakeholder group, which included energy industry representatives and non-governmental organizations, met 14 times between 2003 and 2007. Public comment was solicited and reviewed on a variety of written documents, including draft reports of the RGGI working groups and the model cap-and-trade rule used as a template for the states' regulations. New York has also invited comments on an advance draft of its proposed CO_2 budget regulations.

3. Energy Issues, Renewable Energy, Energy Efficiency

Oil, gas and solution salt mining wells are economically important in New York State with more than 75,000 wells drilled in the state since the late 1800's; about 14,000 of these are still active and new drilling continues. Extraction of oil and gas contributes half a billion dollars to the state's economy each year. Wells are also drilled in New York for underground gas storage, geothermal heating/cooling, stratigraphic exploration and brine disposal.

NYSDEC's Division of Mineral Resources administers regulations and a permitting program to mitigate to the greatest extent possible any potential environmental impact of drilling and well operation. The Division strives to work cooperatively with all customers and stakeholders to achieve the mission of ensuring the environmentally sound, economic development of New York's non-renewable energy and mineral resources for the benefit of current and future generations.

By embracing renewable energy along with energy conservation practices, New Yorkers can significantly reduce dependency on foreign oil, create jobs, ensure a reliable energy supply, reduce air pollution and cut greenhouse gas emissions. New York State has great potential to generate power from renewable sources such as the sun, wind, water, and biomass (plant material and waste).

The 2002 New York State Energy Plan placed a priority on increased energy diversity and use of renewable energy sources. In 2004, New York State implemented a Renewable Portfolio Standard to promote the research, development and use of alternative energy. Under the current standard, the goal is to increase the proportion of renewable electricity used by New Yorkers from the 2004 baseline of 19.3% to at least 25% by the year 2013. Renewable energy sources include wind, hydroelectric, solar and biofuels.

Wind energy development is an important component of New York's clean renewable energy initiative as well as the state's ability to achieve the Renewable Portfolio Standard of 25% of energy to be produced from renewable sources by the year 2013.

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4. Ecosystem Health

a. Specific ecosystems that are endangered at least in part due to air pollution

In the early 1970's, acid deposition was identified as a serious ecological threat to New York State's waters and forests. The primary emissions responsible for acid deposition are sulfur dioxide (SO_2) and oxides of nitrogen (NO_x) from the combustion of fossil fuels which are transformed and transported downwind before they are deposited. Acid deposition is of particular concern to New York State because of important and sensitive ecosystems which lie immediately downwind of the largest mid-western utilities burning fossil fuels and emitting SO_2 and NO_x emissions in North America.

An ecosystem is considered sensitive to acid deposition when it lacks adequate soil buffering capacity to counter the acids deposited to it. While many areas of New York State are not sensitive to acidity because of limestone deposits or soils which neutralize the acid, the Adirondacks, Catskills, Hudson Highlands, Rensselaer Plateau and parts of Long Island are particularly sensitive to acid deposition. The soil and bedrock in these areas are not able to counteract the acid in the rain and snow.

In the Adirondack region, acidic deposition has affected hundreds of lakes and thousands of miles of headwater streams. The diversity of life in these acidic waters has been greatly reduced. Fish populations have been lost, and loons and otters have moved to other lakes where they can find food. Acid rain weakens the trees and causes them to be more susceptible to pest and disease. Some of our Adirondack Mountain tops are void of trees partly because of the exposure to lower pH from acid precipitation and clouds.

Acid deposition also damages building materials by eroding the ornamental facades, statuary and other vulnerable edifices that are an important part of our heritage. In addition to being the main ingredient in acid rain formation, SO_2 also leads to sulfate formation; acidic particles that can cause respiratory problems in humans.

b. Services provided by ecosystems that are threatened due to air pollution

[Reserved]

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5. Human health effects observed in your state due to poor air quality and/or poor land-use planning (e.g.: increased asthma, respiratory disease, increased obesity, environmental justice issues)

Environmental Public Health Tracking (EPHT) focuses on our ability to learn more about important patterns and trends in environmental health. By reviewing how hazards, exposures, and diseases change over time or across regions of the state, questions can be generated about whether those trends are meaningful. These questions, or their answers, may direct future research, public health interventions, or other activities that might prevent or control environmentally related health problems. Exploring these trends also might help us to improve the types of data collected, how data are managed and how we share data with other agencies and data users.

Both the New York State Department of Health (NYSDOH) and NYSDEC are responsible for managing and developing environmental and public health information systems. NYSDOH is building a surveillance system that will provide data about environmental hazards, exposures and health effects throughout New York State over time. Methods are being developed that can be used to automate the secure exchange of data. The surveillance system will be used to examine environmental and health data sets and to identify unusual geographic patterns and time trends.

NYSDOH is conducting several projects that test our ability to link environmental and health data sets and to identify unusual geographic patterns, clusters, or trends over time. Some of these projects were designed to help address an important State Health Department goal: enhancing our capability to track the public health significance of environmental exposures (air pollution and drinking water contaminants) to children. With these projects, we hope to learn more about how to link environmental and health data to explore possible relationships between environmental hazards and health effects. What we learn will help to improve our ability to track other environmental exposures and possibly related health outcomes, and will also prompt additional investigations to explore the findings in more detail.

One part of the “Asthma and Air Quality” project explores trends for measured and estimated levels of air pollutants within air quality regions of NY State and childhood hospitalizations for asthma. The project also includes a series of epidemiological investigations examining the relationship between air pollution and asthma and other respiratory diseases. The investigations use different measures of air quality, such as 8-hour daily maximum ozone levels or daily average levels of small particulate matter. One investigation is examining the daily childhood hospital admissions in New York State and ozone levels for 1991-2001. Another investigation focuses on the chronic effects of ozone on the first hospital admission for respiratory disease for children born in New York State from 1995 through 1998. The studies use analytic and statistical methods that can

take into account other factors, such as seasonal patterns, meteorological conditions, population density, or lag time between exposure and effect.

The October 2007 “New York State Asthma Surveillance Summary Report” concludes that in 2005, asthma affected over 1.1 million New York State (NYS) adults and 370,000 children. During 2003-2005, an average of 300 deaths per year occurred due to asthma in NYS, which was lower compared to 2001-2003. This represented an age-adjusted rate of 15 deaths per one million residents. There was an average of approximately 42,400 asthma hospitalizations for NYS residents in 2003-2005, for an age related rate of 22 per 10,000 residents. This represents a 3 to 7 percent reduction compared to the 1999-2001 period. During 2003-2005, an average of 14,700 asthma hospitalizations were for NYS children between the ages of 0 to 14 years; the crude rate was 39 per 10,000 residents. Medicaid enrollees accounted for 45% and Medicare enrollees an additional 20% of all asthma hospitalizations.

The “Air Quality and Birth Outcomes” project is a series of epidemiological investigations of the relationship between air pollution and reproductive outcomes conducted in conjunction with the University at Albany School of Public Health. In one investigation, birth weight and prematurity among infants born in New York State between 1995 and 2001 are being examined in relation to levels of ozone and particulate matter of less than 10 microns. The study methods take into account other maternal factors that have been reported to be associated with low birth weight or prematurity, such as early prenatal care. Another investigation will focus on infant mortality and air pollution.

NYSDOH is also working with the US Centers of Disease Control and Prevention and EPA, as well as Maine and Wisconsin, on an EPHT project called PHASE (Public Health Air Surveillance Evaluation). Different approaches to characterizing air quality are being evaluated for how well they allow researchers to estimate individual exposures to ozone or particulate matter less then 2.5 microns. Each of the air quality characterizations have been temporally and spatially linked with hospitalization data for asthma and myocardial infarction, which is one form of cardiovascular disease, to better understand their strengths and limitations. Of particular interest is the usefulness of each method for conducting routine surveillance and epidemiological analyses. More in-depth investigation is planned for the relationship between air quality and hospitalization for myocardial infarction.

EPHT is a multidisciplinary partnership program. Teams have been formed that include epidemiologists, toxicologists, information technology specialists, environmental scientists, statisticians, educators, and others from NYSDOH, NYSDEC, and the University at Albany's School of Public Health. CDC and other federal agencies such as the EPA are providing data, technical guidance, and assistance. These partnerships are key to the success of the EPHT program.

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A number of key people are also participating in a planning consortium that provides advice and recommendations about the design and execution of the EPHT program. This consortium includes individuals representing community and advocacy groups, as well as academics, and professionals with a wide range of experience and expertise. It has provided input on many of the technical aspects of the program. Members also provide advice on strategies for outreach and communication. (Source: http://www.health.state.ny.us/statistics/environmental/public_health_tracking/epht.htm)

Environmental Justice

Environmental justice is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income when developing, implementing and enforcing environmental laws, regulations and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear more than its share of negative environmental impacts.

Environmental Justice issues concern the potential for higher environmental exposures and related human health problems in lower income and minority communities. These focus on quality-of-life issues such as pollution from clustered industrial facilities, traffic, landfills, transfer stations, and lack of open space and waterfront access. The rates of some diseases and health conditions are also higher in low-income and minority communities, which can be subject to other factors that can affect health, such as poor housing conditions and limited access to doctors and health clinics. Growing evidence suggests that environmental factors can influence certain diseases, such as asthma. NYSDEC established its Environmental Justice Program in 1999, to address the environmental concerns of low-income and minority communities. In 2003, NYSDEC released its Environmental Justice Policy. One of its key objectives is to promote more involvement of low-income and minority communities in NYSDEC's permitting and project review processes.

NYSDOH has been participating on the Environmental Justice Program's Health Outcome Data Work Group, which identified reliable sources of health data and ways that NYSDEC could use these data in the permitting and project review process. The Health Outcome Data Work Group's Report recommends identifying data for diseases and health conditions of concern in low-income and minority communities, such as asthma hospitalizations and percentage of infants born with low birth weight.

The Work Group Report further recommends that health data be considered by NYSDEC along with other factors when reviewing a permit for a facility that falls under the policy and would affect a low income or minority community.

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NYSDOH is working with NYSDEC to implement the report recommendations and on other projects to address environmental justice issues.

6. Land use
    a. Is sprawl a major concern in your state/area?
    b. Increased vehicle miles traveled (VMT)?
    c. Reduction in open space?
    d. Reduced mobility for certain segments of your population?

    [Reserved]

7. Current stakeholders in your air quality management process

    [Reserved]

8. **Current process for implementing air quality management**
    Is it all legislated? Does a commission direct regulation?

    The process for promulgating regulations in New York State is governed by the State Administrative Procedure Act (SAPA), some specific statutory requirements, and by Executive Order #20, which requires review of proposed and revised rules by the Governor's Office of Regulatory Reform (GORR). NYSDEC must file all regulations through the Department of State (DOS) prior to adoption. DOS is responsible for public notice of all proposed regulations in the weekly State Register, which contains notices of newly proposed rules and proposed revisions to existing rules, and later provides notice that a new or amended rule has been adopted.

    The rulemaking process begins with approval from the executive office. A Rulemaking Initiation Memorandum (RIM) discusses the relevant issue, a discussion of the need for a regulatory response, and the NYSDEC's proposed action. Once the RIM has been approved by the NYSDEC Commissioner, a scoping meeting is held with appropriate members of NYSDEC and GORR in order to inform all involved parties of the proposed rule.

    At this time, rule writing begins by drafting the actual written text, or Express Terms, of the new or revised rule. This represents what is eventually published under Title 6 of the New York Codes, Rules and Regulations (6 NYCRR). A number of support documents are drafted in conjunction with the Express Terms, to be submitted to GORR for review and approval. These documents, the contents of which are regulated by SAPA, include:

    - Regulatory Impact Statement (RIS) – A general overview of the regulation detailing, among other things, the statutory authority, need for and justification of the proposal, expected cost and recordkeeping/reporting impacts, and compliance schedule.

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- Regulatory Flexibility Analysis for Small Businesses and Local Governments (RFA) – Consideration of, and steps taken by NYSDEC to minimize any negative impacts on small businesses (independently owned businesses wholly within New York State of 100 employees or fewer) or local governments. This includes an explanation of what opportunities were provided to these entities to participate in the rulemaking process.

- Rural Area Flexibility Analysis (RAFA) – Defined as counties with populations of fewer than 200,000 people and towns in non-rural counties where population density is less than 150 people per square mile, this must state any impacts or requirements imposed upon rural areas. This must also express opportunities provided for rural citizens, businesses or organizations to participate in the rulemaking.

- Job Impact Statement (JIS) – Necessary for all regulations affecting 100 or more jobs and employment opportunities, this document details the number and categories of jobs affected, regions of the state suffering a disproportionate impact, and measures taken to minimize any impact on jobs and employment opportunities.

Also drafted at this time are three documents required under the State Environmental Quality Review Act. These SEQR forms are submitted with the above support documents for review and approval by GORR:

- Environmental Assessment Form (EAF) – A description of the proposed rule and evaluation of any land use and other short-term, long-term, or cumulative environmental impacts.

- Coastal Assessment Form (CAF) – An analysis of what affects the rulemaking may have on the land or waters of New York State's coastal areas.

- Determination of Significance – Submitted in the form of a Negative Declaration when no significant adverse environmental impacts are expected, or a Positive Declaration, when there is evidence that some harmful impacts may occur.

Once the above documents have been approved by GORR, a public hearing is to be held in order to provide an opportunity for the public to express concerns over the rulemaking. A Notice of Public Hearing must be published in the Environmental Notice Bulletin 30 days prior to the hearing. Such notice many also be published in newspapers local to the regulation's affected area. Public comments are gathered during the hearing and for a minimum of 5 days afterwards.

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Once all comments have been received, the regulation and SAPA/SEQR documents are revised as needed, and a meeting is scheduled with the Environmental Board. Under the Environmental Conservation Law (ECL), approval must be granted by the Environmental Board for all regulations that establish environmental standards or criteria. After a technical briefing and presentation to the Environmental Board, approval is granted, and the regulation can be finalized. Internal approval from the Commissioner is granted through the signing of a Certificate of Adoption. A Notice of Adoption is published in the State Register, and the regulation becomes effective 30 days after filing with DOS.

9. Please provide information on knowledge already gained from prior relevant studies that will influence this project

   [Reserved]

10. Other planning efforts that may have some bearing on the AQMP (*e.g.*: watershed plans, climate action plans, emergency or contingency planning)

    PlaNYC

    PlaNYC is a compilation of initiatives intended to make the City of New York "the model for cities in the 21st Century." PlaNYC is a holistic vision that focuses on five key elements of the city's environment – land air, water, energy and transportation recognizing that choices in one area have unavoidable impacts on the other areas. The air quality goal of PlaNYC is to "achieve the cleanest air quality of any big U. S. city." We laud the City of New York for this ambitious goal and will partner with the City to help it achieve this goal. While much of PlaNYC has an outlook beyond the attainment date of this plan (2012) and is focused on pollutants that are not causing ozone, many initiatives within PlaNYC will help reduce emissions of NOx and VOCs in time to assist with the 2012 attainment of the ozone NAAQS. It should be noted that the Department is not committing to adopting any of these measures as part of the SIP, but is instead providing these programs as information to further its weight-of-evidence demonstration. If the Department chooses to include these measures in a future SIP revision, it will first evaluate each measure resulting from this initiative individually to determine if it is appropriate to be included in the SIP. The Department will need to consider among other things whether the measure is quantifiable, enforceable, and include emissions reductions that are additional to other adopted SIP measures.

    The PlaNYC measures include:

    - Improving the fuel efficiency of private cars by waiving New York City's sales tax on the cleanest, most efficient vehicles and working with the Metropolitan Transportation agency (MTA), the Port Authority, and the

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New York State Department of Transportation (NYSDOT) to promote hybrid and other clean vehicles. Pilot new technologies and fuels, including hydrogen and plug-in hybrid vehicles.

- Reducing emissions from taxis and other for-hire vehicles by reducing idling and increasing fleet efficiency. This will be accomplished by working with the Taxi and Limousine Commission, the industry and other stakeholders.

- Retrofit ferries and mandate the use of cleaner fuels. Retrofit the Staten Island Ferry fleet to reduce emissions. Work with private ferries to reduce their emissions.

- Replace, retrofit and refuel diesel trucks. Introduce biodiesel into the City's truck fleet, go beyond compliance with local laws, and further reduce emissions. Accelerate emissions reductions of private fleets through existing Congestion Mitigation and Air Quality (CMAQ) programs. Work with stakeholders and the State to create incentives for the adoption of vehicle emission control and efficiency strategies.

- Improve compliance of existing anti-idling laws through targeted educational campaign.

- Reduce emissions from buildings by improving energy efficiency, decreasing fuel consumption, promoting the use of cleaner burning heating fuels, and facilitating the repowering, replacement and retirement of out-of-date equipment at older power plants.

- Implement more efficient construction management practices. Accelerate adoption of technologies to reduce construction related emissions.

- Partner with Port Authority to reduce emissions from port marine vehicles, port facilities and airports.

- Reduce emissions from boilers in 100 city public schools.

- Reforest 2,000 acres of parkland. Increase tree planting on lots. Through MillionTreesNYC, plant and care for one million new trees across the City's five boroughs over the next decade.

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"15 by 15" Initiative

"15 by 15" is a comprehensive plan for reducing energy costs and curbing pollution in New York. It calls for the reduction of electricity use by 15 percent from forecasted levels by the year 2015 through new energy efficiency programs in industry and government. It also calls for the creation of new appliance efficiency standards and the setting of more rigorous energy building codes. The Department is not committing to the inclusion of any of these measures as part of the SIP at this time. The Department will evaluate each measure resulting from this initiative individually to determine if it is appropriate to be included in the SIP. The Department will need to consider among other things whether the measure is quantifiable, enforceable, and include emissions reductions that are additional to other adopted SIP measures.

11. Regional and neighboring state issues

[Reserved]

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