

City of Kingston

CLIMATE ACTION PLAN

2010 Community-Wide & Local Government Operations
Energy and Greenhouse Gas Emissions Inventory



September 2012





CITY OF KINGSTON

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Dear Friends and Neighbors

March 30, 2012

In October 2009, the City of Kingston demonstrated its commitment to environmental and climate protection by adopting the "Climate Smart and Green Jobs Community Pledge" and becoming a New York State "Climate Smart Community". In August 2011, the City of Kingston furthered that commitment by becoming a member of ICLEI – *Local Governments for Sustainability*, joining more than 600 other U.S. local governments as the most forward-thinking and adept local governments working to make their communities more livable, prosperous, equitable, and environmentally sound.

As a 'Climate Smart Community', the City of Kingston was able to secure funding to begin to implement the "Climate Smart and Green Jobs Community Pledge". Using tools available through ICLEI, a baseline energy assessment was assembled, greenhouse gas emissions were measured and this Climate Action Plan was developed. This Plan is consistent with other local efforts that seek to improve the efficiency of government operations, save taxpayer dollars, and improve the quality of life in the City of Kingston.

This plan focuses on six important topics, Energy & Renewables-Buildings & Facilities; Land Use, Transportation & Vehicles; Materials Management-Waste Reduction & Recycling; Sustainable Resource Management; Outreach Education and Training, and Climate Adaptation. Implementation of this plan will have an impact on all we do; from the amount and type of energy we use, the economic development we support, how we move about the City, where we get our food, and how we manage our 'waste'.

The success of this effort is due to the hard work of the Kingston Conservation Advisory Council and the Kingston Climate Smart and Green Jobs Community Task Force. These groups deserve our sincere thanks for volunteering their time to achieve these milestones and for their service to improving the quality of life in our community.

It is my hope that as part of our effort to improve the quality of life in the City of Kingston and continue to grow as a sustainable community, that you join me in the active participation of the endeavors set forth in this plan. We have a tremendous opportunity to be a 'model' of sustainability, not only for the Hudson Valley but for the entire State of New York.

Sincerely

Shayne R. Gallo
Mayor, City of Kingston

ACKNOWLEDGEMENTS

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Climate Smart and Green Jobs Community Task Force

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EXECUTIVE SUMMARY

The City of Kingston recognizes that greenhouse gas (GHG) emissions from human activity are catalyzing profound changes in climate and weather, the consequences of which pose substantial risks to the future health, well-being, and prosperity of the community.

The ultimate goal of this effort is to locally reduce GHG emissions. In addition rising energy costs make it imperative that the City of Kingston local government take a leadership role in advancing energy saving measures and other sustainability initiatives that will stabilize and potentially reduce energy related expenditures for City government, local businesses and City residents.

The City of Kingston local government has a strong role to play in reducing GHG emissions. Through proactive measures around land use planning, transportation, energy efficiency, green building, waste reduction, and more, the City can dramatically reduce energy use and emissions in the community. Reducing GHG emissions will improve public health and safety and create a cleaner and more sustainable City.

In order to reduce energy use and GHG emissions an accounting of the current energy use and emissions was necessary to establish a baseline and set reduction goals. For what gets measured gets managed.

In response, the City of Kingston has taken action by completing comprehensive energy assessments and GHG emissions inventories for both the community and government operations.

COMMUNITY INVENTORY RESULTS

The transportation sector in the City of Kingston consumes the largest percentage of the community's energy. The commercial sector is second, however the commercial and residential sectors combined, account for the largest proportion of the community's energy consumption.

Community-wide GHG emissions in the City of Kingston were approximately 225,097 tonnes of CO₂e in 2010. The transportation sector accounted for the majority of the community's GHG emissions, with the commercial and residential sectors being second and third, respectively.

The GHG emissions of 225,097 tonnes of CO₂e, is equal to the CO₂ emissions from the consumption of 25,235,090 gallons of gasoline, 523,481 barrels of oil, the electricity use of 28,067 homes for one year or the carbon sequestered by 47,995 acres of pine or fir forests.

GOVERNMENT INVENTORY RESULTS

The City of Kingston government energy costs in 2010 were \$1,590,415, 4.6% of the 2010 budget. Taking into account the energy costs of the Kingston Water Department (KWD), (\$97,034), the Kingston Housing Authority (KHA), (\$268,389), and Dietz Stadium (\$19,564) the overall 2010 total energy costs for City government related operations comes to \$1,975,402. Adding in the estimated employee commuting fuel costs of \$119,904, energy related expenses in 2010 were \$2,095,306.

For 2010, the GHG emissions from the City of Kingston government, including the emissions from the KWD, the KHA, Dietz Stadium and employee commuting are estimated at 7,281 tonnes of CO₂e.

Excluding the KWD, KHA, Dietz Stadium and employee commuting, that is just looking at the operations that are traditionally part of the City government budgeting process, the GHG emissions were estimated at 4,587 tonnes of CO₂e.

While GHG emissions were looked at with and without the KWD, KHA, Dietz Stadium and employee commuting, the City of Kingston government has some degree of operational control over or ability to influence and affect each of these areas to reduce the overall total GHG emissions of 7,281 tonnes of CO₂e.

The GHG emissions of 7,281 tonnes of CO₂e, is equal to the CO₂ emissions from the consumption of 816,256 gallons of gasoline, 16,933 barrels of oil, the electricity use of 908 homes for one year or the carbon sequestered by 1,552 acres of pine or fir forests.

ENERGY AND GHG EMISSIONS REDUCTION TARGET

The proposed overall goal is to reduce energy usage and GHG emissions 20% by 2020 or '20 by 20.'

CLIMATE ACTION RECOMMENDATIONS

This draft City of Kingston Climate Action Plan (CAP) includes recommendations for comprehensive policies and programs that will reduce greenhouse gas emissions, enhance operational and energy efficiencies, reduce energy costs, support local job growth, and adapt to a changing climate while improving quality of life, saving taxpayer dollars, and promoting social justice. Implementation of many of the initiatives in this Plan will create 'green' jobs.

While Climate Action Plans ordinarily focus on reducing GHG emissions; this plan more broadly addresses many important initiatives that fall under the broad umbrella of 'sustainability.'

It is recommended that the City of Kingston Common Council adopt the Climate Action Plan through a resolution that supports and formally recognizes the goals and initiatives of the Plan as City of Kingston policy and intent. Council adoption and recognition of the Plan will not result in the blanket acceptance or approval of its goals and initiatives. Advancing many of the goals and initiatives will require further administrative and legislative action. Actions taken on specific initiatives will be based on prioritization of the initiatives and the human and financial resources available to implement such actions.

Proposed goals and initiatives are presented according to six different subject areas:

- A. Energy and Renewables: Buildings and Facilities
- B. Land Use, Transportation & Vehicles
- C. Materials Management: Waste Reduction, Re-Use, Recycling & Composting
- D. Sustainable Resource Management
- E. Outreach, Education & Training
- F. Climate Adaptation

CLIMATE ACTION PLAN SUMMARY

ENERGY AND RENEWABLES: BUILDINGS AND FACILITIES

PROPOSED GOALS

- Reduce energy consumption, improve energy efficiency and reduce energy related costs.
- Support and promote the use of renewable forms of energy.
- Improve awareness of opportunities for energy efficiency and GHG emissions reductions.

By 2020:

- Reduce overall energy consumption and GHG emissions in the City and in municipal government operations by at least 20%.
- City of Kingston government will get at least 20% percent of its energy from renewables sources.

PROPOSED SUMMARY OF INITIATIVES

- Create a local financing mechanism for energy retrofits such as a Property Assessed Clean Energy (PACE) program.
- Adopt Local Energy Conservation Code.
- Provide training for local code enforcement on 2010 Energy Conservation Construction Code of New York State (ECCCNYS).
- Create and Adopt Local 'Green Building' Standards.
- Actively promote the use on 'on-bill financing' for residential energy efficiency home improvements.
- Explore potential for a 'Commercial Energy Policy.'
- Adopt a City Lighting Ordinance.
- Consider a Community Energy Awareness or Energy Challenge Program.
- Create, fund and sustain City 'Office of Energy & Sustainability.'
- Adopt and implement 'Municipal Energy Conservation Policy.'
- Create and implement 'Government Facility Energy Improvement Plan.'
- Upgrade street lights and traffic signals.
- Develop and implement 'Energy Efficiency Improvement Plan' for WWTP.
- Use Central Hudson's Energy Manager Program to track and manage energy use at the WWTP.
- Explore expanded use of Hess Demand Response Program.
- Adopt and implement 'Municipal Green Building Policy.'
- Adopt and implement 'Municipal Energy Efficient Procurement Policy.'
- Track and take advantage of federal, state and utility energy efficiency programs and Incentives.
- Conduct energy audits at all Kingston Housing Authority facilities to identify opportunities to reduce electricity and natural gas usage.
- Advance solar and geothermal renewable energy opportunities as part of City clean energy program.
- Explore Green Power Options and use of Renewable energy certificates (RECs).
- Remove barriers to and provide incentives to promote the use of renewable forms of energy in the City of Kingston.
- Monitor and evaluate energy usage and greenhouse emissions.
- Take advantage of USDOE Technical Assistance Programs.

CLIMATE ACTION PLAN SUMMARY
LAND USE, TRANSPORTATION

PROPOSED GOALS

- Capitalize on existing compact development and promote various modes of transportation and efficiency in providing public services and infrastructure.
- Reduce travel demand specifically that of single-occupancy private vehicles, reducing vehicles miles traveled in the City of Kingston.
- Improve existing sidewalk network to promote safe walking.
- Promote consistency and coordination between land use and transportation policies, improvements strategies and decision-making.
- Protect and enhance the environment, promote energy conservation, improve the quality of life.

By 2020

- 20% reduction of single occupancy vehicle use and VMTs.
- 20% increase in use of transit.
- 20% reduction in single occupancy vehicle commuting by City employees.
- Local sidewalks are all in good repair.
- Bike infrastructure is in place including designated bike lanes in appropriate places and bike racks at all public facilities implemented as a result of the City of Kingston Bicycling Master Plan.
- A network of trails, bike paths, and complete streets exist in the City of Kingston connecting rail trails from the Wallkill Valley, Rondout Valley, Catskill Mountains and Kingston Point to a Midtown Hub along the Broadway Corridor.

PROPOSED SUMMARY OF INITIATIVES

- As part of Comprehensive Master Plan and Zoning Code Update adopt goals and policies that promote a compact, transit-oriented, bikeable and walkable community; promote infill development; prohibit new development in floodplains and preserve and protect open space, biodiversity, and water supplies.
- Integrate sustainable development goals and initiatives of this Plan.
- Integrate and advance Transit Oriented Design.
- Promote and expand accessibility to transit.
- Expand promotion of Citibus, UCAT and other transit options.
- Promote ridesharing, car and van pooling by offering free or discounted parking within City.
- Actively support, promote and implement the City's Complete Street Policy.
- Develop a Bicycling Master Plan.
- Improve Bike Infrastructure, Create Bicycle Friendly Zones.
- Develop a Pedestrian Master Plan.
- Improve sidewalks.
- Support Safe Routes to School program.
- Create rail trails.
- Use the authority of the City's planning board to assure that new development projects reflect the community's desires for a low carbon/low emissions future.
- Develop City government policies that promote the use of transit, carpooling, vanpooling, flex scheduling, and examine tele-commuting where appropriate.

CLIMATE ACTION PLAN SUMMARY

VEHICLES

PROPOSED GOALS

- Improve overall government fleet fuel efficiency and reduce vehicle miles traveled.
- Promote and further the use of alternative fueled vehicles and alternative fueled transit technology.
- Reduce transportation related emissions.

By 2020:

- Electric vehicle infrastructure is in place at several locations city-wide, including municipal government facilities.
- City government has doubled the fuel efficiency of its fleet.
- Fuel usage (gas and diesel) has been reduced by 20%.
- 20% of City government vehicle fleet is hybrid and alternative fuel vehicles.
- Alternative-fueled Transit vehicles and refuse packers are part of the City hybrid and alternative fuel fleet.
- An active and successful car-share program exists in the City of Kingston.

PROPOSED SUMMARY OF INITIATIVES

- Explore the feasibility of planning, permitting, zoning, and providing infrastructure necessary to accommodate electric vehicles.
- Adopt local anti-idling ordinance.
- Promote the use of hybrid and alternative fueled vehicles.
- Develop a comprehensive and consistent City government vehicle fleet management program to better track fuel usage miles traveled and fuel efficiency of the City's fleet.
- 'Green' the City's Fleet by:
 - Doubling the overall current fuel efficiency of City Fleet by requiring minimum fuel efficiency for city owned vehicles.
 - Adopt goal of 20% of City fleet replaced with hybrid and alternative fuel vehicles by 2020.
 - Using smaller more fuel efficient vehicles for appropriate City tasks.
 - Explore the use of hybrid or other alternative fueled (propane, compressed natural gas) vehicles when new refuse packers and buses are purchased.
 - Initiated and promote car-sharing.
 - Examine and use idle-reduction technologies.
 - Explore the use of bio-diesel as appropriate.
 - Develop a clean diesel program.

CLIMATE ACTION PLAN SUMMARY

MATERIALS MANAGEMENT: WASTE REDUCTION, RE-USE, RECYCLING & COMPOSTING

PROPOSED GOALS

- Reduce the overall waste generated in the City of Kingston.
- Reduce the overall waste generated in City government operations.
- Promote waste reduction, re-use, recycling and composting.
- Reduce greenhouse gas emissions associated with the transportation and disposal of waste.

By 2020:

- Reduce the overall waste generated in the City of Kingston by 20%.
- Increase the overall recycling rates in the City of Kingston by 20%.
- Achieve an annual 10% reduction in overall annual waste generated in local government operations as measured against a base year of Fiscal Year 2013. (10% waste reduction per year beginning in FY 2013) Long-term Goal: Zero-waste.
- Achieve an annual 10 % reduction in annual paper use (copy and janitorial) as measured against a base year of FY2013. (10% paper use reduction per year beginning in FY2013).

PROPOSED SUMMARY OF INITIATIVES

- Develop Materials Management Plan for City of Kingston.
- Establish a 'Pay-As-You-Throw' Program.
- Establishing waste reduction and recycling standards for local building and development.
- Consider a local ban or fee on throw-away plastic and paper bags.
- Develop a recycling marketing campaign to promote waste reduction, reuse, recycling and composting programs.
- Consider feasibility of instituting a curbside food waste collection.
- Create, fund and sustain a recycling enforcement program.
- Develop a City Government Waste Reduction and Recycling Policy, Plan and Program
 - Establish procedures to track total municipal government waste generated.
 - Conduct baseline waste audit.
 - Conduct periodic waste audits.
 - Adopt a zero-waste goal.
 - Develop City government waste reduction program.
 - Develop City department waste reduction and recycling plans.
 - Provide training for City staff on re-use, waste reduction and recycling programs.
- Adopt a Local Government Paper Use Reduction Policy.
- Adopt a Local Government Environmentally Preferable Product or 'Green' Procurement Policy.

CLIMATE ACTION PLAN SUMMARY

SUSTAINABLE RESOURCE MANAGEMENT

PROPOSED GOALS

- Promote the use of ‘green infrastructure.’
- Protect water resources, reduce water usage and associated energy costs.
- Reduce water and energy inputs associated with landscape management.
- Plant, manage, maintain and protect street trees and urban forests.
- Promote local food production.
- Integrate sustainable practices in building operations and maintenance.

By 2020:

- 30 rain gardens have been created in the City, 15 on City owned property.
- Pervious pavement or pavers are being used to repave City lots and streets.
- Water and energy use at all City buildings and facilities is being tracked and monitored.
- [WaterSense](#) high efficiency water saving fixtures are being used to replace or upgrade fixtures in City owned buildings.
- The number of community and school gardens has doubled.
- Each school and city building has developed a successful ‘green’ cleaning program.

PROPOSED SUMMARY OF INITIATIVES

Water Conservation and Efficiency

- Adopt a local ‘green infrastructure’ ordinance.
- Establish standards and guidelines to encourage or require the use of ‘green infrastructure.’
- Encourage the development of ‘green infrastructure’ by providing outreach and guidance consistent with the building code.
- Use, demonstrate and promote green infrastructure in City projects, on City properties.
- Consider requiring new construction & major renovations to install [WaterSense](#) high efficiency water saving fixtures.
- Establish a Water Use Reduction Policy for government buildings and facilities.
- City government should use EPA’s Portfolio Manager or similar software to track City government water use.
- Encourage local businesses to track energy and water use with EPA Portfolio Manager.
- To promote *WaterSense* and water efficiency it is recommended that the City of Kingston become an EPA *WaterSense* partner.
- Identify and implement energy efficiency and renewable energy projects opportunities to improve the overall energy efficiency of the Kingston water delivery system.

Landscape Management

- Enhance municipal codes and regulations to:
 - Encourage non-toxic land management practices.
 - Encourage and promote the use of native plants.
 - Encourage and promote the use of water conserving landscape plants and techniques known as xeriscaping.
 - Support and strengthen tree planting and management.
 - Integrate standard ‘green’ principles for tree planting and permeability requirements.

CLIMATE ACTION PLAN SUMMARY

SUSTAINABLE RESOURCE MANAGEMENT

PROPOSED SUMMARY OF INITIATIVES

Landscape Management continued

- Support the Kingston Tree Commission's efforts to strengthen local codes, fund tree planting and maintenance initiatives, and promote urban forestry.
- Consider the development of a comprehensive Urban Forestry Master Plan as part of the Comprehensive Master Planning process.
- Develop best practices to advance the health of street trees and the use of trees to conserve water and energy.
- Use and promote the use of native plants.
- Use and promote the use of water conserving landscape plants and techniques known as xeriscaping.
- Adopt a non-toxic landscape management policy to eliminate or reduce the amount of fertilizers and pesticides used on City owned properties.
- Develop and adopt a procedure to improve the tracking of fuel usage by off road landscape equipment so as to be able to better manage it.
- Evaluate, initiate and implement a reduced mowing program for City-owned properties.
- Actively support and promote "*LEAVE IT ON THE LAWN, KINGSTON!*" Leaf Management Plan.

Local Food Production

It is recommended that the City:

- Continue to actively support the efforts to advance community and school gardens in the City of Kingston to encourage local food production.
- Work with the Kingston Land Trust, Kingston CAC, Kingston Schools and others to provide financial and other resources needed to advance local food production.
- 'Grow' the number of community gardens.
- Continue to support programs such as 'The Dig Kids.'
- Actively support and promote the Kingston Farmers Market.
- Use local produce and local food products at City events, meetings etc.
- Promote the use of locally produced food and local products.
- Start a City government employee operated community garden.

Sustainable Building Operation and Maintenance

It is recommended that the City:

- Adopt local 'green' building standards that encourage, supports and promote sustainable green operations and maintenance for existing commercial buildings within the City.
- Work with the Kingston Business Alliance and others to promote 'green' practices to help business owners reduce energy use, reduce waste and provide a healthier work environment for employees.
- Work with the Kingston CAC, the Kingston City School District as well as private schools, day care centers and pre-schools to support the development and implementation of 'green' cleaning programs.
- Create and implement a non-toxic or 'green' cleaning program for all City of Kingston buildings and facilities using the NY State green cleaning program as a resource.
- Create and implement an Environmentally Preferable or 'Sustainable' Purchasing Policy.
- Create, fund and sustain City Office of Energy & Sustainability.

CLIMATE ACTION PLAN SUMMARY

OUTREACH EDUCATION AND TRAINING

PROPOSED GOALS

- Engage people who live, work and play in the City of Kingston in energy and climate action.
- Improve awareness of opportunities to improve energy efficiency and reduce GHG emissions.
- Promote and create 'green' jobs.
- Empower and expand the Climate Smart and Green Jobs Community Task Force.

PROPOSED SUMMARY OF INITIATIVES

- Develop strategic partnerships to advance energy efficiency and renewable energy in the City of Kingston.
- Use City facilities to demonstrate energy leadership and existing environmental education programs to advance energy awareness and sustainability.
- Continue to integrate sustainability education into the City's overall education and interpretation programming, with topics such as energy conservation and renewable energy.
- Work with local partners to determine the potential to successfully engage the community in an energy challenge program or energy awareness in the City of Kingston. Energy Awareness and Outreach should envelop the energy programs and incentives available through NYSERDA, Central Hudson and other federal and state agencies.
- Develop a well-designed Sustainability Ambassador Program, involving key city leaders as trained and recognized ambassadors to advance the goals of the Plan.
- Use web-based social networking tools to engage the community in plan implementation the energy and local climate action.
- 'Brand' this effort as 'Sustainable Kingston' or 'Kool Kingston'.
- Maintain the Climate Action page on the City's web site.
- Develop a separate 'Sustainable Kingston' web page.
- Develop a simple tri-fold brochure on 'Reducing Your Ecological Footprint' with a particular focus on energy saving and money saving tips that will also benefit the environment.
- Integrate the goals and initiatives of the draft Climate Action Plan into the current Comprehensive Plan outreach and communications.
- Create Green Jobs through implementation of the Plan.
- Organize a regional 'Energy, Climate and Green Jobs Conference' in the City of Kingston.
- The City adopt an energy efficiency and conservation policy providing for the training and education of City employees.
- Develop a comprehensive energy and sustainability training program for City government personnel.
- Develop specific sustainability training modules on energy conservation, waste reduction and recycling and green procurement.
- Obtain and distribute free materials from NYSERDA and others to encourage community and staff to participate in reducing energy consumption.
- Adopt a resolution recognizing Task Force as an official body of the City government; rename the Task Force as the 'Energy and Sustainability Task Force' and expand the membership and role of the Task Force by appointing and encouraging active participation of City departments.

CLIMATE ACTION PLAN SUMMARY

CLIMATE ADAPTATION

PROPOSED GOAL

- A commitment, a Plan and systems are in place to be prepared for and adapt to a changing climate.

PROPOSED SUMMARY OF INITIATIVES

- Prepare and adopt a City of Kingston Climate Adaptation Plan.
- Integrate climate adaptation planning, preparation and response, including sea level rise, flooding, threats to the local drinking water supply, changes in precipitation and temperature and the associated public health risks into the Comprehensive Master Planning and Zoning Update process.
- Utilize and adapt existing reports, plans, and studies to assess local impacts of a changing climate.
- Conduct additional local and on-site analysis of potential impacts and risks, if necessary and feasible.
- Assess potential risk to the local water supply and prepare accordingly.
- Identify and address climate/environmental justice areas in the City.
- Involve all sectors of City government, including emergency management.
- Involve stakeholders and actively seek expert advice in Plan development and implementation.
- Evaluate alternative adaptation strategies based risk, costs, and benefits to human and natural systems.
- Carry out targeted and general outreach on climate change adaptation issues and actions.
- Collaborate with neighboring municipalities and county government, to plan, prioritize and implement climate preparedness actions that are best accomplished on a larger scale.
- Create a 'Citizen Science Monitoring Program.'
- Utilize the climate adaptation resources offered through the City of Kingston ICLEI membership.
- Adopt a local policy to consider climate change for all capital projects.
- Integrate impacts of climate change and appropriate measures into current effort to address stormwater and intermittent flooding conditions in the City.

NEXT STEPS

The easy part, drafting this Plan has been done. The hard part, putting this plan into action is the challenge that lies ahead.

With release of this Draft Plan, the Climate Smart and Green Jobs Community Task Force is seeking additional stakeholder input on the initial climate action planning work that has been done over the past year.

Over the coming months the Task Force will be actively looking to engage the Common Council, City government staff and the community in the review, prioritization and implementation of the proposed goals and initiatives.

Community review of recommended goals and initiatives should be based on the City's priorities and constraints taking into consideration the triple bottom line of sustainability – people, planet and profits.

Reviewing and prioritizing initiatives for implementation will require consideration of what can be accomplished in the near-term with limited resources and what initiatives are more long-term efforts.

The Climate Smart and Green Jobs Community Task Force will also want to work with the community, the Common Council and the Mayor to have the Climate Action Plan formally adopted by the Common Council as City of Kingston policy and intent. Members of the Climate Smart and Green Jobs Community Task Force will also want to be actively engaged in the Comprehensive Master Plan and Zoning Update process. Members of the Task Force should work closely with the City Planning Department, the Comprehensive Plan Steering and Advisory Committees to integrate the goals and initiatives of the CAP into the Comprehensive Master Plan and new Zoning Code.

In addition it will important for the Task Force and City to aggressively seek funding to implement the goals and initiatives of the Plan.

While this Plan primarily addresses the reduction of energy use and greenhouse gas emissions, as the effects of climate change become more common and severe, local government adaptation policies will be fundamental in preserving the welfare of residents and businesses. Rising waters along the Hudson River and Rondout Creek, intensified and extreme weather which will result in amplified severity of flood events make it imperative for the City of Kingston to determine how it will adjust and cope with the impacts of climate change. A full analysis of the vulnerabilities of the City of Kingston to a changing climate and development and implementation of an adaptation plan to improve resiliency to climate change is a critical next step for the City of Kingston.