The Process Behind PlaNYC

How the City of New York Developed Its Comprehensive Long-Term Sustainability Plan

Written by
ICLEI–Local Governments for Sustainability USA
In association with
The Mayor's Office of Long-Term Planning and Sustainability, City of New York

April 2010

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Acknowledgements

The writing team for this case study consisted of the following individuals from ICLEI–Local Governments for Sustainability, with special thanks to the individuals listed below from the City of New York.

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To develop this case study, a number of individuals involved in the development of PlaNYC provided valuable insights into the details of the planning process and the factors for success for the plan. Special thanks to Angela Sung, Joe Salvo, Sandy Hornick, Jeff Kay, Laurie Kerr, and Jon Dickinson from the City of New York and Joe Chan and Jim Whelan formerly with the City; and to Bob Yaro, Kathy Wylde, Ester Fuchs, Pam Friedlander, Marcia Bystryn, and Peggy Shepherd from the City of New York's Sustainability Advisory Board. Additional thanks to Don Knapp for his help editing the case study and to Kim Lundgren (former ICLEI U.S. Services Director) for creating the opportunity with the City of New York to develop this case study.

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ICLEI–Local Governments for Sustainability

ICLEI–Local Governments for Sustainability is an international non-profit membership association of local governments dedicated to climate protection and sustainable development. The organization was established in 1990 with more than 200 local governments from 43 countries and has grown to have over 1,100 members internationally. ICLEI USA was founded in 1995 with a small group of local government members and has grown to a vibrant network of over 600 local governments taking significant action to quantify and reduce their greenhouse gas emissions while improving overall community sustainability. The mission of ICLEI USA is to build, serve, and support a movement of local governments to advance deep reductions in greenhouse gas emissions and achieve tangible improvements in local sustainability.

The Mayor's Office of Long-Term Planning and Sustainability, City of New York

The Mayor's Office of Long-Term Planning and Sustainability, City of New York, was created in June 2006 and was charged with developing and implementing PlaNYC, the City's long-term sustainability plan. The Mayor's Office of Long-Term Planning and Sustainability is responsible for developing and coordinating the implementation of policies, programs and actions to meet the long-term needs of the city, with respect to its infrastructure, environment and overall sustainability citywide. The Office is also charged with developing measurable sustainability indicators to assess the city's progress in achieving sustainability citywide and is responsible for taking actions to increase public awareness and education regarding sustainability and sustainable practices.

Design by Quicksilver Communication www.qsilver.com

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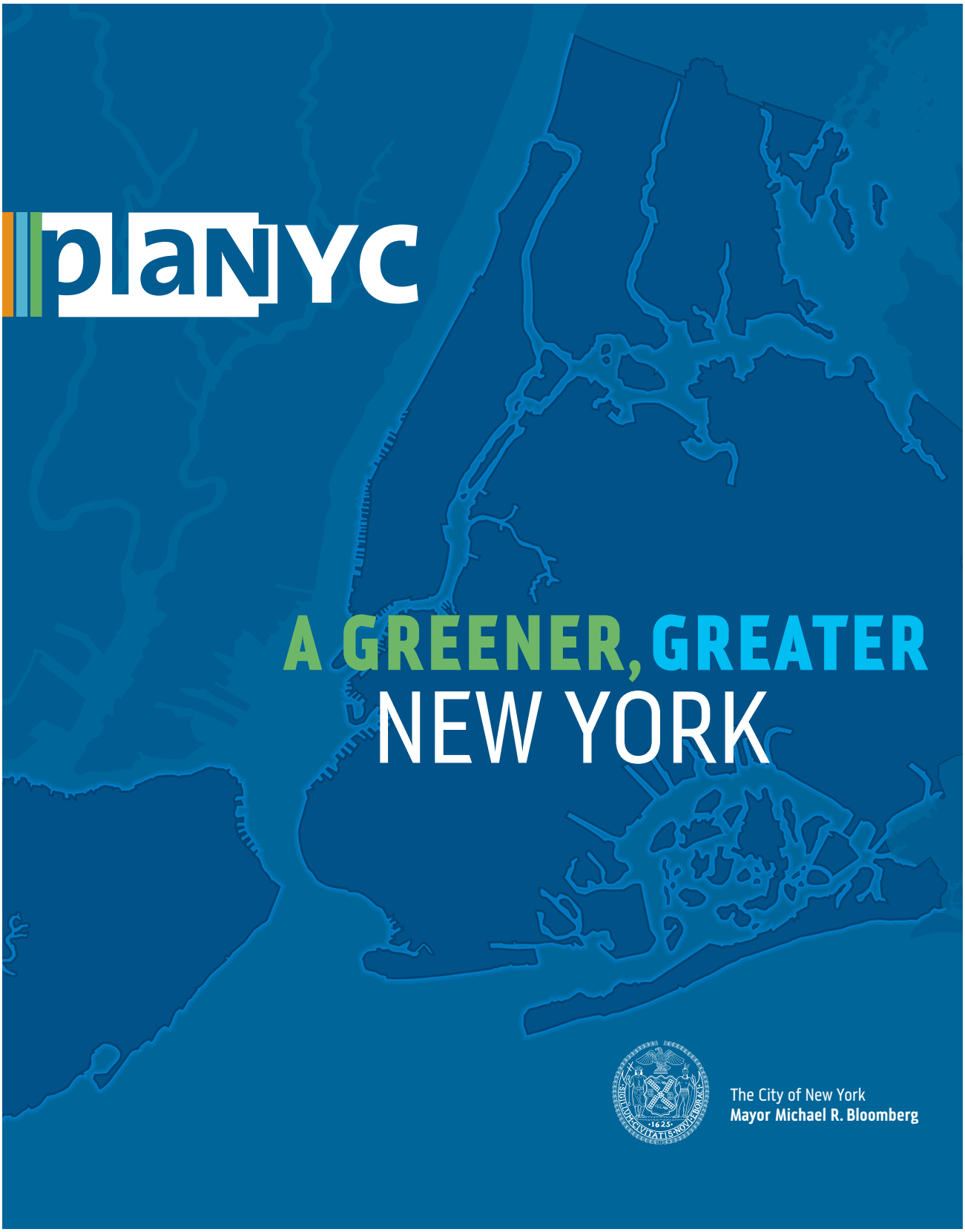

NYC MAYOR'S OFFICE OF LONG-TERM PLANNING AND SUSTAINABILITY

PlaNYC: A Greater, Greener New York was released on Earth Day, April 22, 2007 and includes ten goals and 127 initiatives to make New York City more sustainable.

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Executive Summary

Why PlaNYC Merits Study and Sharing

On Earth Day, April 22, 2007, New York City released PlaNYC, its far-reaching sustainability plan including 127 initiatives to achieve ten overarching goals to improve the infrastructure, environment, and quality of life in the city. Since the release of the plan, the City has made great strides towards implementing the plan – passing groundbreaking green buildings legislation, creating miles of bike lanes, opening acres of open space, cleaning the air, and reducing greenhouse gas emissions. PlaNYC is a success because it is not just a plan; it is an action-oriented agenda that provided the City with a framework for implementing bold changes. It is a plan that has sparked the interest of elected officials, local government staff, academics, and people wanting to make their communities more sustainable. This case study provides an unprecedented look at the process New York City followed to develop the plan, to share the lessons learned from New York with communities around the world.

NYC ECONOMIC DEVELOPMENT CORPORATION

PlaNYC Achievements Since 2007

PlaNYC isn't just a vision, or a report that has collected dust. In three years, the City has made remarkable progress toward its sustainability goals and over two-thirds of its initiatives are on-time or ahead of schedule. Some key achievements include:

- 19 rezonings approved focusing development in areas well-served by transit
- 100,000 affordable housing units created or preserved
- 319,054 trees planted and 113 schoolyards to playground sites opened by April 2010
- Office of Environmental Remediation created, becoming nation's first municipal brownfield office
- All 14 wastewater treatment plants now meet Clean Water Act's 85% pollutant removal requirement harbor-wide
- 200 miles of bicycle lanes installed and bike access law enacted
- Times Square, Herald Square, and Madison Square transformed into pedestrian-friendly plazas
- Greener, Greater Buildings Plan enacted into law, requires energy efficiency upgrades in all large buildings
- 86 energy efficiency projects completed as part of plan to reduce City government energy use 30% by 2017
- 25% of the yellow taxi fleet converted to hybrid vehicles
- Clean air school bus law enacted, requiring installation of interior air quality controls on entire fleet
- 9% decrease in citywide carbon emissions due to cleaner power generation and less sulfur hexafluoride release
- Assessment of climate change impacts on critical infrastructure completed by Task Force

10 Factors Contributing to PlaNYC's Success

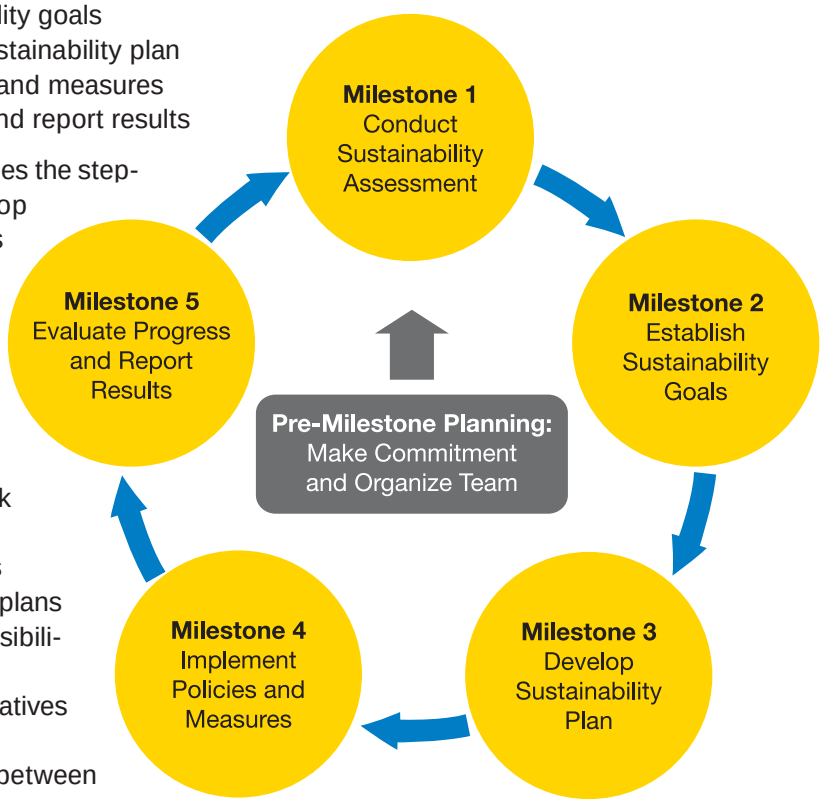
ICLEI–Local Governments for Sustainability spent over a year researching and understanding the process New York City followed to develop PlaNYC and interviewed many of the key people involved in the development of the plan. Through this research process, ICLEI has identified the top ten factors for success of PlaNYC:

1. Strong **mayoral leadership** and **cooperation between** the Mayor's Office and City Council
2. A group of dedicated city agency staff performed **in-depth research and analysis,** involving extensive **coordination and collaboration** between the agencies.
3. A **methodical, transparent, and inclusive planning process**
4. **Central management and coordination** provided by the Mayor's Office of Long-Term Planning and Sustainability.
5. An external Sustainability Advisory Board provided **best practice advice and guidance.**
6. A **comprehensive public outreach process** generated broad public support and helped to educate the general public about climate change and sustainability issues.
7. The Mayor's Office of Long-Term Planning and Sustainability **strategically released** the plan by coordinating announcements with key stakeholders.
8. The plan included an **implementation plan** with a timeline and a funded budget.
9. Swift **transition from planning to action:** the City is actively implementing all 127 initiatives
10. **Openness for innovation** and policy-making not driven by politics or business as usual

PlaNYC as a model for ICLEI's Five Milestones for Sustainability

Taking into account these success factors, ICLEI has used the PlaNYC case study as a model for its Five Milestones for Sustainability process, outlined in its Sustainability Planning Toolkit. The Milestones, which provide local governments with a straightforward process for developing a high-quality plan, can be used by local governments of different sizes or with varying scopes for their plan, are as follows:

- Milestone One: Conduct a sustainability assessment
- Milestone Two: Establish sustainability goals
- Milestone Three: Develop a local sustainability plan
- Milestone Four: Implement policies and measures
- Milestone Five: Evaluate progress and report results



The Sustainability Planning Toolkit defines the step-by-step guidelines for how to develop a sustainability plan and also outlines the key elements of a wide-ranging, action-oriented plan, which include:

- Facts and figures from the sustainability assessment to illustrate the issues being addressed in the plan
- Goals to set a vision and framework for the plan
- Aggressive but achievable initiatives
- Initiatives with clear implementation plans covering timing, funding, and responsibilities
- A narrative that explains how the initiatives in the plan address the challenges
- A matrix illustrating the relationship between the goals and initiatives
- Monitoring and evaluation for tracking progress

Environmental Leadership and Sharing Best Practices

This case study and the Sustainability Planning Toolkit provide local governments with the resources they need to chart their own course towards sustainability, following New York City's model. New York City has demonstrated that environmental leadership not only involves developing a thorough and inspiring plan, but it requires action and it involves sharing lessons learned.

Introduction

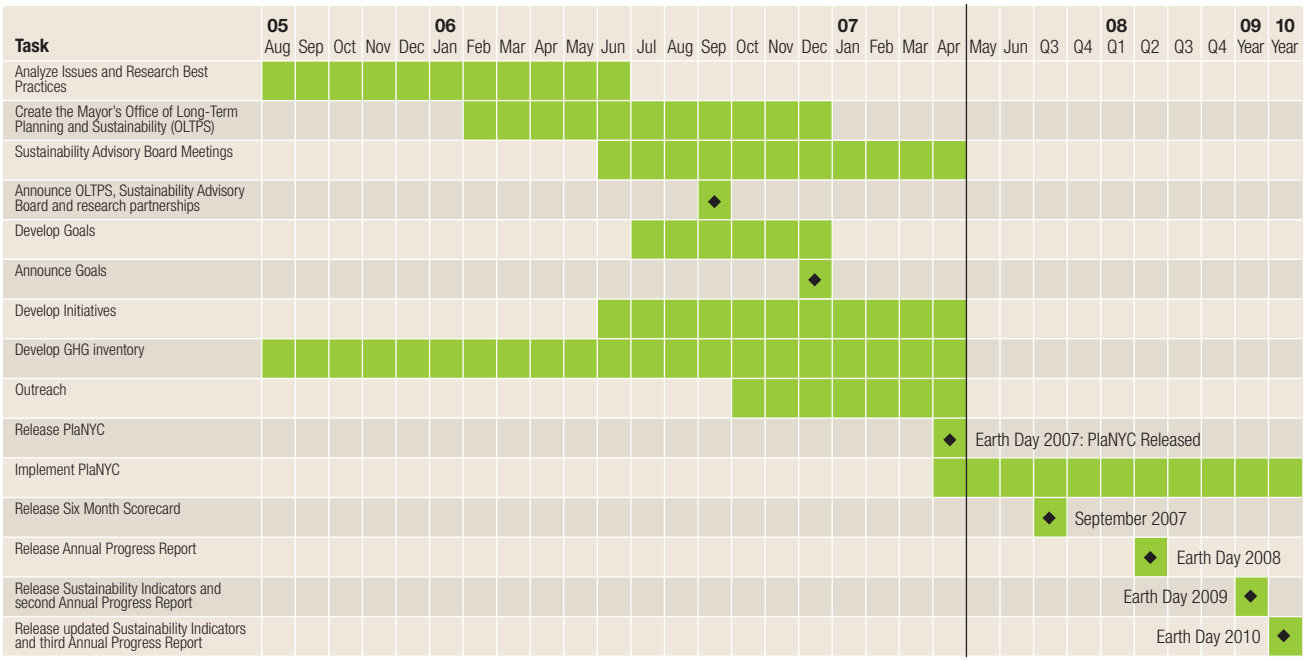
Cities around the world are taking unprecedented to actions to reduce greenhouse gas emissions, increase density, improve transit infrastructure, create public spaces, and protect their fragile environmental resources. To do this, cities need to learn from each other and share ideas. "There are three convictions we share, that global warming is a reality … that for the first time in human history, the majority of the population lives in cities … and that cities share a powerful responsibility to address global warming," said New York City Mayor Michael Bloomberg at a an international summit on public health and climate change, hosted by the New York City Global Partners on June 25, 2008. The Mayor went on to say that New York City has learned from cities around the world and does not have a "pride of authorship problem. If somebody has a good idea around the world, we would like to adopt it here, and we are thrilled when somebody else takes one of our ideas and uses it."

"We are all on the same planet and we all have to share best practices," said Mayor Bloomberg.

This case study describes the process that the City of New York undertook to develop PlaNYC, a 127-initiative sustainability plan released on Earth Day 2007. PlaNYC provides a vision for the future growth of New York City – to accommodate one million more people in an already dense city, while at the same time reducing the City's greenhouse gas emissions by 30 percent and improving the City's infrastructure. The plan addresses three main challenges – growth, aging infrastructure, and an increasingly precarious environment – and puts forward the overarching goal to create a "greener, greater New York."

The far-reaching PlaNYC has been hailed as a breakthrough in sustainability planning and is considered by local governments around the country to be the gold standard for big-city sustainability plans. This case study has been developed to share the lessons learned from PlaNYC to help other cities, towns, and counties advance the principles of sustainability in their communities through action-oriented plans like PlaNYC.

Using PlaNYC as a model, and taking into account its key principles, process framework, challenges, and successes, ICLEI–Local Governments for Sustainability USA (ICLEI) has created its Sustainability Planning Five Milestone process to help its local government members navigate the sustainability planning process. For more information on ICLEI's Sustainability Five Milestone process, refer to ***ICLEI's Sustainability Planning Toolkit***.



Timeline for developing PlaNYC.

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Seven Private-Sector Strategies Adopted by the City of New York during the Bloomberg Administration

When Mayor Michael Bloomberg took office in 2001, three months after the attacks of September 11th and amidst a major fiscal crisis, he sought to make government more efficient by "doing more with less," and by incorporating business principles into the daily operations of city government. Dan Doctoroff, Deputy Mayor for Economic Development and Rebuilding, credits the Mayor's innovative and accountability-driven management style for his ability to accomplish so much during his time in office, and for why bold initiatives like PlaNYC have been successful:

- A City, like a business, needs a long-term **strategic plan,** and PlaNYC represents the Mayor's cornerstone strategic plan for the City.
- The Mayor cultivated a culture in City government that empowers staff to **innovate** by hiring top talent and encouraging them to develop creative new solutions to the toughest problems.
- As an **independent leader,** the Mayor has made decisions based on what is best for the City and not necessarily what makes him popular with the voters, which was essential when contemplating some of the controversial issues such as congestion pricing that are in PlaNYC.
- As a businessman, the Mayor instilled the discipline of performing **cost-benefit analyses** on all investments in terms of capital projects or new programs. But he does not require City staff to just look at the financial benefits of an investment; he also asks them to consider other intangibles such as quality of life improvements.
- The Mayor recognized that good ideas alone cannot accomplish major changes. Staff must **communicate and package ideas** skillfully and make sure the public is on board with major proposals.
- Finally, the Mayor also believes that City government needs to be held **accountable** for its actions, going so far as to make public a report on how he is doing compared to his campaign promises; he adopted the same approach to progress reporting with PlaNYC.

The toolkit and this case study are intended to be complementary resources designed to provide step-by-step guidelines and a detailed example of how to develop a sustainability plan.

ICLEI selected PlaNYC as the model for the Sustainability Five Milestone process because of the comprehensive scope of the plan, the extensive planning process the City undertook to analyze issues, and the broad public outreach performed by the City to more than 70 stakeholder groups. These processes are detailed throughout this case study to help all local governments learn from New York's experience.

The case study follows the planning process from inception to the present day, in which the City is in the midst of implementing the 127 initiatives in PlaNYC. In order to provide the reader with an understanding of the sequence of tasks and events, the case study is presented in chronological order, following the timeline of the key phases and milestones illustrated on the previous page.

The case study was developed through a series of in-depth one-on-one interviews with key City staff and external stakeholders involved in the development of the plan and provides an unprecedented level of insight into the process, challenges, and strategies behind New York City's sustainability plan.

"We are all on the same planet and we all have to share best practices," said Mayor Bloomberg.

The Scope and Success of PlaNYC

The City used PlaNYC as an effort to tie together all of its sustainability activities in order to achieve ten sustainability goals – to create a greener, greater New York. The plan calls for the implementation of 127 initiatives and defines the timeline, next steps, funding sources, and lead implementation agency for each initiative. PlaNYC has one of the broadest mandates of a sustainability plan to date in the United States and addresses the interrelated topics of land use, water, energy, air, transport, and climate change.

PlaNYC is not a plan that sits on a shelf – it is a plan that the City is actively implementing and tracking the progress of the implementation. Reflecting on the magnitude of PlaNYC, Dan Doctoroff, former Deputy Mayor for Economic Development and Rebuilding recalled:

> **Most cities when they look out over the long term they use a lot of buzz words and they talk about aspirations. If you take a look at PlaNYC, it was not about aspirations. It was about 127 separate initiatives that looked at our physical environment in a wholly integrated, wholly new way. Really speaking at the same time about transportation and energy and land use, including parks. Brownfields. Housing. Looking at our water supply, air quality. And, perhaps most importantly, New York City's contribution to the climate change crisis that we all face. The point is, though, we actually looked at the city almost block by block, neighborhood by neighborhood, system by system, out 23 years. That is long term planning. That is what people do in the private sector. It is not what people do, typically, in the public sector.**

PlaNYC is broadly supported by the citizens of New York City and has received praise from local governments around the world who seek to replicate it. While it is difficult to pinpoint a single reason for the plan's success, the following factors contributed significantly to the high quality and broad acceptance of the plan:

- A group of dedicated city agency staff performed **in-depth research and analysis**, involving extensive **coordination and collaboration** between the agencies.
- The Mayor's Office of Long-Term Planning and Sustainability provided **central management and coordination.**
- An external Sustainability Advisory Board provided **best practice advice and guidance**.
- A **comprehensive public outreach process** generated broad public support and helped to educate the general public about climate change and sustainability issues.
- The Mayor's Office of Long-Term Planning and Sustainability **strategically released** the plan by coordinating announcements with key stakeholders.
- The plan included an **implementation plan** with a timeline and a funded budget.

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Five Overarching Principles for PlaNYC

At an event on April 15, 2009 at the Museum of the City of New York showcasing PlaNYC and presenting a vision for a green New York City, Former Deputy Mayor Dan Doctoroff reflected on the impact of PlaNYC. Mr. Doctoroff called PlaNYC "one of the most sweeping, most comprehensive blueprints for New York ever undertaken," and added, "We like to think of it immodestly as a transformative vision for the city," but also as a vision that includes "a very, very detailed action plan for how to get there." He described five guiding principles that underpinned the City's thinking while developing the plan, all using the letter A:

- **Aspirational**. PlaNYC was to be "a vision for the kind of city we wanted to become, and to bequeath that to the next generation."
- **Ambitious.** "The mayor felt that it was our responsibility to take on the tough challenges today, rather than kick them down the road," he said.
- **Achievable.** "Everything we proposed in the plan – and there are 127 separate initiatives — had to be completely achievable," Mr. Doctoroff said. He praised a 1969 master plan for the city as "a spectacular, clarion call to urbanism, density, embracing cities for their unique strengths," but added, "Ultimately almost nothing in it that was proposed ever happened." For PlaNYC, he said: "We vowed not to make a single proposal that we couldn't identify the source of funds for our implement. This was to be a living plan that would begin implementation right after it was announced."
- **Accessible.** "With PlaNYC, this was not born as a full-fledged plan," he said. "We had a concept, but in order for the entire city to to embrace it, the public needed to feel like it had a stake in it, that it was engaged — that if you wanted them to buy in, you had to ask them first."
- **Accountable.** "We demanded of ourselves that our progress be publicly tracked."

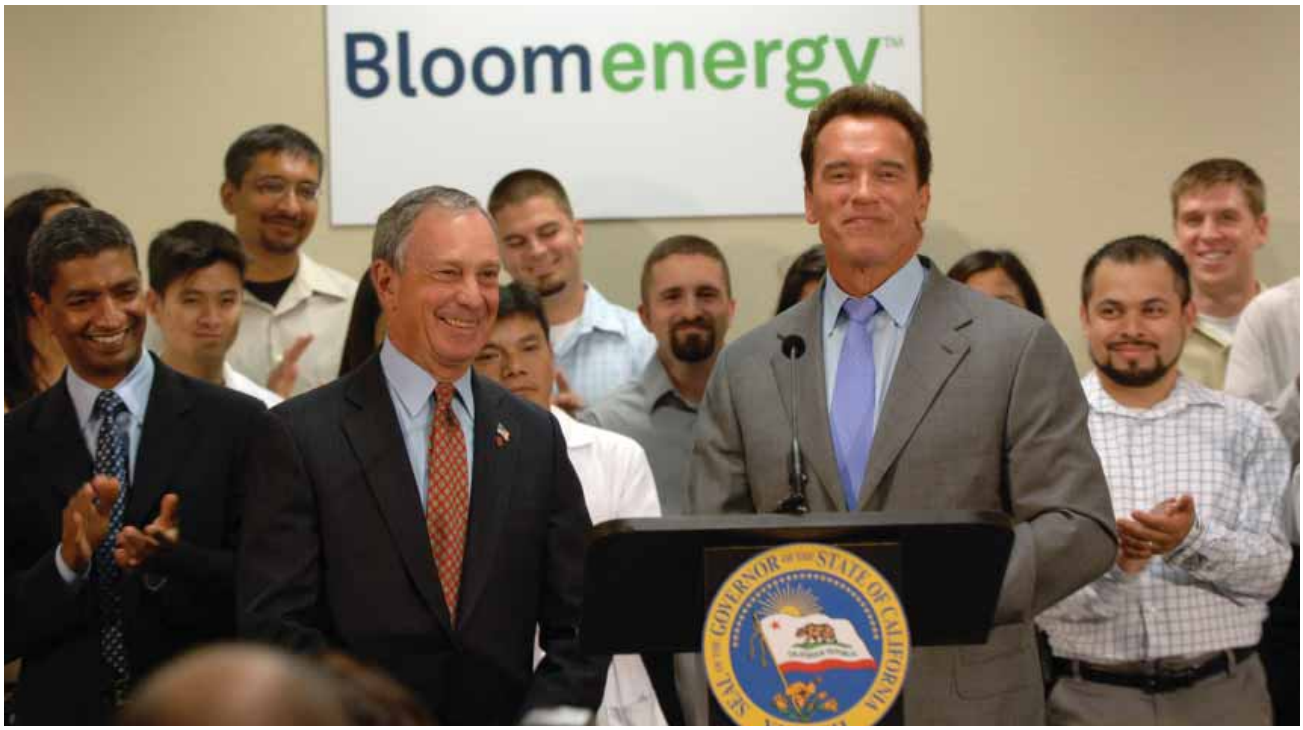
"PlaNYC has been a success because of the innovative and motivated staff from more than 20 City agencies who are determined to achieve the plan's goals. In developing the plan, we asked the tough questions, conducted a thorough analysis of the issues affecting the long-term health of the city, and considered all possible solutions. To achieve our overarching mission of reducing greenhouse gas emissions by 30 percent, we set ambitious but achievable goals - and since then, we have made real progress toward creating a greener, greater City for all New Yorkers, and for generations to come," said Mayor Bloomberg.

From Standalone Efforts to an Overarching Strategic Plan

During the first term of the Bloomberg Administration, a number of factors led the City to begin thinking comprehensively about land use, infrastructure issues, the environment, climate change, and ultimately sustainability. Leading up to the development of PlaNYC, the City had implemented a number of sustainability-related policies and programs such as rezonings, energy efficiency and conservation measures, and affordable housing developments. However, "the overlap and synergies of these efforts were never fully recognized or coordinated," said Angela Sung, Deputy Chief of Staff for the Deputy Mayor of Economic Development and Rebuilding. Through the Mayor's leadership and vision, City policymakers and agency directors ultimately determined that in order to grow in a sustainable manner, all of these efforts would need to be managed under an overarching strategy.

The first major impetus for the strategic land use plan was the pro-growth agenda implemented during the first term of the Bloomberg Administration, including a number of bold redevelopment plans and major rezonings designed to create jobs and increase the City's tax base. The impacts of these individual projects were assessed following the City's environmental impact process. However, no one comprehensively studied the cumulative impacts of this growth on the City's 100-year-old infrastructure and environment nor did the City

[1]Joe Salvo, Personal interview, July 17, 2008.



NYC MAYOR'S OFFICE

Mayor Bloomberg announces the formation of the Office of Long-Term Planning and Sustainability at an event with California Governor Arnold Schwarzenegger.

have an overarching land use strategy guiding these major land use decisions. To compound this need for comprehensive planning, for a number of years, the Department of City Planning had been forecasting that the City's population would continue to grow based on the growth trends over the past twenty-five years[1].

To complement the City's pro-density land use policies, individual city agencies had a history of implementing energy efficiency, waste reduction, and transportation improvements to reduce operating costs, but none of these initiatives were ever centrally coordinated nor were their environmental benefits measured. Moreover, the City had never bundled or marketed these initiatives as part of an overarching environmental agenda, though it had a record of passing progressive environmental legislation. The City had also never made the connection on a citywide basis between these energy and environmental initiatives, infrastructure investments, economic development, and land use.

Starting in 2004, a number of initiatives within City government attempted to address some sustainability issues more holistically, which helped to lay the foundation for PlaNYC. The first effort in this regard was the City's energy policy taskforce, which developed a report in 2004 that predicted energy demand would outpace energy supply within the next ten years, and assessed the high costs, difficulty siting and lack of space for building new power plants. This study crystallized the key issues facing the city's energy infrastructure, however the recommendations in the plan were fairly vague and did not include specific implementation measures for the City due to the consensus-based nature of the Task Force which included the City, utilities, building trades, and environmental groups.

Shortly after, City agency staff formed an interagency sustainability taskforce in late 2004, which developed an internal white paper on improving the sustainability of the City. The original goal for this taskforce was to develop an overarching sustainability plan, however "the group didn't have sufficient senior level buy-in or staff resources to create an actionable plan," said Laurie Kerr, OLTPS Senior Policy Advisor and former taskforce member. As a result, this plan was never finalized or published but it did contain many informative recommendations that were further evaluated and then incorporated into PlaNYC.

During this time in 2004, key agency staff members and environmental advocates working on land use planning, transportation, energy, and environmental issues recognized the need to tie these multiple planning processes together. But the push to move this forward did not begin until summer 2005. Led by the Deputy Mayor's Office, City agency staff analyzed citywide land-use and infrastructure issues comprehensively – for the first time in decades – in preparation for the 2012 Olympics bid. Following this process, Doctoroff and his staff realized that further in-depth land-use and infrastructure planning was necessary to utilize the City's resources more efficiently and to prepare for the expected population growth.

Initially, the City set out to develop a strategic land use plan, but as the Mayor and his staff realized that sustainability was the common theme that tied everything together, the plan evolved into a sustainability plan. After more than two years of effort and collaboration by 20 City agencies and hundreds of City staff members, in 2007 New York City unveiled PlaNYC, its comprehensive long-term sustainability plan for 2030.

This case study will illustrate how the nation's largest city developed its comprehensive sustainability plan. It will outline the planning process the City followed and will address the obstacles the City overcame to develop PlaNYC.

The Role of Population Growth and the Scale of the Challenge

Population growth was one of the main catalysts for the creation of PlaNYC. Over the past century, New York City has served as a destination for immigrants from around the world. The City's population grew steadily over the first half of the 20th century and much of the City's infrastructure was built during that time. In the second half of the century, New York City, like urban centers across the country, suffered the impacts of suburbanization and experienced dramatic population loss and inner-city decline. The City's population reached a peak in the 1970's and then shrank by almost a million people by 1980. Families fled to the suburbs to enjoy the safer streets, single family homes, and better schools. Due to the decreased tax base and economic pressures in the 1970's, the City was forced to cut back on essential services and neared bankruptcy in 1975. Infrastructure fell into a state of disrepair and the City became a more dangerous and less desirable place to live.

Data Categories to Illustrate the City's Challenges

Energy
- Current capacity and projected increase in demand of energy
- Efficiency and age of existing power plants

Climate
- Municipal and community-wide greenhouse gas emissions
- Historic Temperature graphs in Central Park
- Maps of areas vulnerable to flooding in 2006 and 2050
- Number of New Yorkers living within the FEMA 100 year flood zone
- Urban Heat Island affect data illustrating correlation to temperature and land use

Transportation
- Current and projected capacity of transit lines
- Commuting times
- Economic impacts of traffic/congestion
- State of repair of transit lines

Air
- Compliance with EPA standards for air pollutants
- Sources of various air pollutants
- Asthma hospitalization rates by borough

Water
- Capacity and projected demand of water supply
- Stormwater and Combined Sewage Overflow statistics
- Ability to access the City's waterways for recreational uses
- Quality of wetlands

Land
- Access to and quality of recreational waterways
- Available land for development
- Number of brownfields
- Canopy cover; distances to parks and playgrounds

Aggressiveness and Flexibility in Project Timeline

The timeline for developing and releasing the plan changed a number of times throughout the planning process as the scope of the plan evolved from a strategic land use plan to a sustainability plan. However, throughout the process the Deputy Mayor for Economic Development instilled a sense of urgency to release the plan. According to the Deputy Mayor's former Chief of Staff, Jim Whelan, they wanted to release the plan with enough time to begin implementation with enough time left in the Mayor's second term.

When work initially began on the Strategic Land Use Plan in summer 2005, the Deputy Mayor thought they could release a plan in early 2006. However, once it was decided to create the Office of Long-Term Planning and Sustainability and broaden the scope of the plan in the spring of 2006, the City aimed to release the plan at the end of 2006. As the scope of the plan was reassessed after OLTPS was formed, they realized the level of public outreach that was required and they decided to follow a two-step process by releasing the goals first and then the plan. "In retrospect it was a really brilliant stroke and I think going into it we thought it was smart, but I don't think we realized just how valuable it would have become. It allowed us to … soften the ground by talking about the future," said Rit Aggarwala, Director of OLTPS.

Having an aggressive timeline helped to advance the analysis and policy recommendations, but allowing for some flexibility in the timeline enabled the City to launch a comprehensive public outreach process and to analyze the issues and package the recommendations in a cohesive manner. Releasing the plan with two years remaining in the Mayor's term helped to ensure the longevity of the plan by providing enough time for implementation to begin on all the initiatives.

Since the 1980's, the city has been experiencing a revival and has reinvested in key services and infrastructure and the quality of life has improved dramatically. The city has not only hit its population peak from the 1970's, it has surpassed it and is poised to continue to grow. As the population has increased, so has the tax base, which helped improve the quality of life in the City dramatically. Crime has steadily decreased since the 1980's, and in 2005 New York City was named the safest big city in America. The City has diversified its economy and has invested in improving the quality of its schools and open space; as a result more people have stayed in New York instead of choosing to move their families to the suburbs. With this growth comes challenges though – the capacity of the City's infrastructure can barely handle the current population let alone an additional million people. "The scale of this challenge was unprecedented in the U.S., since no other major industrial city in the country has grown to exceed its population peaks from the pre-suburbanization time," said Sandy Hornick, Director of Strategic Planning for New York City's Department of City Planning.

Strong economic growth, projected additional population growth and a desire to continue to improve quality of life for New Yorkers led City planners and policymakers to decide that they needed a major initiative to plan for the long-term growth of the city and to ensure that the growth happens in a sustainable manner.

Assessing the Challenge

The first step in the planning process was to assess the scope of the challenge. In summer 2005, Doctoroff and his staff began take a closer look at the impacts of the forecasted population growth on the City's essential infrastructure services. The Deputy Mayor's Office met with each of the major development and infrastructure agencies to listen to their perspectives on the key challenges facing the City. They posed the following questions:

- How will population growth impact the City's infrastructure?
- How can growth be proactively addressed so it benefits the City now?

They met with 13 agencies, which identified the following issues:

- The Department of City Planning identified the need for a strategic land-use and infrastructure plan to prepare for a growing population, given the constrained land and infrastructure capacity in the City.

- The Fire and Police departments both stressed mobility as a key issue, noting that further population growth would result in additional traffic, which could increase response times in emergency situations.
- The Department of Transportation identified major budget shortfalls to bring the City's aging roads, bridges, and rails up to a state of good repair, and was concerned that additional growth would only impede its ability to improve the City's transportation infrastructure.
- The Economic Development Corporation predicted that demand for energy would outpace energy supply in the near term. The energy infrastructure was old and inefficient, and prices were especially high, all of which would impact the City's ability to attract and retain businesses.
- The City's water supply network was built over a century ago and was in need of major repairs, as forecasted by the Department of Environmental Protection. In addition, the City's wastewater treatment facilities frequently had overflow incidents during storms, polluting the City's waterways, which would only be exacerbated by a growing population.
- The Department of Parks identified two major concerns: the lack of open space for the current and growing population and the declining tree canopy cover.
- The City's lack of available land for new housing development, coupled with high housing costs were identified by the Department of Housing and Preservation and other agencies as major issues and the number-one reason people leave New York City.

Mayoral Support

Support from the Mayor and top Administration officials is one of the key success factors of PlaNYC. It helped to establish the plan as a top priority within City government and demonstrated to the public that this would not be a plan that sits on the shelf.

The Mayor set a high standard for analyzing the issues and developing recommendations for the problems defined in PlaNYC. The Mayor and Deputy Mayor wanted to avoid "pet projects" that were not economically viable or did not address the central challenges defined in the plan. The Mayor wanted the team working on PlaNYC to demonstrate the return on investment of the initiatives and to set realistic goals that would address the key challenges defined in the plan. As a result, the team framed the planning process around the central problem: how do we accommodate another million people and grow in a sustainable manner? This approach created a problem-solving environment in which City agencies were encouraged to think creatively and to analyze the costs and benefits of a variety of solutions before recommending a preferred path forward. Further, the Mayor declared any idea open to study, not just those he initially liked. This, combined with rigorous analysis, led him to support congestion pricing, which he was initially skeptical about. The thorough analysis of the impacts and implementation logistics provided the Mayor with the information he needed to support the proposal.

Following the initial round of information gathering, the Deputy Mayor identified the need to coordinate land-use planning and infrastructure investments citywide and to plan for population growth comprehensively[2]. In late summer 2005, the Deputy Mayor decided to develop a Strategic Land Use Plan and to have each agency assess the impacts of population growth on its operations. "Some of the agencies were excited and ready to participate in the strategic land use plan. Whereas, others were more hesitant to follow the mandate and were more focused on their day-to-day operations than long-term planning," said Joe Chan, former Policy Advisor for the Deputy Mayor who was leading the process to develop the Strategic Land Use Plan. The Deputy Mayor's Office had to work with the reluctant agencies and encourage them to strike a balance between their current operations and the need for long-term strategic planning.

The Deputy Mayor also asked each City agency to research best practices and implementation challenges, using the Best Practices Template in the Appendix. In this early stage, Doctoroff and his staff were unsure of the scope and audience of the final work product – if the document would be an internal white paper or a public document. They knew that they need more information to fully understand the scope of the challenge and to identify measures to address the challenge.

[2] Angela Sung, Personal interview, July 16th, 2008.

Estimating the Impacts

The Deputy Mayor charged the Department of City Planning with developing a detailed population projection to forecast the demographics of the City's growing population over the next 25 years. The agency hired a population projection consultant and received assistance from the New York State Demographer, the State Data Center Program, and the Federal State Cooperative Program of Population Estimates. They analyzed the three components of population change: fertility, mortality, and migration rates, and then developed projections for each age group for the entire City and for each borough. The population projection confirmed the hypothesis of City demographers that the city would grow by another million people to a total of nine million by 2030. However, the demographers were surprised to find that the growth was in part due to the population living longer and thereby increasing the elderly population and also due to more people staying or moving back into the city. The original concern that the City's school system would not be able to handle a dramatic growth in school age children turned out to be overblown: the school-age population was forecasted to remain largely the same.

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Population growth was the framework for assessing the City's long-term development. Based on the initial concerns previously mentioned, each agency developed a detailed analysis of the impacts of population growth on its respective operations and services, and also identified opportunities to improve the efficiency of its operations. The analysis spanned the topics of housing, roads, parks, water, energy, sewers, sanitation, energy, and mass transit. Each agency assessed the challenges and potential mitigation strategies, and created a summary of each of the issues and the associated best practices, metrics, and indicators. In the spirit of the Mayor's approach to "do more with less," Doctoroff asked each agency to identify opportunities to increase efficiencies within their operations. Agencies were encouraged to seek input from all levels of staff, which allowed junior staff the opportunity to share their thoughts while senior staff coordinated the analysis and finalized the recommendations.

At the close of this initial five month period of citywide analysis, the Deputy Mayor organized an interagency offsite meeting in December 2005. This meeting included all commissioners and senior staff in the infrastructure and operational agencies. Each agency presented its findings and possible solutions and began to brainstorm and prioritize steps to accommodate the predicted growth.

It became clear at this meeting that the City was already taking action to improve its infrastructure and environment, but these initiatives were not packaged into an overarching framework or strategy. The agency commissioners also recognized a number of opportunities to advance their goals and continue to improve the environment and infrastructure of the city. Furthermore, they realized that many of the issues presented in the meeting were interrelated and crossed agency jurisdictional boundaries and in order to deal with the issues holistically, they would need to implement distributed rather than typical centralized solutions. For example, they recognized that to effectively manage stormwater they didn't necessarily need to expand the City's existing wastewater treatment facilities; rather they could focus on capturing the water at the source – a solution that would require implementation by a number of City agencies.

Establishing the Mayor's Office of Long-Term Planning and Sustainability

The beginning of 2006 marked a transition period for the planning process: the City formed a new mayoral office to manage the development of the plan, the scope of the plan evolved, and the need for a participatory planning process emerged.

In early 2006 it became clear that the Strategic Land Use Plan was a much more ambitious and complex effort than originally anticipated, recalled Joe Chan, former Policy Advisor to the Deputy Mayor for Economic Development and Rebuilding. Doctoroff had two policy advisors coordinating the planning process in addition to their other responsibilities, and they were not able to dedicate a sufficient amount of time to the plan. Doctoroff also felt strongly that in order to finish the planning process and begin implementation, he needed someone whose sole responsibility was to shepherd the development of the plan and manage its implementation.

To fill this need, the Mayor created a new mayoral office in the spring of 2006 charged with developing and implementing the plan. The new Mayor's Office of Long-Term Planning and Sustainability (referred to as OLTPS), was created within the Mayor's Office of Operations which is responsible for performance reporting and special mayoral initiatives. The Mayor's Office of Operations was being reorganized following the Mayor's reelection in 2006 and it made sense to include the Office of Long-Term Planning within this department that would oversee both short-term and long-term performance management and reporting.

"The Mayor and Deputy Mayor wanted someone who would wake up every morning thinking only about this plan," said Sung. And indeed, the newly hired director did just that; "Rit Aggarwala had a laser-like focus to get the plan done," commented Bob Yaro, President of the Regional Plan Association and Sustainability Advisory Board member. Doctoroff hired a director for the new office in June 2006 and between July and November 2006, he added three generalist policy analysts and three senior policy advisors with experience in sustain-

Understanding the City's Greenhouse Gas Emissions Sources

Developing a greenhouse gas emissions inventory for New York City was not an easy task, especially for the City government operations. With 60 agencies, 350,000 employees, a $60 billion budget and approximately 4,000 buildings and 25,000 vehicles, OLTPS staff member responsible for the inventory had a lot of data to collect. In addition to including the Scope 1 and Scope 2 (direct and indirect) emissions sources, OLTPS also chose to include taxis, for-hire cars, and school buses.

New York City created its first greenhouse gas emissions inventory for its government operations in 2002, for the baseline year 1995. However, the inventory report was never finalized or publicly released. The City's Department of Environmental Protection updated the inventory in 2003 and 2004, but it was not until after OLTPS of Long-Term Planning and Sustainability was formed that the City fully realized the necessity of the inventory for establishing a baseline and measuring progress. In addition, the Mayor placed a high priority on performance metrics and recognized the need for a baseline inventory of greenhouse gas emissions.

The newly formed Mayor's Office of Long-Term Planning and Sustainability set to work on updating the government operations inventory and developing the citywide inventory in the fall of 2006. It took about six months for the senior policy advisor to update the government inventory and develop the citywide inventory due to the magnitude of the City's operations. The senior policy advisor estimates that he spent approximately 25% of his time on the community inventory and 75% on the government operations inventory.

For more information on New York City's emissions data, go to http://www.nyc.gov/html/planyc2030/html/ emissions/emissions_ourdata.shtml.

Sustainability was the common theme that would tie all of the issues and initiatives together.

ability related topics including energy, green building, transportation, and land use planning. The three senior policy advisors were responsible for specific chapters of the plan and three policy analysts supported data analysis and plan development.

The Mayor and Deputy Mayor recognized that in order for this new mayoral office to be successful, needed guidance and oversight from someone experienced with the bureaucracy of city government, so they created the office within the Office of Operations. "The Director of Operations, Jeff Kay, was instrumental in helping us navigate the City's myriad of agencies and to develop support and buy-in from the agency commissioners," said Rit Aggarwala. Since the City hadn't undertaken such a comprehensive planning initiative in recent history, OLTPS needed the support and leadership of someone with credibility in City government to nudge the City agencies to fully engage in the planning process.

Although OLTPS was created in June 2006, it was not publicly announced until September 21, 2006. Doctoroff had the rule that "we weren't going to go around giving speeches until we had something to say," said Rit Aggarwala, Director of OLTPS. This gave him time to build his team, develop a work plan, and reconsider the scope and approach to the planning process.

Expert Advice

In September 2006, when the Mayor announced the formation of OLTPS and the Sustainability Advisory Board, the Mayor also announced a formal working relationship with the Earth Institute at Columbia University in New York City. The Earth Institute is one of the premier academic institutes working on climate change issues; it was interested in being involved in such a comprehensive plan dealing with climate change issues at the local level. Professors from Columbia helped OLTPS gather data regarding the risks of climate change and the specific impacts of transportation and industrial businesses on local air quality and asthma rates.

In addition to working with local universities and research institutions, OLTPS brought in consultants to help with specific pieces of the plan for which they did not have sufficient expertise to perform the required analyses. A consultant was hired to perform a detailed analysis of energy supply and demand issues, since OLTPS wanted an additional level of rigor than the initial analysis performed internally. The City hired a transportation consultant to help with data analysis and modeling for the transportation section of the plan, since this was such a major portion of the plan and the City didn't have the expertise in modeling. Using consultants with international reputations helped to build credibility with the Sustainability Advisory Board and with the public, and helped to ensure that all issues were being analyzed with sufficient rigor.

Defining the Scope and Process

Once the funding was in place for the new office, Doctoroff asked the various agencies to wrap up their research and present their analyses and recommendations at another interagency meeting on June 30, 2006. This meeting marked the handover from Doctoroff's immediate office to OLTPS. The Deputy Mayor's Office would continue to stay closely involved in the planning process, but at this point the newly hired director took ownership of the plan.

At the interagency meeting, the agency commissioners all clearly defined the impacts posed by population growth and most of them had specific ideas for the measures needed to address the issues. Thus, the new director was not starting with a clean slate; rather, an extensive amount of analysis had already gone into the planning process. However, the handover did provide the director with the opportunity to revisit the scope and purpose of the strategic land use plan and to rethink how the issues were being framed to the public. Of primary concern was the need to make the argument to the public why some major infrastructure investments would be necessary.

The idea of sustainability had been discussed during the initial stages of the planning process, but it was not until OLTPS was formed that they fully realized its role: **Sustainability was the common theme that would tie all of the issues and initiatives together.**

OLTPS decided to expand the scope of the plan to explicitly include measures to address air quality, water quality, and climate change, since these topics were crosscutting themes that seemed integral to a sustainability plan. These issues had been peripherally discussed in the early planning stages, but since they did not fall within the purview of a specific agency they had not been fully addressed. Staff also considered including waste, education facilities, and health facilities in the plan, but omitted these since the City had recently released existing plans and initiatives in these areas. (In the case of education facilities, the population of school-age children was not expected to grow.) Since sustainability could encompass a wide variety of topics, they decided to focus on issues related to the physical environment of the City to keep the plan manageable in scope and implementable by City agencies. "By not following a 'kitchen sink' approach to sustainability," the City was able to define a scope that was implementable, remarked Ester Fuchs, Sustainability Advisory Board member and Columbia University Professor of International and Public Affairs and Political Science.

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Deputy Mayor Dan Doctoroff and Peggy Shepard of WE ACT at a Sustainability Advisory Board meeting.

OLTPS also realized that climate change was a cross-cutting theme throughout the plan and needed to be explicitly addressed. In order to understand the sources of the city's greenhouse gas emissions, OLTPS immediately started to update and complete the City's government operations greenhouse gas emissions inventory, which had been a work in progress for many years but was never finalized. OLTPS had to start from scratch to develop a citywide greenhouse gas inventory to have baselines for citywide initiatives, although they had a good idea that buildings would account for a much larger share of the City's emissions than most other cities because of the density of New York City.

As OLTPS was reassessing the scope of the plan, they realized that the plan would require broad public support in order to be implemented. To facilitate this process, the Director of OLTPS decided to hire a Senior Policy Advisor to coordinate the outreach process. "We knew we needed a political person and someone who could development relationships, organize people, and form a coalition to support the plan," said Jeff Kay, Director of the Mayor's Office of Operations. In fact, Fuchs credited the City's broad public outreach approach as one of the primary reasons for the success of PlaNYC.

Forming an Advisory Board

In order to build public support for the plan from a diversity of stakeholders and to leverage local expertise on sustainability issues, OLTPS sought guidance and advice from a group of outside experts. Right after OLTPS was formed and the director was hired in June 2006, they set about establishing the advisory board. The aim of the board was to include a group of local and national experts, who could act as a sounding board for strategies being considered for the plan. However, the advisory board did more than just provide advice – they also contributed analytical and research support and helped the City analyze and select the initiatives for the plan.

During the Bloomberg administration, the City formed a number of task forces for major interagency initiatives. In keeping with this approach, OLTPS sought a group of experts with best practices knowledge in various planning areas to advise the office and provide feedback on possible strategies.

Recruiting Board Members

Aggarwala met individually with a number of potential candidates to listen to their concerns and priorities for the sustainable development of the City. OLTPS wanted to form a diverse advisory board, but also keep it small.

To create a board with a cross section of expertise from both local and national organizations and a variety of viewpoints, OLTPS selected members with backgrounds in the following areas: environmental justice, green buildings, environmental policy, real estate, business, labor, energy, and urban planning, along with local elected officials. The board consisted of the "right structural mix of stakeholders" and represented a broad range of interests, said Fuchs. OLTPS also strategically included representatives from the business and real estate community, because they recognized that the City "needs their resources to implement the plan," said Kathy Wylde, advisory board member and President and CEO for the Partnership for New York City, which represents business interests in the city.

In order to ensure the board was comprised of the best people for the job, OLTPS did not select people for political reasons. In fact, they did not hesitate to appoint people who had disagreed with the Bloomberg Administration in the past. The Mayor ultimately asked 17 people to join the board, which was officially called the Mayor's Sustainability Advisory Board. This title communicated to the public and to the board members the stature and importance of the committee. The Mayor publicly announced both the Mayor's Office of Long-Term Planning and Sustainability and the Sustainability Advisory Board on September 21, 2006.

Role of the Board

The role of the Sustainability Advisory Board was to provide advice and ideas to OLTPS on potential content for the plan but not to author the plan[3]. The board was not intended to be consensus-based, and it was made clear from the first meeting that they would hold an advisory role to OLTPS staff, and that OLTPS had the ultimate decision-making authority on the content of the plan. The board helped to develop the goals, acted as a critical sounding board for initiatives being considered for the plan, and provided a great deal of support in analyzing various strategies for achieving the goals.

Logistics of the Board Meetings

Leading up to the first board meeting, OLTPS perceived a sense of uncertainty and distrust on the part of the board members. They recognized that it was critical to build trust and confidence in the process with the board members. To do so, OLTPS strategically used a third party facilitator to help develop the presentations and run the initial board meetings. The unbiased third party helped to build consensus on the issues between

25% by 2030?

The overarching goal of PlaNYC is to reduce greenhouse gas emissions 30 percent by 2030. The process to develop this target involved an analysis of the emissions reduction potential of various strategies, such as transit oriented development, citywide building retrofits, and clean energy, along with researching targets of other large cities around the world. OLTPS and the Sustainabiltiy Advisory Board agreed that the target should be both aggressive but achievable – not too ambitious or unrealistic, to ensure that it would actually be implemented. To ensure that the target would be achievable, OLTPS took a more conservative approach in their modeling and based their estimates on the efficiencies of current technologies, instead of relying on future technological improvements.

OLTPS and the Sustainability Advisory Board debated the timeframe and percent reduction, considering options such as 25% by 2030 or 40% by 2040. Ultimately, they decided on a timeframe that was far enough in the future to allow for the long-term transit-oriented developments to take place but soon enough to prompt immediate action.

OLTPS went through this analysis for both the community-wide and government operations target, and decided to set a more aggressive target for the City government, to reduce emissions 30% by 2017. The City's Energy Conservation Steering Committee developed its Long-Term Plan to Reduce Energy Consumption and Greenhouse Gas Emissions of Municipal Buildings and Operations in July 2008, after PlaNYC was released.

[3] Ariella Rosenberg Maron, Personal interview, August 20th, 2008.

OLTPS and the advisory board and set the stage for the development of a close working relationship between the City and the board[4].

The Sustainability Advisory Board held its first meeting on September 27, which the Mayor attended. Doctoroff and OLTPS staff attended all of the subsequent board meetings, which took place every three weeks. The initial meetings were run by a third party, which helped to create an unbiased confidential forum for discussion. OLTPS worked with a consulting firm on a pro-bono basis at first who facilitated the board meetings and assisted in data analysis. To ensure each member took this task seriously and felt comfortable participating openly, the firm met with each board member individually and confidentially prior to board's first meeting to hear their concerns and ideas about the process and set a tone for the months to come. At the first meeting consultants summarized the feedback from the individual members and facilitated an open discussion among the board members addressing the concerns raised in confidence. This helped to build a strong relationship between OLTPS and the board and ensured that all of the board members voices were heard. As OLTPS built trust with the board, OLTPS staff began to take on a greater facilitation role in the meetings and working groups.

To help control the flow of information and ensure there were no leaks to the press that could compromise the process, OLTPS never distributed any handouts during the meetings. Despite the potential for board members to disagree with some of the initiatives in the plan or to publicly critique the plan, they all respected the confidentiality throughout the entire process. This became an essential asset to the planning process. The board members developed trust in the process and maintained confidentiality because they did not want to jeopardize the implementation of a plan they so strongly supported.[5]

Dividing up into Subcommittees

Following the initial board meetings, OLTPS formed seven working groups, charged with the following duties: reviewing the research and recommendations from the City agencies from the first phase of

Members of the Mayor's Sustainability Advisory Board

Elected officials:
- **Christine Quinn,** Speaker of the New York City Council
- **James F. Gennaro,** Council Member and Chair of the Committee on Environmental Protection

Business/real estate community/design:
- **Steven Spinola,** President, Real Estate Board of New York
- **Carlton Brown,** COO and Founder, Full Spectrum
- **Robert Fox,** Partner, Cook + Fox Architects
- **Elizabeth Girardi Schoen,** Senior Director of Environmental Affairs, Pfizer, Inc.
- **Kathryn Wylde,** President and CEO, Partnership for New York City
- **Daniel Tishman,** Chairman and CEO, Tishman Construction Corporation, Chair Natural Resources Defense Council

Environmental and Community Advocacy representatives:
- **Marcia Bystryn,** Executive Director, New York League of Conservation Voters
- **Peggy Sheppard,** Executive and Co-Founder, West Harlem Environmental Action Coalition (WE ACT)
- **Andrew Darrell,** Regional Director of NYC Office, Environmental Defense
- **Ashok Gupta,** Program Director of Air and Energy, Natural Resources Defense Council
- **Robert Yaro,** President, Regional Plan Association
- **Elizabeth Yeampierre,** Executive Director, UPROSE

Academic community:
- **Ester Fuchs,** Professor, Columbia University's School of International and Public Affairs

Philanthropic community:
- **Michael Northrop,** Program Director, Rockefeller Brothers Fund

Labor community:
- Ed Ott, Executive Director, NYC Central Labor Council

[4] Ariella Rosenberg Maron, Personal interview, August 20th, 2008.

[5] Wayne Barrett, "All Wet," Village Voice, March 13th, 2007.

the planning process, brainstorming new strategies and initiatives, and responding to the policy ideas and recommendations put forward by OLTPS and the City agencies. The topics for the working groups included:

1. Energy efficiency/green building
2. Energy supply and distribution
3. Transportation
4. Green infrastructure
5. Land use and brownfields
6. Waste management
7. Climate change adaptation

The working group meetings were facilitated by the staff of OLTPS and included staff from City agencies and the Sustainability Advisory Board. Whereas the full board meetings were reserved for higher level strategic discussions, the working group meetings focused on the details of the strategies being considered for the plan. Sustainability Advisory Board members were asked to attend the full board meetings, however they were able to send a representative from their staff to the working group meetings, since the working group required more intensive participation. Each board member was not assigned to a specific working group. Instead, they were given the option to participate in whichever meetings they chose, determining their own interest and expertise. This led to productive and well attended working group meetings.

In the weeks between the full board meetings, each of the seven working groups met once. Over the course of three months, between September and December 2006, more than 50 hours of the full advisory board and working group meetings took place. This intense level of effort helped to ensure that OLTPS had considered all options and was well prepared for the large-scale public outreach process that would last from December 2006 through March 2007.

Since the board represented a diversity of stakeholders, it provided OLTPS with an initial litmus test of the public's opinion on the policy recommendations that were being considered for the plan. The staff of OLTPS benefited from close collaboration with the group of experts on the advisory board. The board meetings provided a confidential forum to discuss policy issues that may not have been possible in a public meeting environment. Furthermore, the board members provided data to help define the key challenges in the city, shared best practices, and provided anecdotal and factual evidence to support the analysis and recommendations in the plan.

Branding the Plan

In fall 2006, OLTPS also began to work with a graphic designer and with the Mayor's communications staff to develop a concept for the final plan. The Deputy Mayor felt strongly that the plan should be written in a way that was easily understandable to all New Yorkers in tone and content. He wanted an attractive plan that not only included facts, figures, and specific initiatives, but would also inspire and motivate the community. To accomplish this, they decided to develop a brand for the plan. OLTPS met with Mayor's communications staff to come up with a name for the document and coined the term, "PlaNYC," and graphic designers developed a logo, design concept, and presentation template for all presentations and materials released from OLTPS. Data in the plan was categorized into three interrelated themes that summarized the challenges ahead: The City is getting bigger, the infrastructure is getting older, and the City's environment is at risk. These themes were coined, OpeNYC, MaintaiNYC and GreeNYC.

Defining the Challenges

OLTPS planned to begin the advisory board process by presenting facts upon which the diverse set of board members could agree, in order to set the stage for an informed fact-based discussion. The consultants and OLTPS synthesized the information gathered by the City agencies in the first phase of the process and supplemented their findings with additional supporting data.

The board members agreed that the City's aging infrastructure and fragile environment would be under pressure with continued population growth and that the City needed to take bold action immediately to avoid the impact of business as usual trends.

Defining the Goals

After OLTPS was formed, they decided that it was necessary to more clearly define the goals of the plan. They solicited ideas from the City agencies involved in the planning process and also from the advisory board members during their initial interviews. In addition, as the plans for the public outreach process were shaping up in the fall of 2006, they decided to use the announcement of the goals as the launch of the public outreach process. They goals would be used to frame the scope of the plan and to define the key issues and why they were important.

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Mayor Bloomberg releases the ten goals of PlaNYC to a full audience at the Queens Museum on December 12, 2006.

Based on these early conversations with the board members and the initial research performed by the City agencies, OLTPS and the consultants developed a draft of the goals and reviewed them with each board member individually. After incorporating feedback, OLTPS presented and updated the goals multiple times to perfect the wording and scope of each goal. In order to ensure that these aggressive goals were also achievable, OLTPS and the City agencies performed due diligence to analyze the ability of each potential initiative to achieve the goals, using today's technology. Although the greenhouse gas emissions inventory was not finalized, OLTPS had a set of estimates that were sufficient for planning. They knew that approximately 75% of citywide emissions would be from buildings, a percentage much higher then most American cities.

As part of the open space effort, the Department of Parks and Recreation originally had a goal to increase the tree canopy in New York City to 30% by 2030, following the City's greenhouse gas emissions reduction goal of 30% by 2030. 30 percent proved too big a goal for the tree canopy; the initiatives in PlaNYC would lead to something like 27 – 28% coverage. In addition, OLTPS wanted to reframe this goal into one that "would resonate more with the general public and have a clear public benefit for all New Yorkers," said Sung. The Department of Parks and Recreation reevaluated how the tree canopy goal would impact the open space in the city and used mapping software to determine how this translated into proximity to parks. They ultimately agreed on a goal to have all New Yorkers live within a 10-minute walk of a park and they included a specific initiative in the plan to plant one million trees, which would help to achieve the more technical goal to increase tree canopy.

For the water quality goal, the City was well aware that pollution in certain waterways prevented the public from accessing its waterways. Since the beginning of the Bloomberg Administration, the City had been working to

The Sustainability Advisory Board members agreed that the City's aging infrastructure and fragile environment would be under pressure with continued population growth and that the City needed to take bold action immediately to avoid the impact of business as usual trends.

redevelop its formerly industrial waterfront and to provide the public with more opportunities for accessing and enjoying the water. In addition, the City wanted to address the stormwater management capacity issues in the City's wastewater treatment system that occasionally caused combined sewage overflow incidents. The initial idea for a water quality goal was to reduce the number of combined sewage overflow incidents. However, since the public isn't generally familiar with combined sewage overflow incidents, the OLTPS opted to phrase the goal as "open 90% of our waterways for recreation by reducing water pollution and preserving our natural areas."

Cover of 10 goals brochure which was circulated in local newspapers when the goals were announced.

Input from the Public on the Goals and Challenges

As OLTPS was working on assessing the challenges and defining the goals, they knew that in addition to feedback from the Sustainability Advisory Board they needed input from the broader advocacy community. From November to December 2006, representatives from OLTPS met with approximately 50 key advocacy organizations – both supporters and potential adversaries – to listen to their ideas regarding environmental and infrastructure issues. Many of these organizations had sustainability issues on their agendas and offered many ideas and strategies they felt should be included in the plan. This outreach helped OLTPS to understand the high-priority concerns from the public and to ensure that the scope and goals of the plan would address those concerns. It also helped to build support from advocates and community leaders who are typically quoted in the press, and in turn minimize criticism of the planning process and the plan itself.

Announcing the Goals and the Outreach Process

To launch the outreach process, the Mayor publicly announced the ten sustainability goals on December 12, 2006 at a speech given at the Queens Museum of Art before hundreds of environmental and community leaders[6]. The Mayor's speech was followed by a panel discussion on climate and sustainability issues involving a number of distinguished New Yorkers. The panel was moderated by former news anchor Tom Brokaw and included leading environmental and urban planning advocates who at times had vocally disagreed with some of the administration's

[6] The City of New York. Office of the Mayor. "Mayor Bloomberg Delivers Sustainability Challenges and Goals for New York City Through 2030." Press Release. December 12, 2006.

policies. The announcement of the ten goals received a significant amount of media attention because of the aspirational nature of the goals, the clear commitment of the Mayor to improving the city's environment and infrastructure, and the broad outreach process that the City was undertaking. In addition, the announcement and subsequent debate demonstrated the Mayor's commitment to public dialogue about the major challenges facing the city.

With cooperation from local newspapers, the City also distributed 1.3 million copies of a pamphlet in English and Spanish that summarized the ten goals of PlaNYC and encourage the public to visit the PlaNYC website to submit their ideas. To drive traffic to the PlaNYC website, OLTPS asked advocacy organizations to use their e-mail lists to promote the website and encourage their supporters to submit ideas. "This large-scale multimedia kick-off of the public outreach process set the stage for three months of educating the public about sustainability and hearing their ideas about how to improve the environment and infrastructure of the city," said Amy Chester, former OLTPS Senior Policy Advisor.

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New York Immigrant Leaders outreach meeting at City Hall, during the public outreach process for PlaNYC.

Reaching Out to the Public

With only three years left in the Mayor's second term in office, OLTPS was concerned with releasing the plan as quickly as possible and making sure the public supported the plan so they could begin implementation immediately. The pressure imposed by term limits played a major role in shaping the outreach process; the plan could not be released as a draft plan. OLTPS wanted to make the hard decisions first and get started on the implementation immediately after the plan was released, instead of publishing the plan and having to spend a significant amount of time debating the options in public meetings.

To build public support, OLTPS launched a large-scale multi-pronged public outreach process, which surpassed any other outreach effort recently undertaken by the City. The public outreach process included a variety of different outlets for reaching the public – the interactive website, large town-hall style meetings, smaller stakeholder group meetings, and leveraging existing networks of community groups. This "balance of events" and approaches and utilization of existing networks worked well, said Fuchs.

Planning for the Outreach Process

Because OLTPS knew the plan would likely include controversial ideas, staff wanted to begin the dialogue about these issues early to pave the way for a smooth implementation. The purpose of the outreach process was to accomplish the following goals:

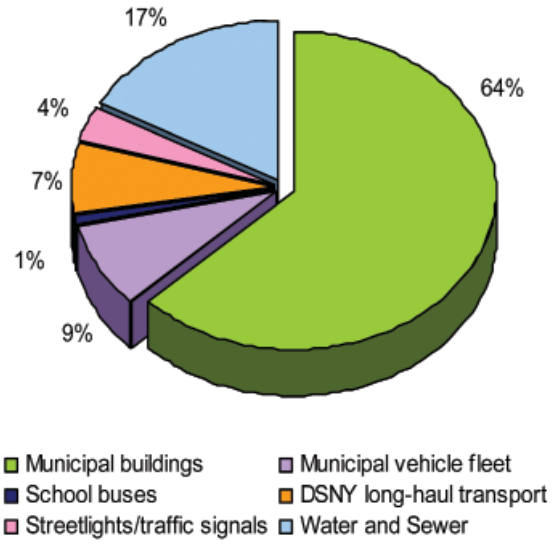
1. Solicit as many ideas as possible;
2. Ensure that the public felt included in the planning process with the hope that they would therefore support the plan once it was released;
3. Educate the public about the City's environmental and infrastructure challenges;
4. Use the planning process to incorporate feedback so the plan would not be a "draft" document but one that could be implemented immediately.[7]

OLTPS began by creating a list of organizations to invite to the outreach meetings. Using this exercise to think broadly about sustainability, they invited constituency groups not typically associated with environmental issues, such as organized labor, real estate, and business leaders. One challenge to this was that, in 2006, sustainability was not a term that the general public was familiar with, which made it difficult to excite some New Yorkers about the plan. Advocacy organizations and the public had historically been more concerned with issues in their own backyard rather than citywide issues, so some groups were not initially interested in engaging on the plan. As a result, one aspect of the outreach process involved defining what sustainability means to New York City and explaining how everything is interconnected – economic development, the environment, climate, and public health.

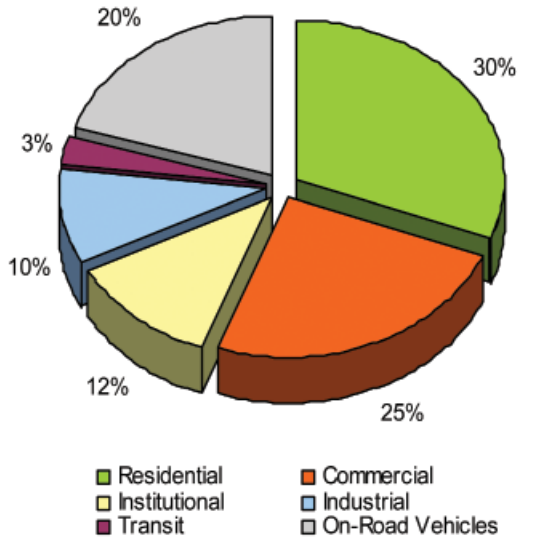
Staying "On-message"

To ensure a consistent message was presented publicly, OLTPS developed a standard roadshow presentation for the outreach meetings, which included background data to define the challenges and the rationale behind the ten goals. The presentation was a modification of the speech given by the Mayor at the Queens Museum and included the same information and a consistent look and feel as the goals pamphlet and the website. Similar to the first presentation to the Sustainability Advisory Board, the presentation focused on establishing facts and future challenges, which provided a platform for building agreement around the issues, instead of debating the merits of various initiatives, where there could be disagreement.

New York City Government CO_2e Emissions by Sector, FY 2006



New York Citywide CO_2e Emissions by Sector, 2005



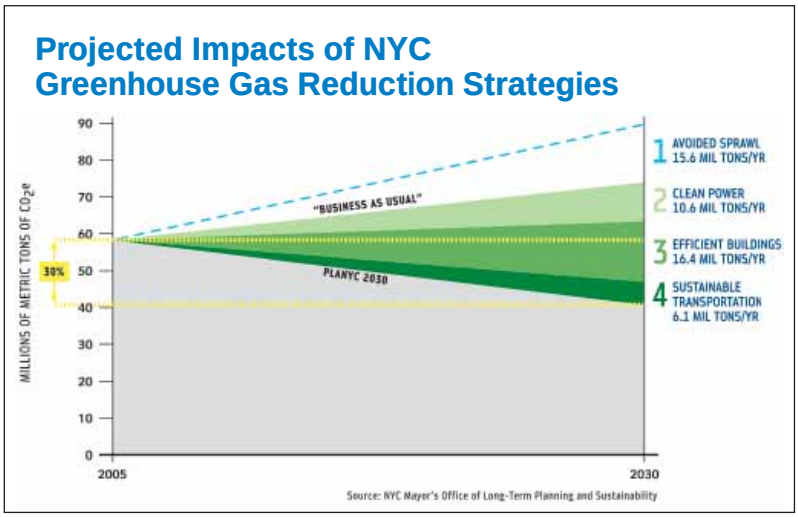
SOURCE: NYC MAYOR'S OFFICE OF LONG-TERM PLANNING AND SUSTAINABILITY

Multiple Approaches to Outreach

Between January and March of 2007, the City held 11 town hall meetings in the city's five boroughs, organized issue-based panel discussions, and presented the goals in the plan to constituency groups around the city. In total, OLTPS met with hundreds of organizations and received feedback from thousands of New Yorkers via

[7] Amy Chester, Personal interview, October 20th, 2008.

the town hall meetings and the PlaNYC website. OLTPS and the Deputy Mayor were eager to present the roadshow to as many constituency groups as possible, and were invited to meet with a range of groups including advocacy and community groups, nonprofit boards of directors, and the business community.



SOURCE: NYC MAYOR'S OFFICE OF LONG-TERM PLANNING AND SUSTAINABILITY

In situations where OLTPS felt that specific stakeholders needed special attention, they organized forums of their own. This included the immigrant community and groups with specific interests in energy and transportation policy as well as some of New York City's 59 neighborhood community boards. OLTPS met with many of the advocacy groups twice during the outreach process, first to listen to their ideas and then to check back several months later to hear more current thinking and test possible strategies. When the advocates asked the City to implement specific ideas, OLTPS sought their input on possible funding sources. This encouraged the advocates to think about the trade-offs and decisions that would have to be made. During the outreach meetings, OLTPS mentioned some of the strategies that they were leaning towards including, and others that did not seem feasible, in order to gauge the advocates' feedback on those strategies. The thinking of OLTPS and the Sustainability Advisory Board aligned well with that of many of the organizations they consulted, which suggested that the plan would have broad appeal.

At the 11 townhall meetings, OLTPS presented the roadshow and then asked the participants to break into groups to discuss their specific ideas to achieve each of the ten goals and then report back to the larger group. This provided a framework for the public to structure their input, which helped to keep the meetings focused on constructive.

Results of the Outreach Process

The outreach process helped OLTPS to understand the public's priorities and to educate the public about the need for action now to ensure the long-term sustainability of the City's infrastructure and environment. Although OLTPS had already considered the majority of the strategies that were discussed during the outreach process, hearing many of the same ideas from the public helped the office prioritize initiatives and reevaluate how to package the ideas. For instance, "green roofs" came up in many outreach sessions. The City was already considering green roofs as a potential stormwater management strategy, but had concerns over the cost-effectiveness compared to other roof treatments and wanted to analyze the options in more detail in a stormwater management plan. The public viewed green roofs as not only a stormwater management strategy but also a means of helping to green and beautify the city. To respond to the public's desire to promote green roofs, OLTPS created a separate initiative to provide tax incentives for green roofs, instead of postponing such an action until the stormwater management plan was completed.

OLTPS synthesized the feedback from the outreach meetings and posted it on the PlaNYC website, shared it with OLTPS staff, City agencies, and Sustainability Advisory Board. They summarized the feedback through statements such as, "the majority of the people are concerned about … ." They also quantified the feedback on various topics to create metrics on the public's opinion. All of the 11 public meetings were videotaped and replayed on NYC TV, a local channel that is broadcasted throughout the city.

Developing the Initiatives and Writing the Plan

In parallel to the public outreach process, OLTPS worked on analyzing potential initaitives for the plan in detail. OLTPS evaluated the greenhouse gas emissions reduction potential, environmental impacts, payback periods, and implementation challenges for a list of initiatives, before eventually settling on the 127 initaitives in the plan. As new ideas emerged from the outreach process, they incorproated that into their analysis and the public's prioirites that emerged from the outreach process helped OLTPS to prioirtze initiatives for the plan.

From High Level Strategies to 127 Initiatives

To develop the specific initiatives in the plan, OLTPS and the City agencies first reviewed all of the best practices identified in the first phase of the planning process and then researched any strategies that may have been overlooked. OLTPS used the working group meetings to brainstorm additional strategies, test policy ideas, and receive feedback in a confidential setting. For a number of initiatives being considered for the plan, the board members had already been studying those issues for a number of years. For example, the Partnership for New York City had studied the economic impacts of congestion and the Regional Planning Association had been analyzing land use and transportation issues in the city for years.

The Importance of Energy Efficiency in Existing Buildings

Recognizing that a large majority of the City's emissions come from energy used in buildings, the Mayor's Office determined that energy efficiency measures would be essential for the city to achieve its greenhouse gas reduction target. In addition, the Mayor's Office Senior Policy Advisor for Energy Efficiency also calculated that approximately 85 percent of the building stock in 2030 would be comprised of buildings that exist today. This illustrated to the Mayor's Office that measures dealing with new buildings would not be sufficient and that in order to conserve energy in buildings they would need to aggressively address existing buildings.

Sustainability Advisory Board working group participants were invited to bring new policy ideas to the table but were asked to support those ideas with a quantitative analysis and best practices research. The goal was for all ideas under consideration to be backed up by a strong supporting argument. For issues of particular concern, the working group members took it upon themselves to undertake or commission studies on the impacts, costs, and benefits of specific initiatives.

OLTPS assessed the cost implications, benefits, and emissions reductions potential of each initiative, along with the ability of the initiative to achieve the goals in the plan. (A checklist of the kinds of things that were assessed is in the Appendix.) OLTPS not only looked for "low-hanging fruit" strategies that had clear paybacks and would be more straightforward to implement, but also included sweeping initiatives that had the potential to dramatically reduce emissions.

They also summarized how each initiative would help to achieve the 30% reduction goal, and illustrated how the total reduction of 33.6 million metric tons from the forecasted business as usual total in 2030 would be achieved. This broke out into 10.6 million metric tons of clean power, 16.4 million metric tons in efficient buildings, and 6.1 million metric tons for sustainable transportation. In addition, OLTPS estimated the net impact of attracting an additional million people to New York City by 2030 and the sprawl that would be avoided elsewhere in the country by encouraging higher density development. Although avoided sprawl isn't typically included in a stabilization wedge, it helped to illustrate the benefits of dense urban development, and was not calculated as part of the 30% reduction target.

OLTPS grouped the initiatives by topic: land, water, transportation, energy, air quality, and climate change. Recognizing that one initiative could achieve multiple goals and belong in multiple chapters, they included a table at

NYC MAYOR'S OFFICE

Mayor Michael Bloomberg, Deputy Mayor Dan Doctoroff, and Rit Aggarwala testify in front of a State Senate committee on congestion pricing on June 8, 2007.

the end of the plan that summarizes which goals each initiative will help to achieve, as illustrated in Table 2. The majority of the initiatives also helped to achieve a reduction in greenhouse gas emissions.

To identify initaitives that would have the greatest potential to reduce emissions in each sector, OLTPS researched programs and policies implemented in other cities. OLTPS reviewed other best practice plans, such as Portland, Oregon's climate action plan and Santa Monica's sustainability plan to learn about what other leading cities had included in their plan. OLTPS incorporated Santa Monica's approach to sustainability indicators and transparent reporting into the recommended approach for monitoring and reporting progress. London's Better Buildings Partnership Program, designed to retrofit commercial buildings, inspired New York City's university challenge[8]. Similarly, the success of congestion pricing in London and Stockholm influenced New York City's strategy to fund transit improvments through tolling vehicles entering Manhattan.

To refine their analysis of the emissions reduction potential of each initiative, OLTPS used the greenhouse gas emissions inventory to estimate the impact of such initiatives in New York City. In order to ensure that the emissions reductions target could be achieved, OLTPS quantified the impacts of the various initiatives using today's technology instead of relying on future technology improvements to achieve the goals.

The City not only looked for "low-hanging fruit" strategies that had clear paybacks and would be more straightforward to implement, but they also included sweeping initiatives that had the potential to dramatically reduce emissions.

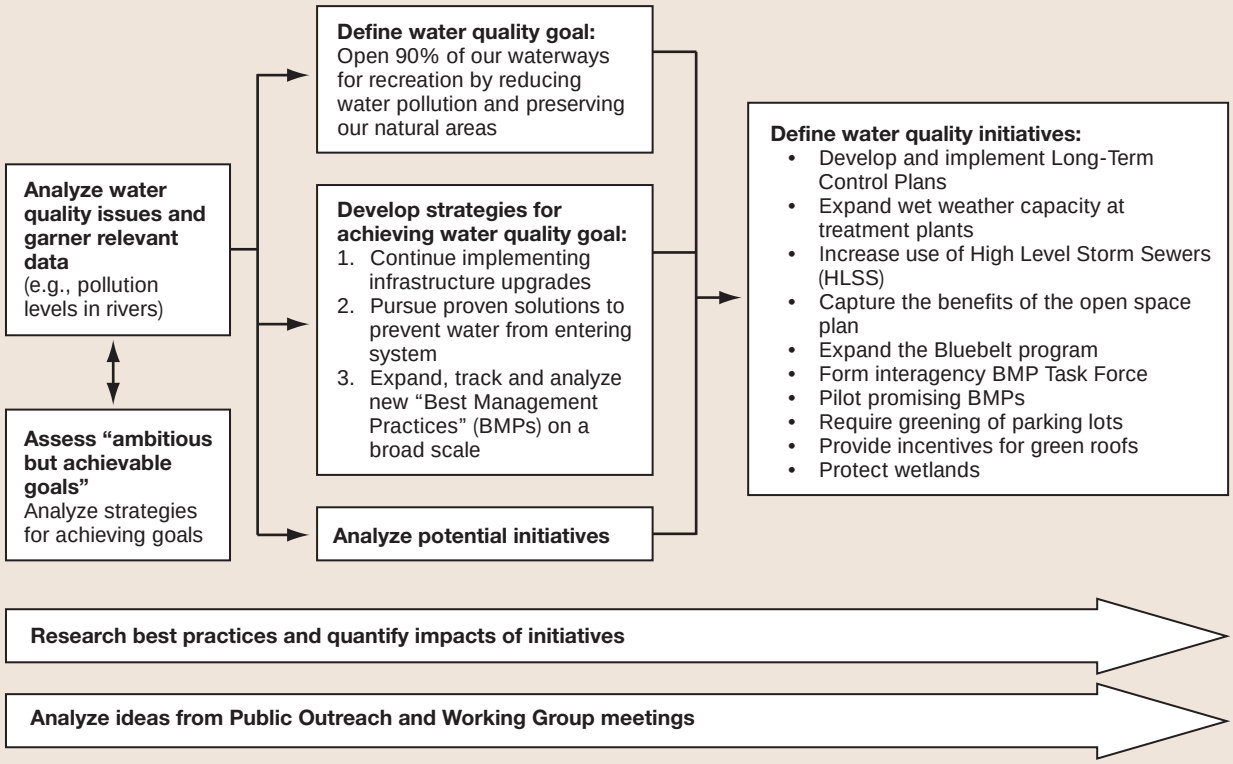
[8] Laurie Kerr, Personal interview, October 22, 2008.

As OLTPS continued to receive a large volume of new ideas through the outreach process, they decided that they would need to set a date for the plan's release and finalize the scope of the plan, and include initiatives with varying levels of specificity[9]. They operated under the principle that "the perfect is the enemy of the good," said Sung, which in practice meant that not every problem needed to be solved by this plan. PlaNYC could include some "plans to plan." Therefore, in cases where a significant amount of additional analysis was needed, or a new steering committee was needed to vet the ideas, OLTPS determined that the best approach would be to include initiatives in the plan that would set out a framework for future planning and analysis. Some examples are initiatives involving the creation of an interagency stormwater management plan and climate change adaptation task force. This approach illustrated that the initiatives in the plan can take many different forms.

Example: Developing the Water Quality Initiatives

The water quality chapter is used below as an example of the process OLTPS undertook to develop the specific initiatives in the plan and is illustrated in Figure 2.

Figure 2: Process for Developing Water Quality Initiatives



The process for developing the water quality initiatives, and all of the initiatives in PlaNYC, was an iterative process which involved analyzing the data, reviewing best practice strategies, defining the overarching goals, incorporating feedback from public outreach, and prioritizing initiatives for the plan. To begin the process, OLTPS, reviewed the issues and the best practices identified in the initial research and analysis phase of the strategic land use planning process. While developing the high level goal to "open up 90% of the city's waterways to recreation," OLTPS explored strategies and specific policies and programs to achieve that goal,

[9] Ariella Rosenberg Maron, personal interview, June 24th, 2008.

NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION

Protecting the city's watershed is one key initiative in PlaNYC to ensure a clean and sustainable water supply.

what they would cost, and that they were achievable. Before OLTPS and the Advisory Board were comfortable releasing the water quality goal, they have a good idea of the initiatives that would be needed to achieve that goal.

OLTPS focused on the best practices that would reduce pollution into the waterways and subsequently identified three overarching strategies:

- Continue implementing infrastructure upgrades
- Pursue proven solutions to prevent water from entering system
- Expand, track and analyze new "Best Management Practices" (BMPs) on a broad scale

In parallel to developing the strategies, OLTPS researched a wide variety of potential initiatives that could be used to implement these strategies. Some of the initiatives call for specific programs, such as protecting wetlands, whereas others acknowledge that further research and analysis is needed to identify measures that can be rolled out on a broad scale. Following the rigorous analysis process and incorporating feedback from the public outreach process, OLTPS settled on the following ten water quality initiatives for the plan:

1. Develop and implement Long-Term Control Plans
2. Expand wet weather capacity at treatment plants
3. Increase use of High Level Storm Sewers (HLSS)
4. Capture the benefits of the open space plan
5. Expand the Bluebelt program
6. Form interagency BMP Task Force
7. Pilot promising BMPs
8. Require greening of parking lots
9. Provide incentives for green roofs
10. Protect wetlands.

For each of the 127 initiatives in the plan, OLTPS defined the lead implementation agency, non-city action needed to progress, milestones for completion by the end of 2009 and 2015, capital and operating budget, and other funding sources needed. This information, along with a matrix illustrating how each initiative helps to achieve the ten goals, is provided in the Appendix of PlaNYC. This "roadmap for implementation" is essential for a sustainability plan to be actionable, said Fuchs. The implementation plan for the water quality strategies and ten associated initiatives is outlined in Table 1.

Table 1: Water Quality Strategies, Initiatives, and Sub-Initiatives

Strategy	Initiative	Sub-Initiative	Implementation Lead Agency	Non-City Action Needed to Progress
Continue implementing infrastructure upgrades	1. Develop and implement Long-Term Control Plans	Complete Long-Term Control Plans for all 14 New York City Watersheds, as required by law	DEP	
	2. Expand wet weather capacity at treatment plans	Reduce Combined Sewage Overflow (CSO) discharges by more than 185 mgd during rainstorms	DEP	
Pursue proven solutions to prevent water from entering system	3. Increase use of High Level Storm Sewers (HLSS)	Convert combined sewers into HLSS and integrate HLSS into major new developments as appropriate	DEP	
	4. Capture the benefits of our open space plan			
	5. Expand the Bluebelt program	Expand Bluebelt in Staten Island and other boroughs, where possible	DEP	
Expand, Track, and Analyze new Best Management Practices (BMPs) on a broad scale	6. Form interagency BMP Task Force	Make the reduction of CSP volumes and other environmental issues a priority for all relevant City agencies	DEP	Launch NYC BMP Inter-Agency Task Force
	7. Pilot promising BMPs	Introduce 20 cubic meters of ribbed mussel beds	DEP	
		Plant trees with improved pit designs	DEP/DPR	
		Create vegetated ditches (swales) along parkways	DEP/DOT	
	8. Require greening of parking lots	Modify the zoning resolution to include design guidelines for off-street parking lots for commercial and community facilities	DCP	
	9. Provide incentives for green roof	Encourage the installation of green roofs through a new incentive program	OLTPS/DOF	City Administrative Code amendment
	10. Protect wetlands	Assess the vulnerability of existing wetlands and identify additional policies to protect and manage them	DPR/DEP/ OLTPS	

Milestones for Completion by End of 2009	2015	NYC Funding (in $M, nominal) Capital (FY 08-17)	Operating (FY 08)	Other Funding sources
Submit Waterbody/Water-shed (WB/WS) Plans for 18 waterbodies NYS DECD, detailing strategies for CSP reduction	Integrate WB/WS plans into the 14 watershed specific Long-Term Control Plans (LTCPs) and submit draft citywide LTCP	—	—	
Continue construction	Complete upgrades to the 26th Ward and Jamaica WWTP (2015)	—	—	
Create standardized process to analyze proposed sites for	Continue to implement HLSS process	—	—	
		—	—	
Begin expanding Bluebelt to other parts of Staten Island	Create bluebelt strategies in Udalls' Cove and Brookville Boulevard West, Springfield Lake, and Baisley Pond	—	—	
Complete Comprehensive BMP plan and associated budget	Continue to implement BMPs citywide	—	—	
Complete pilot and plan for additional mollusk habitats	Continue to foster natural ecology of city waterways	—	—	
Complete pilot	Continue practices to improve the ability for tree pits to capture stormwater	—	—	
Complete pilot and identify additional appropriate locations	Continue practices to capture stormwater runoff from streets	—	—	
Complete ULURP process; zoning requirement in effect	Continue to look for ways to reduce the impacts of open parking lots	—	—	
Launch initiative	Reevaluate success of incentive	—	1.0	
Complete wetlands study and draft policy	Implement policy recommenda-tions	—	—	

The goals matrix in Table 2 provides a snapshot of how each initiative helps to achieve the 10 goals. This helped demonstrate that water quality initiatives had co-benefits for the other goals.

Table 2: Goals Matrix for Water Quality Initiatives

Strategy	Initiative	Housing	Open Space	Brownfields	Water Quality	Water Network	Congestion	State of Good Repair	Energy	Air Quality	Climate Change
Continue implementing infrastructure upgrades	1. Develop and implement Long-Term Control Plans				✓						
	2. Expand wet weather capacity at treatment plans				✓						
Pursue proven solutions to prevent water from entering system	3. Increase use of High Level Storm Sewers (HLSS)				✓						
	4. Capture the benefits of our open space plan	✓			✓				✓		✓
	5. Expand the Bluebelt program	✓			✓				✓	✓	✓
Expand, Track, and Analyze new Best Management Practices (BMPs) on a broad scale	6. Form interagency BMP Task Force				✓				✓	✓	✓
	7. Pilot promising BMPs				✓				✓	✓	✓
	8. Require greening of parking lots				✓				✓	✓	✓
	9. Provide incentives for green roofs				✓				✓	✓	✓
	10. Protect wetlands				✓					✓	✓

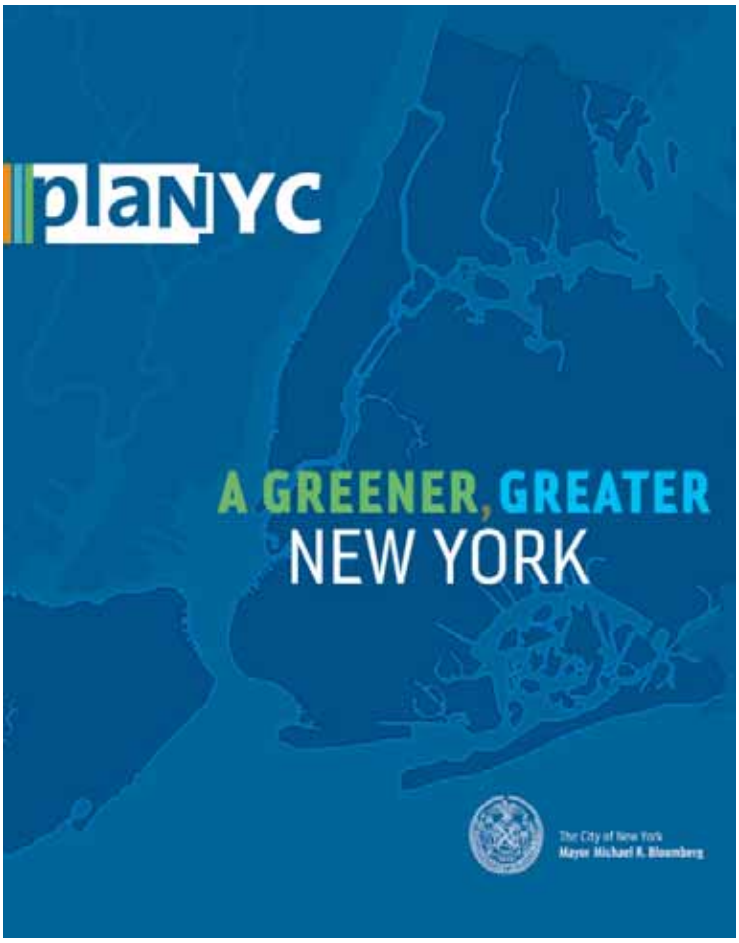
The implementation plan was one of the key differentiators of PlaNYC from other sustainability or climate action plans. While many plans discuss what action needs to be taken, they do not always define who is responsible, where the funding is coming from, and what the timeline is for implementation.

Briefing the Mayor

As OLTPS was developing and refining the initiatives in the plan, the Deputy Mayor, Director of Operations, and Director of OLTPS briefed the Mayor multiple times on all of the initiatives being proposed for the plan. They presented each of the 127 initiatives, and many others that didn't make the plan, and discussed the justification, costs and benefits, implementation timeline, and budget for each initiative. The Mayor was particularly focused on the more controversial initiatives and wanted to do the right thing – even if it might be politically unpopular. He also wanted to know how the plan would impact the City's bottom line. "We talked about the whole plan and how it would impact the City's budget," said Jeff Kay. The Mayor signed off on each of the initiatives in the plan and for a few initiatives OLTPS was making final refinements up until the time the plan when to print.

Writing the Plan

In order to release the plan by Earth Day, writing had to begin while the policies were still being analyzed and vetted. Some of the chapters of the plan were drafted as early as December 2006 for the topics that were initially part of the strategic land use planning effort. One of the major challenges of writing the plan this early in the process was that some of the issues, strategies, and initiatives were not completely clear. This resulted in the team having to spend a significant amount of time re-writing and editing the plan. However, one of the benefits of early writing was that it pushed OLTPS to start thinking about what the plan should look like and how to address the issues and initiatives in a logical framework[10].



NYC MAYOR'S OFFICE OF LONG-TERM PLANNING AND SUSTAINABILITY

Thousands of copies of PlaNYC have been distributed in New York City, to non-profits, community groups, business leaders, and has even been used as a text book in some universities.

The Deputy Mayor's speechwriter, Sophia Hollander, was tasked with creating the "story" of PlaNYC in a single voice. Mayor's Office staff and interns supported the speechwriter by gathering data, facts, and stories to help bring the PlaNYC story alive, create a more compelling argument, and provide the necessary history and context for the initiatives. While developing the initial drafts of the chapters, the speechwriter used placeholders for the key data to allow the writing process to progress. Using a master editor was essential for coordinating the writing process and ensuring that each section of the plan was written in a consistent style.

[10] Ariella Rosenberg Maron, Personal interview, August 20th, 2008.

Releasing the Plan

The release date for PlaNYC moved a number of times, but as spring 2007 approached, OLTPS decided that Earth Day, Sunday April 22nd, would be a logical day to release the plan. Preparing for the unveiling of the plan required an intense level of coordination and planning between OLTPS, the Mayor's press office, and other key stakeholders. The steps OLTPS took leading up to the release of the plan helped to ensure that key stakeholders were well informed and that the press accurately reported the details of the plan. OLTPS made a few key announcements and held a number of briefings for key stakeholders and the press before the plan was released.

By announcing the greenhouse gas emissions inventory a week before the plan, followed by an announcement of one of the most popular initiatives in the plan – to plant 1 million trees – the City was able to generate excitement for the actual release of the plan. The actual announcement of the plan was a well produced event that was followed by a rally organized by the advocacy community to support the plan.

Coordinating with a Coalition of Advocacy Groups

As the plan was being finalized, the advocacy and community-based organizations involved in the Sustainability Advisory Board and the outreach process formed a coalition called the Campaign for New York's Future to support the implementation of the plan. The coalition provided institutional support for the plan and received funding from 15 New York City-based foundations interested in environmental and economic development issues. "Having a coalition is almost essential. Ideally, you would take an existing coalition, but all New York City had was a number of organizations and no one umbrella group under the rubric of sustainability," said Chris Jones, Vice President for Research for the Regional Plan Association.

OLTPS supported the formation of the coalition and provided feedback on the mission of the coalition and guidance on fundraising opportunities. The number one priority for the founding members of the coalition was to support the implementation of the plan and to ensure the longevity of the plan beyond the Bloomberg administration.

Other goals included providing public education support and helping support the implementation of the controversial initiatives that required State approval. The campaign was a useful venue for smaller organizations to collectively endorse the plan and pool together and support the political process required to pass major initiatives such as congestion pricing, which required state approval.

Campaign for New York's Future Mission Statement

The Campaign for New York's Future is a coalition of civic, business, environmental, labor, community and public health organizations that support the goals and strategic direction of PlaNYC. Our goal is to make every neighborhood in NYC a great place to live and work, as well as make a significant contribution to fighting climate change. The coalition aims to encourage public debate — as well as fair and effective action — now and in the years to come. We recognize the need to both seize the opportunity for immediate action and to insure that this long-term plan evolves with continued dialogue and changing conditions.

Preparing for the Release of the Plan

To help set the stage for the big announcement on Earth Day and to communicate the magnitude of the challenge, the Mayor released the city's first greenhouse gas emissions inventory a week before the announcement of the plan. "As one of the world's biggest cities, and a city that others often look to for leadership and inspiration, New York has a responsibility to confront the issue of global warming head on. Scientists around the world have reached a consensus that climate change is a real issue with real consequences. And as a coastal city, we could feel those consequences more than most," said the Mayor during his weekly radio ad-

dress on April 15th, 2007. The Mayor discussed the sources of emissions in the city and highlighted some of the actions the City has already taken to reduce emissions. He very broadly mentioned the types of measures that would be included in PlaNYC, such as energy and water conservation, and said that the strategies would be released on Earth Day.

Several days before Earth Day, OLTPS briefed the Sustainability Advisory Board and local elected officials on the details of the plan, in confidence. OLTPS wanted to ensure key stakeholders were informed of the details of the plan ahead of the announcement, to prevent the press from publishing any misinformation prior to the plan's official release. OLTPS also held an embargoed press briefing the day before the plan was released, to review the details of all 127 initiatives. Although OLTPS asked everyone who was briefed not to comment on the plan until Earth Day, some details were anonymously leaked. "Administration officials have worked hard to keep the plan under wraps and have declined to comment on any of its details, cautioning that they are not final. But a picture has emerged from interviews with several government officials, business leaders and advocates who have been briefed on it, none of whom would allow their names to be used because Bloomberg officials had sworn them to secrecy," wrote the New York Times on April 20th[11]. This article speculated about some of the major initiatives that would likely be included in the plan, such as congestion pricing, brownfields cleanup, and a new authority to plan for major transit infrastructure investments, which all helped to generate excited for the release of the plan. On the day before the announcement of the plan, the Mayor announced the MillionTreesNYC initiative, to plant one million trees over ten years.

Announcing the Plan

OLTPS organized an event on Earth Day for the Mayor to present the plan at the Museum of Natural History. In order for the advocacy community to understand the scope and details of the plan, OLTPS held a technical briefing on site immediately before the announcement. The briefing was the first time the details of the plan were publicly discussed, and the advocates were all very enthusiastic about its boldness and saw that many of their ideas were incorporated. This was an important step in ensuring that there were individuals who could comment to the press immediately after the announcement.

NYC MAYOR'S OFFICE

Mayor Bloomberg releases PlaNYC on Earth Day 2007 at the Natural History Museum in New York.

The Mayor unveiled the plan and announced the key initiatives to an audience that included hundreds of advocates, elected officials, and business leaders. As both a sign of the economic times and a call to action, the Mayor said, "Our economy is humming, our fiscal house is in order and our near-term horizon looks bright. If we don't act now, when?"[12] The Mayor's speech[13] was accompanied by videotaped recordings from Tony

[11] Diane Cardwell, and Charles Bagli. "Bloomberg to Unveil Long-Term Vision for the City." The New York Times. April 20, 2007.

[12] Thomas Lueck. "Bloomberg Draws a Blueprint for a Greener City." The New York Times. April 23, 2007.

[13] The City of New York. Office of the Mayor. "Mayor Bloomberg Presents PlaNYC: A Greener, Greater New York." Press Release. April 22, 2007.

"We believe this is a bold and visionary plan that will benefit New York's working families for generations. We are enthusiastic about continuing this process and congratulate Mayor Bloomberg on making the informed decisions that will benefit all of us."

– Ed Ott, executive director of the New York City Central Labor Council and Sustainability Advisory Board member

Blair and Arnold Schwarzenegger, which resulted in an emotional and inspiring atmosphere that involved three standing ovations.

The day after the City released the plan, members of the Campaign for New York's Future gathered at City Hall for a press conference to demonstrate their support for the plan and released a press release endorsing the plan. "We believe this is a bold and visionary plan that will benefit New York's working families for generations. We are enthusiastic about continuing this process and congratulate Mayor Bloomberg on making the informed decisions that will benefit all of us,[14]" Ed Ott, executive director of the New York City Central Labor Council and Sustainability Advisory Board member. Nearly 75 local organizations from around the City helped to demonstrate to the public, the media, and most importantly to local and state elected officials the broad support for the plan. "PlaNYC recognizes the need to redefine the City's environmental agenda broadening it to include energy and transportation policy, infrastructure development and affordable housing. In doing so, it positions New York to be to be a truly sustainable city,[15]" said Marcia Bystryn, executive director of the New York League of Conservation Voters and Sustainability Advisory Board member.

Implementing the Plan

Despite its quality and breadth, PlaNYC's real impact is only in its implementation. Immediately following the Mayor's announcement of PlaNYC on April 22nd, City staff began implementing PlaNYC in earnest the next day. OLTPS staff changed their focus from policy creation to implementation and the director of the office rearranged staff responsibility and eventually doubled the size of the staff to facilitate implementation. Several key steps enabled the effective implementation of the plan.

PlaNYC is a great example of a comprehensive sustainability plan, however what really makes it a model is the City's swift action to begin implementation immediately after its release. The following factors helped to pave the way for the implementation:

- Receiving funding for the initiatives in the City budget
- Support and collaboration with the Campaign for New York's Future
- Formalizing OLTPS and the sustainability planning process
- Beginning implementation on both short-term and long-term initiatives immediately after the plan's release and seeking state approval for relevant initiatives
- Designating PlaNYC project managers in key agencies responsible for implementing initiatives

[14] Campaign for New York's Future. "Groups Embrace PlaNYC 2030." Press Release. April 23, 2007.

[15] Ibid.

Funding

One of the reasons for the success of PlaNYC was that a number of City-led initiatives in the plan had designated funding in the City's budget, which was announced four days after the relese of PlanYC. PlaNYC was not just a plan that would sit on a shelf – it was an action-oriented plan with $199 million worth of projects that were included in the City's 2008 budget and $1.6 billion in the ten year capital plan. While the timing of the budget was fortuitous, it helped to communicate to the public that the City was committed to achieving the goals in the plan and could begin implementation in the upcoming fiscal year.

In the spring of 2007, New York City's economy was booming, thanks to a strong real estate market and Wall Street profits. In fact, the City had recorded budget surpluses four straight years in a row, which helped to provide the rationale to invest in environmental programs. "In times of prosperity, we must take steps so that we do not have to return to New Yorkers to ask them to dip into their pockets when times are bad,'' said William C. Thompson, the city's comptroller[16].

Support from the Campaign for New York's Future

Following the announcement of the plan and the subsequent press conference, the Campaign for New York's Future continued to be strong advocates for the implementation of the plan. Their initial efforts were primarily focused on passing congestion pricing, because it was not only the most bold and controversial initiative in PlaNYC, it was also the initiative with the most pressing deadline. The City was seeking hundreds of millions in federal funding to implement the congestion pricing program, as part of the United States Department of Transportation's Urban Partnership Program for cities implementing innovative transportation improvements. However, in order to create a new toll and to establish the authority that would invest the revenues from the congestion tool, the proposal required approval from the New York State Legislature.

CAMPAIGN FOR NEW YORK'S FUTURE

The Campaign for New York's Future holds a rally in support of PlaNYC the day after the plan is released.

The Campaign for New York's Future was instrumental in building support for congestion pricing, educating the public about the benefits of the program, and lobbying the State Legislature. Although congestion pricing ultimately failed to progress through the State Legislature, the Campaign demonstrated the need for coordinated external support to build the political buy-in for such a transformative program.

Institutionalizing the Mayor's Office of Long-Term Planning and Sustainability and the Planning Process

To establish OLTPS as a permanent office with a director who is responsible for the implementation of the City's sustainability plan, the City Council with assistance from OLTPS, drafted a bill to institutionalize OLTPS

[16] Ray Rivera, "Bloomberg's Budget Includes Tax Cuts and a Record Surplus." New York Times, April 27, 2007.

and the Sustainability Advisory Board. The local law also establishes a timeframe for reporting progress on the plan's implementation and for the periodic update of the plan. The law calls for PlaNYC to be updated every four years, to look at the next 20 year time horizon and for OLTPS to report on its implementation progress every year. When the plan is updated every four years, OLTPS will have an opportunity to revise the goals and policies. However, the legislation requires the City to explain any additions, deletions, or revisions. Local law 17 of 2008 was passed by the City Council and then signed into law by the Mayor in May 2008.

Beginning Implementation and Seeking State Approval

The vast majority of the initiatives in PlaNYC can be implemented by City government, however there were a few initiatives, such as congestion pricing and some new tax incentives, that needed State Legislative approval. Immediately following the release of the plan, the City's law department sent a 500-page omnibus bill to the state capital. The bill covered the few initiatives in the plan that required state approval, including congestion pricing and the initiatives involving tax incentives. This bill was drafted to communicate to the State government and the public that the City was serious about moving forward with implementing the plan and that it would not be a plan that sat on a shelf[17].


Implementation

NYC MAYOR'S OFFICE OF LONG-TERM PLANNING AND SUSTAINABILITY

Designating Agency Project Managers

OLTPS also worked with each of the City agencies and ensured that each agency had a project manager assigned to manage the implementation of their assigned initiatives. Having a contact person in each agency helped to hold the agencies accountable for the implementation of their relevant initiatives and also facilitated communication between OLTPS and the agencies. In many cases, the agency project manager also participated in the development of the plan and was familiar with the history of the initiatives.

Implementation Examples

Two years after releasing the plan, the City has launched virtually all of the 127 initiatives in PlaNYC and has made significant progress on a number of initiatives, despite some setbacks on major initiatives such as congestion pricing and hybrid taxis. The City's goal was to launch as many initiatives as possible within the first year of releasing the plan and to make sufficient progress on the initiatives so they could have enough momentum to survive mayoral administration changes. Although the City placed quick-win initiatives as a top priority for implementation, they also began implementation on major long-term initiatives so as to begin to make progress on more politically controversial initiatives.

[17] Amy Chester, Personal interview, June 30th, 2008.

The following section provides some highlights of the implementation of various initiatives and illustrates that implementation can take many different forms, such as legislation, investment, or forming task forces to analyze issues in greater depth. For a complete update on the status of the 127 initiatives in PlaNYC, see the 2009 PlaNYC Progress reports available at www.nyc.gov/planyc2030.

Million Trees Initiative

One of the most popular initiatives of PlaNYC is the 'Million Trees NYC' initiative, which is program to plant and maintain one million new trees across the City of New York over a ten year span. It is a public-private initiative led by the New York Parks Department and the New York Restoration Project, a non-profit founded by Bette Midler, dedicated to reclaiming and restoring underused parks, gardens and open spaces across the city.

The Million Trees initiative has been one of the most visible and well-received of the PlaNYC initiatives, attracting support from local and national businesses, non-profits and individuals. The initiative has also been successful in raising funds from the private sector to support implementation. The goal is to plant 60 percent of the trees in parks and along streets, with the remaining 40 percent on private properties.

The implementation plan has identified six target neighborhoods which are judged to have priority needs for trees, in particular because they have a high incidence of child asthma called "Trees for Public Health" neighborhoods. It is the hope that the new trees will reduce air pollutants, in addition to improving the streetscape and helping to cool the city.

NYC MAYOR'S OFFICE

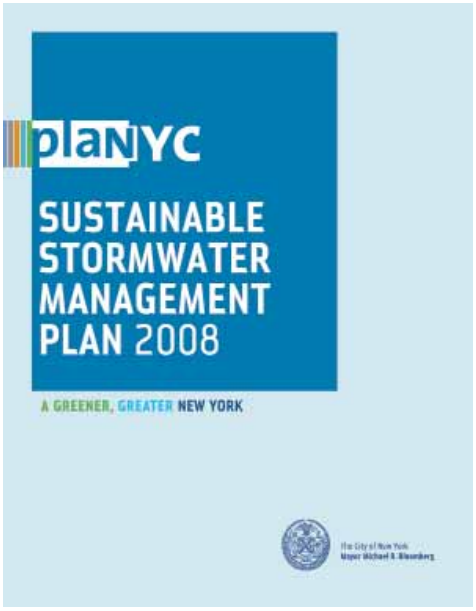
Mayor Bloomberg plants the first tree in the million trees campaign with Bette Midler, founder of the New York Restoration Project.

Mayor Bloomberg and Bette Midler planted tree number 111,111 at the one-year anniversary of the launch of the program, meaning the program had exceeded its first year target by more than 10 percent due to overwhelming civic and community support. Subsequently in November 2008 a weekend of large-scale planting saw a further 15,000 trees planted by more than 1,000 volunteers at sites across the city. As of April 7, 2010, a total of 319,054 trees have been planted.

Hybrid Taxis Initiative

Taxis travel an average of 80,000 miles per year, making them an excellent target for fuel efficiency increases. Although PlaNYC proposed a limit on taxi emissions, the City's efforts have fueled federal pre-emption challenges. The Taxi and Limousine Commission (TLC) passed a rule requiring higher fuel efficiency standards for new taxis in December 2007, according to the policy set out in PlaNYC. However, a federal judge ruled in late 2008 that only the federal government can regulate fuel efficiency standards. In response to this ruling, TLC created a new system of financial incentives and disincentives to taxi owners to encourage them to switch to hybrid vehicles by increasing the amount they can charge to lease a hybrid vehicle relative to a conventional vehicle. This, too, was overturned by a federal judge in 2009. Nonetheless, the Mayor's advocacy and reduced fuel costs have led 25% of the 13,237-vehicle fleet to convert to hybrids.

Stormwater Management Plan Initiative



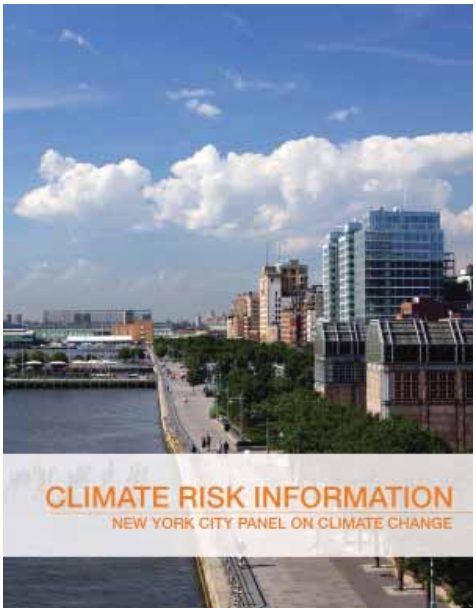
NYC MAYOR'S OFFICE OF LONG-TERM PLANNING AND SUSTAINABILITY

PlaNYC called for the creation of an interagency task force to create a stormwater management plan, which was codified by Local Law 5 of 2008. This taskforce was formed in May 2007 and convened all relevant City agencies to analyze ways to incorporate source control stormwater management techniques, known as BMPs, into the design and construction of both public and private projects to reduce pollution from untreated discharges and combined sewer overflows. The taskforce met for over a year until the plan was released in December 2008 and held a series of public outreach meetings in addition to roundtable discussions with a number of advocacy groups.

The plan analyzes the costs and benefits of using source controls to reduce pollution from untreated discharges and combined sewage overflows, compared to traditional large infrastructure such as storage tanks. It evaluates the integration of source controls into the design and construction of public and private projects, specifically targeting impermeable surfaces such as rooftops, roadways, and sidewalks.

It outlines more than 20 City-run pilot projects to test innovative source controls in New York City, proposes a performance standard for new buildings to detain stormwater onsite, and provides for a rate study of economic incentives for source controls. The plan is one of the most comprehensive studies of source control approaches and is one of the few to look at source controls in a dense, ultra-urban environment. The plan is also an example that implementation is an iterative process that can involve piloting various techniques to test solutions before they are implemented citywide.

Climate Change Adaptation Taskforce Initiative



NYC MAYOR'S OFFICE OF LONG-TERM PLANNING AND SUSTAINABILITY

The first initiative under the climate change theme in PlaNYC was to create an interagency task force to look at climate change adaptation strategies to protect the City's infrastructure. The NYC Climate Change Adaptation Taskforce was launched in August 2008 and it consists of 38 city, state, and federal agencies, regional public authorities, and private companies that operate, regulate, or maintain critical infrastructure in New York City. In addition, the New York City Panel on Climate Change (NPCC) is providing technical assistance and expertise to the task force. The NPCC is a mayoral appointed panel, comprised of leading climate change and impact scientists, and legal, insurance, and risk management experts, that is advising the Taskforce and the City on the impacts of climate change and the development of adaptation strategies. The NPCC developed climate change projections for New York City through the end of the century.

The NPCC released the Climate Risk Information assessment in February 2009, which provides an in-depth analysis on the impacts of climate change on New York City. The report includes climate change scenarios, infrastructure impacts, future projections, and indicators. The report sets the stage for a long-term climate change adaptation planning process in New York City and the taskforce and climate change panel are an excellent example of the level of collaboration needed to address the impacts of climate change.

New York City Brownfields Office Initiative

Mayor Bloomberg established the Office of Environmental Remediation (OER) in June 2008 to coordinate the remediation of all brownfields in New York City. The new office will streamline the process for cleaning up brownfields in the City and will help the City achieve its goal in PlaNYC of cleaning up all contaminated land. Since its inception, OER has designed a Local Brownfield Cleanup Program to reflect State standards, with a focus on streamlining the approval process, protecting communities, incentivizing participation, and promoting sustainability goals. To begin to reach out and market the program, the office has fostered the creation of the Partnership of Brownfield Practitioners and well-received training workshop called "Brownfields for Beginners."

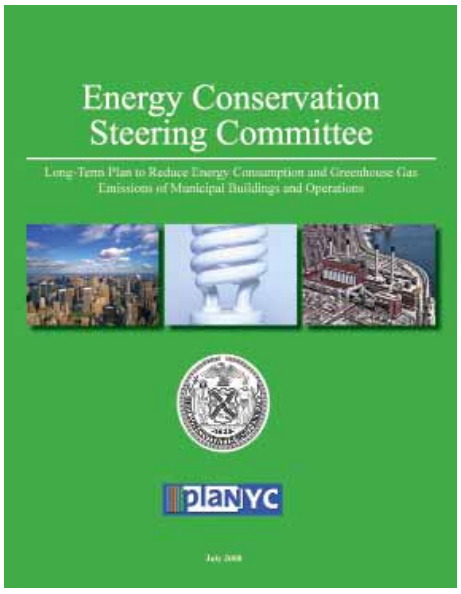
University Challenge Initiative

NYC MAYOR'S OFFICE

Mayor Bloomberg and nine local university presidents announce that the universities have accepted the Mayor's challenge to reduce emissions 30% over the next ten years, matching the City's government operations goal.

As part of the energy initiative to prioritize five key areas for targeted incentives to reduce government and institutional emissions by 30 percent by 2017, the Mayor has challenged local universities to play their part in achieving a 30 percent reduction in energy consumption by 2017. Alongside the City, these universities have created their own greenhouse gas emissions inventories and are working on action plans for retrofitting their buildings and greening their overall operations. So far, 14 local universities have accepted the Mayoral Challenge. The universities own significant real estate portfolios in New York City, and through their efforts the City will be able to make major gains towards achieving its overall 30 percent reduction by 2030 for the community as a whole.

The City is playing an integral role of facilitator and motivator to the universities and regularly convenes meetings to monitor the progress of the universities. The City continues to add universities to the program and is also expanding into other sectors, and recently launched the Broadway Goes Green challenge, in which Broadway theaters are greening their buildings and productions. This initiative is a great example of the role institutions play in reducing emissions and how the City can act as a leader to catalyze action in the private sector.



NYC MAYOR'S OFFICE OF LONG-TERM PLANNING AND SUSTAINABILITY

Long-term Plan for Reducing Energy Consumption and Greenhouse Gas Emissions from Municipal Buildings and Operations Initiative

In July 2008, the City's Energy Conservation Steering Committee published its Long-Term Plan to Reduce Energy Consumption and Greenhouse Gas Emissions of Municipal Buildings and Operations. It sets a target, principles and strategies for the reduction of energy consumption and emissions. The plan allocates 10% of the City's $800 million annual energy budget to energy efficiency initiatives, equaling $80 million annual investment.

The plan sets out the amount in tons by which the City must reduce emissions annually to meet the 30 percent reduction target by 2017, the way in which this is to be achieved (predominantly through existing building upgrades), and the cost of doing so ($2.3 billion, which it projects will break even in FY13 (annually) and FY15 (cumulatively)).

The City of New York is taking a leadership role in reducing its emissions following a more aggressive timeframe than the citywide emissions reduction target for 2030. This approach will help demonstrate to the private sector the economic and environmental benefits of energy efficiency activities and also demonstrates to the public the City's commitment to reducing its greenhouse gas emissions.

Greater, Greener Buildings Plan

PlaNYC sets a goal of achieving a 30 percent reduction in New York City's annual greenhouse gas emissions below 2005 levels by 2030. Acknowledging that nearly 80 percent of our citywide emissions result from the energy that we use in buildings, we have set out to improve the energy efficiency of New York City's buildings. In 2008, the City began leading by example by producing a Long-Term Plan to Reduce Energy Consumption and Greenhouse Gas Emissions of Municipal Buildings and Operations, increasing the energy efficiency of dozens of city buildings, and working with institutions like universities and theaters to address their energy consumption as well. Mayor Bloomberg and City Council Speaker Quinn asked the US Green Building Council to lead a Green Codes Task Force to develop specific recommendations to eliminate barriers to green construction and to require low-cost measures. To increase direct incentives for energy efficiency, the City has continued to advocate that the New York State Public Service Commission approve a full package of energy efficiency programs targeted at multi-family apartment buildings, rental properties, and large commercial buildings.

NYC MAYOR'S OFFICE

Mayor Bloomberg signs the Greater, Greener Buildings legislation on December 28, 2009 – the city's suite of bills to address energy use in existing buildings.

On Earth Day 2009, the Mayor and the Speaker announced the City's comprehensive approach to require ongoing efficiency improvements in existing large buildings, which consume nearly half of the city's energy. By 2030, the City projects that 85 percent of its energy use will come from buildings that already exist today; as a result, the City is unable to rely on new buildings to be more efficient. To ensure that existing buildings become more efficient over time, the Mayor and the Speaker have proposed a Greener, Greater Buildings Plan, consisting of the following six components:

- New York City Energy Code
- Lighting Upgrades
- Benchmarking
- Audits and Retrofits
- Green Workforce Development Training
- Green Building Financing

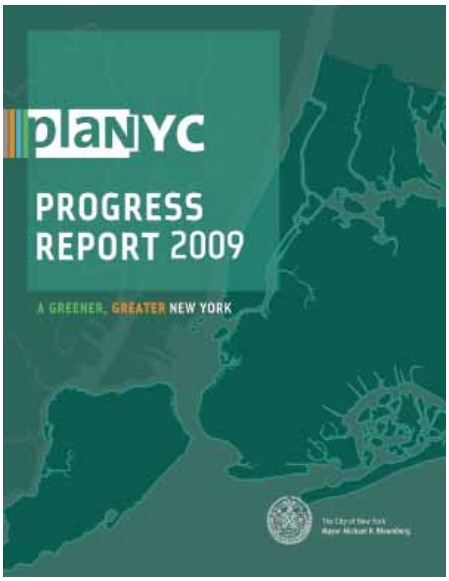
After several months of hearings, workshops, and negotiations, the City Council passed the bills and the Mayor signed them into law in December.

Monitoring Implementation Progress

Accountability to the Public

In keeping with the Mayor's commitment to transparency and accountability, when the Mayor announced PlaNYC he also committed to reporting on the implementation progress. Similar to the citywide performance reporting approach, OLTPS uses multiple approaches for monitoring and reporting this progress, and has institutionalized this process through Local Law 17 of 2008. The Mayor uses two main reporting mechanisms for monitoring citywide performance: the biannual Mayor's Management Report on overall City performance trends and the Citywide Performance Report, which is updated regularly and reports on agency-specific indicators.

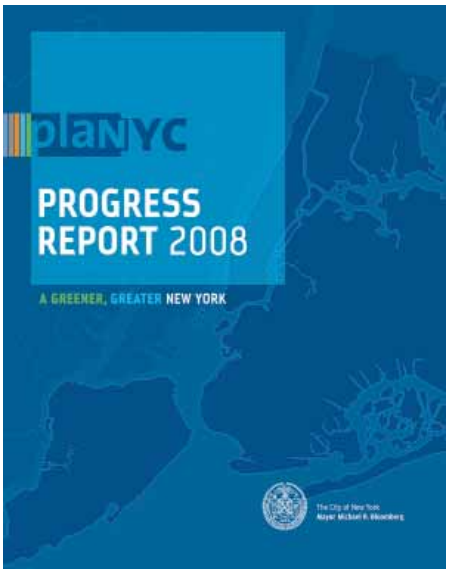
Similar to the Mayor's Management Report, OLTPS produces the annual *PlaNYC Progress Report* to update implementation progress on the 127 initiatives. In addition, the City updates its greenhouse gas inventory annually and reports on the progress of climate change mitigation initiatives. To add to the annual progress report, the City is also developing a set of sustainability indicators to monitor the City's performance using a common set of metrics, which will be posted online and regularly updated.



NYC MAYOR'S OFFICE OF LONG-TERM PLANNING AND SUSTAINABILITY

Six months after the release of PlaNYC, OLTPS produced a six-month scorecard, which reported on the implementation progress. This interim report, so early in the process, demonstrated to the public the City's commitment. To facilitate the development of the annual progress report, OLTPS maintains an implementation master spreadsheet for all the initiatives – to keep track of the milestones, targets for each quarter, lead agency or agencies, and status. OLTPS has bi-weekly meetings with all relevant agencies to review the status of each initiative, in addition to regular liaising with agency policy advisors.

OLTPS is also continuing to meet with the Sustainability Advisory Board and hold working group meetings. To keep the board and key City staff up to date on the progress of the implementation, OLTPS launched a bi-weekly electronic newsletter in 2008.



NYC MAYOR'S OFFICE OF LONG-TERM PLANNING AND SUSTAINABILITY

Using Sustainability Indicators to Measure Progress

As part of the process of institutionalizing PlaNYC, Local Law 17 of 2008 also requires the City to report on a set of sustainability indicators to measure the progress towards achieving the ten goals in PlaNYC. The City's sustainability indicators were released on Earth Day 2009 and have been incorporated into the City's Citywide Performance Report. The Citywide Performance Report is updated on a monthly basis and is available online, so the public can monitor the City's performance on a real-time basis.

OLTPS is also participating as a Steering Committee member in the development of the STAR Community Index, which will be a national sustainability framework that local governments can use to measure their sustainability. For more information on STAR, go to http://www.icleiusa.org/star.

Summary and Conclusions

Components of Success

The PlaNYC case study describes how the nation's largest city came together to develop a sweeping plan that guides the City's growth over the next 25 years. The story illustrates a number of factors for success both in the planning process and the plan itself and most notably demonstrates that the planning process for a sustainability plan is as important as the content and quality of the final plan.

The key principles underpinning the planning process that enabled New York City to develop a high quality and roundly supported sustainability plan include:

- Buy-in from the top
- Central management and coordination
- Research and analysis
- Guidance from an advisory board and public
- Inclusive and transparent planning process
- Accountability to the public
- Institutionalization of the plan and the planning process

In addition to coordinating a robust planning process with broad public outreach, New York City also went to great lengths to ensure that PlaNYC itself was a high-quality implementable plan. The elements of the PlaNYC that make it a model sustainability plan, include:

- Facts and figures from the sustainability assessment to illustrate the issues being addressed in the plan
- Goals to set a vision and framework for the plan
- Aggressive but achievable initiatives
- Initiatives with clear implementation plans covering timing, funding, and responsibilities
- A narrative that explains how the initiatives in the plan address the challenges
- A matrix illustrating the relationship between the goals and initiatives
- Monitoring and evaluation for tracking progress

PlaNYC as a model for ICLEI's Sustainability Five Milestones

Taking into account these principles and the core elements of a sustainability plan, ICLEI has used the PlaNYC case study as a model for its sustainability planning Five Milestones in the Sustainability Planning Toolkit. The Sustainability Five Milestones will provide local governments with a straightforward process for developing a high quality plan and can be used by local governments of different sizes or with varying scopes for their plan. The five milestones are as follows:

- Milestone One: Conduct a sustainability assessment
- Milestone Two: Establish sustainability goals
- Milestone Three: Develop a local sustainability plan
- Milestone Four: Implement policies and measures
- Milestone Five: Evaluate progress and report results

In the first phase of the planning process, New York City assessed the state of its environment, infrastructure, and greenhouse gas emissions and projected the impacts of continuing on a business as usual trend. This assessment became the basis for the plan, and it is used as a model for **Milestone 1: Conduct a Sustainability Assessment**. Although the City did not release its updated greenhouse gas inventory until just before PlaNYC was released, it used the preliminary emissions data in the initial sustainability assessment.

NYC DEPARTMENT OF TRANSPORTATION

PlaNYC helped lay the groundwork for bold initiatives like the transformation of Times Square into a pedestrian plaza.

While continuing to research issues and best practices, the City then developed a set of 10 sustainability goals to provide a framework for the plan and for the public outreach process, which is defined as **Milestone 2: Establish Sustainability Goals.** The City identified goals that were ambitious yet achievable, based on its preliminary analysis of various strategies' potential. The goals addressed the key components of sustainability such as land use, open space, housing, transportation, water, energy, air quality, and climate change.

Following the release of the goals, the City continued to analyze various strategies, and ultimately developed the 127 initiatives in PlaNYC, completing **Milestone 3: Develop a Local Sustainability Plan**. The City is now in the process of implementing the plan and monitoring its implementation progress, as defined by **Milestone 4: Implement Policies and Measures**, and **Milestone 5: Evaluate Progress and Report Results**.

This case study not only demonstrates the process, factors for success, and elements of a high quality plan, but it also illustrates the importance of sharing best practices. As the largest city in the country, local governments look to New York City as an example. The notion, "if you can make it here, you can make it anywhere" applies. Developing a sustainability plan is a challenging process, but it can have the power to transform a community and put it on a path towards measurably improving its sustainability. Local governments should use this case study and the Sustainability Planning Toolkit for guidance, ideas, and inspiration to craft their own planning process. This case study demonstrates the importance of sharing best practices and lessons learned with other local governments and it illustrates how a sustainability plan can be used as a framework for action.

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Appendix: Templates Used to Develop PlaNYC

Best Practices Template

Strategy: Encourage Green Roof installations to increase canopy cover and pervious surfaces on a neighborhood level

I. Brief description of idea (including growth-related challenge to be addressed and examples of comparable models in practice)

Green roofs help improve air quality, limit storm water run-off, and reduce heating and cooling costs.

II. Existing Comparables

A handful of private buildings in New York City have built green roofs. The first City-owned green roof is being built at the Queens Botanical Garden. New York City recently passed the Green Building law (Intro 324-A) requiring buildings receiving at least $10 million in City funding to be built to strict environmental standards. Green roofs are an important option to help meet those standards.

In Chicago, the city used a complex formula to calculate the bonus, but at least 50 percent of the roof needs to be covered with vegetation before the bonus takes effect. More significantly, of the estimated 150 green roof projects now being developed, only 12 are taking advantage of the city's incentives. The rest are being built because the city requires the new developments that benefit from city financing to install green roofs.

III. Required Resources

Develop a program of incentives to encourage development of green roofs. For example, HPD can incorporate Green Roof requirements for developers who are receiving city, state, federal financing. DCP can incorporate requirements into areas where zoning bonuses might be available in exchange for green roof developments. Agency staff with appropriate training will develop and administer program requirements.

IV. Challenges Related to Adoption/Implementation in NYC (budgetary, political, logistical)

Green roofs are seen as both expensive and high-maintenance, but this is misleading. The extensive roof uses a shallow depth of soil and small hardy groundcover plants, at costs at the lower end of the range (beginning at $8 per square foot). The intensive roof uses a greater depth of soil and allows the planting of shrubs and even trees, at costs at the higher end of the range (up to $28 per square foot). The first year or two of maintenance are critical in establishing the plants. Education of building owners and management companies is required to insure the roof's success.

Adding green roofs to existing buildings requires determining the existing capacity and designing the appropriate type of planting scheme to fit the building.

Developers would need to be reminded of the benefit from marketing their buildings as green, with green roofs. Although development costs in New York City are already significant, if the city decides to grant additional FAR, a developer could easily recoup the minor costs of the green roof installation.

V. Parallel Efforts/Studies

Private individuals and non-profits are pursuing the expansion of green roofs, both as a means of expanding public and private open space and as a means of improving environmental quality (not necessarily accessible)

Earth Pledge, a NYC-based non-profit, provides technical assistance to non-profit organizations that serve low- to moderate-income residents to develop green roofs and related programming at their facilities.

Silvercup Studios recently developed a green roof at their facility in Long Island City using a $500,000 grant from Clean Air Communities, a local non-profit committed to air pollution reduction and energy efficiency strategies in low-income communities that are disproportionately affected by air pollution.

Sustainable South Bronx (SSB) recently developed a green roof, which was sponsored by Con Edison. SSB is developing a business plan to market green roofs' to the private sector, an initiative that can create jobs and markets for recycled materials.

The U.S. EPA is conducting its Urban Heat Island Pilot Project to estimate the energy savings due to cool roofs and tree planting. The cities of Sacramento, Baton Rouge and Salt Lake City showed a cost savings of between $4 million and $15 million. The study is continuing, but it indicates that cities with a long warm season and/or high cooling costs will benefit most from green roofs and other cooling measures. Chicago also tracks the value of its green roofs, and found that its premier project, the roof on City Hall, "registered approximately 90 degrees on the hottest summer days while its neighboring roof over Cook County registered 160 degrees."

Detailed Analysis of Initiatives Template

I. Overview

a. Initiative name:
b. Lead Policy Advisor:
c. Supporting agencies:

II. Description of initiative and benefits

III. Sustainability Plan Goals addressed (Y/N)

Housing:	Y/N
Parks/Open Space:	Y/N
Congestion:	Y/N
Water Supply:	Y/N
Transportation SGR:	Y/N
Energy Supply:	Y/N
Carbon target:	Y/N
Air quality:	Y/N
Brownfields:	Y/N
Water Quality:	Y/N

IV. Major implementation needs

Federal legislation?	Yes/No
State legislation?	Yes/No
City legislation?	Yes/No
State regulation?	Yes/No
City regulation?	Yes/No
City capital budget?	Yes/No
Agency implementation?	Yes/No
Other:	

V. Necessary implementation steps (by year or for 2007 steps, by quarter)

2Q07:
3Q07:
4Q07:
2008:
2009:
Beyond:

VI. Describe legislation or regulation needed, if any

VII. Challenges Related to Adoption/Implementation (e.g., political, agency buy-in, technical, financial)

VIII. Locations to be implemented (if applicable)

IX. Costs and ROI

Costs:

a. Annual Cost Savings
b. Capital Costs
c. Operating Costs
d. Cost per Metric Ton of CO2e Reduced

Financial Return On Investment:

a. Simple Payback
b. Net Present Value
c. Internal Rate of Return

X. Sources of funds/financing structure (if any)

XI. Key Metrics

Estimated Annual Energy Savings:
Estimated Annual CO2e Reduced:
Other:

XII. Key work remaining

XIII. Best Practice Examples

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