

# 2011

## City of Kingston Environmental Program

### Annual Report



Hasbrouck Park – Kingston’s First Downtown Park



Prepared by Steve and Julie Noble, Environmental Educators  
City of Kingston, Parks and Recreation Department



# **The Importance of the Environmental Program**

Since 2005, the City of Kingston’s environmental education staff has helped the City become a leader in environmental awareness and stewardship. Kingston is one of only a few small communities in the country to focus this creative energy to solving environmental issues, while also developing unique programs designed to save taxpayer dollars and leverage public and private investments, while educating the public about the local environment. Kingston’s environmental program strives to make Kingston a sustainable and healthy community for its citizens and visitors and has grown to include programs and activities in the areas of environmental education and environmental services. Each of these areas are detailed in the following report.

## **Trends in 2011**

City environmental education staff acknowledges the growing “green movement,” which recognizes the economic advantages of smart, high performing sustainable practices, and has continued to educate Kingston citizens and visitors on this topic. Staff has observed the influence and growth of the green economy and has increasingly used that awareness to identify growth opportunities and the potential to improve the quality of life in Kingston.

Staff continues to develop unique and fun ways to connect youth to the outdoors at a time when prevailing lifestyles have led to decreased time and activities outside for all age levels.

During the year, staff continued to refine the environmental education programs by focusing on and promoting sustainable solutions through the education of adults and children and increased program access by instituting online program registration.

Recognizing its tremendous influence on everyone’s lives, staff embraced social media and began incorporating it as one of the elements of communication with members and visitors.

During 2011, staff was successful in the development and award of various local, state and federal funds allowing the City to capitalize on the sustainability and efficiency movement sweeping America. During this time, grant funding was very competitive, which allowed staff to work more cooperatively with outside agencies and not for profit organizations to continue to further the City’s goals.

### **Staff**

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# Environmental Education

## *School Programs*

Number of Individual Programs	<b>168</b>
Types of Programs	<b>20</b>
Number of Schools/Groups	<b>22</b>
Number of Classes/Teachers	<b>104</b>
Number of Students, New	<b>2476</b>
Number of Students, Returning	<b>1499</b>
Total Number of Experiences	<b>3975</b>
Transportation Fees Generated	<b>\$947.05</b>
Supported in part by: The Ulster County Youth Bureau, Office of Children and Family Services; Learn and Serve America; NYS DEC and DOS Watershed Grants; NYS DEC Recycling Grant	



### Program Highlights

Environmental education staff deliver outdoor, nature based, environmental education programs including: Hudson River Ecology, Forsyth Nature Center Zoology, Hasbrouck Park Forest Hike and others. Additionally, indoor programs are hosted at the schools with themes including recycling, watersheds, and gardening. Programs are made possible through a variety of grant sources, allowing them to be either free or low cost for schools. This program serves all schools in the Kingston School District as well as other districts within Ulster County.

The Fall of 2011 marked the first time teachers were able to register for City of Kingston Environmental Education school programming online. This drastically reduced the amount of work needed to solicit, organize and register teachers and their classes. This online system was developed in house and made possible through the Friends of Forsyth Nature Center and a private donor.

### Goals/Vision for 2012

- Work to reach even more students at John F. Kennedy Elementary, Bailey Middle School, Kingston High School, Kingston Catholic, St. Joseph's and Good Shepherd
- Better marketing to schools outside of the Kingston area
- Secure additional funding for programs
- Build a volunteer base for tour guides when staff is not available
- Make program extensions feasible so that teachers use parks as classrooms on their own

## Free Public Environmental Programs

<b>Public Programs 2011</b>	
Number of Programs	<b>27</b>
Types of Programs	<b>12</b>
Number of Youth Participants	<b>2099</b>
Number of Adult Participants	<b>2165</b>
Supported in part by: The Ulster County Youth Bureau, Office of Children and Family Services; NYS DEC and DOS Watershed Grants; NYS DEC Recycling Grant; NYS DEC Clean Air Grant; ALCOA Foundation	



### Program Highlights

Public environmental programming, marketed under the “Forsyth Nature Center,” includes an array of free or low cost family programs, offered at the Forsyth Nature Center and Kingston Point Park in Kingston. These programs include animal based experiences like Feathered Friends, Reptiles and Amphibians and Turtle Talk, as well as hikes, and maple sugaring. The Forsyth Nature Center also cooperatively works with the John Burroughs Natural History Society to offer a variety of birding programs free of charge to the public.

Public environmental programming continued to grow during 2011, with the addition of a newly developed Forsyth Nature Center website, funded by the Friends of Forsyth Nature Center and developed and maintained by the environmental education staff. This website provides information about the Forsyth Nature Center, up to date programs, calendars, directions and contact information to the general public. Web site usage continues to grow and logged nearly 8,000 new visitors in 2011.

With the help of grant funding, all animal based and walk/hike programs were provided at no charge to city residents and visitors. This allows the Forsyth Nature Center to continue to welcome people of all income levels the opportunity to experience high quality, family oriented programs right here in their community.

### Goals/Vision for 2012

- Increased participation by Kingston residents and local visitors
- Improved marketing of programs
- There are often programs that need to be cancelled due to lack of registrants
- Improved online registration, for better tracking and efficiency

## Private Programs and Paid Public Programs

<b>Private Programs including Eco Tours, and Forsyth Nature Center Birthday Parties</b>	
Number of Individual Programs	<b>21</b>
Types of Programs	<b>9</b>
Number of Youth Participants	<b>605</b>
Number of Adult Participants	<b>61</b>
Program Revenue	<b>\$2,058</b>



### Program Highlights

Over the course of the year, environmental education staff work with a variety of scout groups, youth and recreation programs, senior groups, libraries and child care centers like the Children’s Home of Kingston and local nursery schools.

Programs ranged from Kayaking 101, to Forsyth Nature Center tours, and off site animal programs. Additionally, nature center staff hosts Forsyth Nature Center (FNC) Birthday Parties at the FNC. Participants are able to utilize the nature center gazebo and receive a guided tour for a fee. Each year, nature center staff also leads Eco Tours. These adult based programs take place usually twice a year and visit a variety of natural areas in the Mid-Atlantic and Northeast. This year, only one program was held due to a trip cancelation during Tropical Storm Irene.

### Goals/Vision for 2012

- Increase use of FNC gazebo with birthday parties and private gatherings
- Work closer with regional Boy Scout and Girl Scout program leaders to spread Nature Center programming opportunities
- Develop feature on FNC website to make it easier for private groups to book programs

## *Junior Naturalist Program*

<b>Junior Naturalist 2011</b>	
Number of Participants	77
Program Revenue	\$15,255



### Program Highlights

The Junior Naturalist Program is a two week nature program for children in Grades K-7<sup>th</sup>, (one week for 6 and 7<sup>th</sup> graders). This hands on, environmental education program is a summer program offered daily from 9am-3pm. During this program, educators facilitate environmentally themed activities, in various natural areas in and around Kingston. This program provides youth the freedom to experience the outdoors in the summer, but maintains a strong academic component which enriches the students' outdoor experiences. This program is open to both Kingston and non-Kingston residents.

Since 2006, the Junior Naturalist Program has consistently enrolled a significant number of youth, with a total of 77 in 2011. This program provides a complete, affordable, educational outdoor experience for youth in the Kingston area. This year program participants were able to participate in a variety of outdoor activities like kayaking, swimming, hiking and even mountain biking. These programs are designed to strengthen our youth's connections to the outdoors while building respect of the Kingston Parks System.

### Goals/Vision for 2012

- Fill the 6<sup>th</sup> and 7<sup>th</sup> grade adventure week enrollment to capacity
- Hire additional staff to expand the program
- Space and bathroom improvements at the FNC to accommodate additional programming

## Guided Kayaking Tours

Kayaking Programs 2011	
Number of Programs	23
Number of Program Participants	115
Program Revenue	\$3,961.69
Kayak Festival Participants	120



### Program Highlights

Three different types of nature based kayaking programs are offered on weekends by the Parks and Recreation Department, (weather dependent) from Memorial Day through Labor Day. In 2011, one of the Kayak Storage Buildings was moved to a more accessible location, with additional parking and easier access, on the Rondout Creek waterfront. This building is now located beneath the Wurts Street Bridge, adjacent to the Public Kayak Dock. This location was utilized on Friday evenings as a program launch site and directly contributed to ecotourism as program participants are encouraged to visit the Rondout and its many shops and restaurants before and after kayaking. The program continued to offer kayak tours twice a day on Saturdays, launching from Kingston Point Beach.

An online program registration form and payment option was initiated for this program for the 2011 season. This amenity greatly decreased the amount of office work required to register participants and eliminated the need to collect cash for program fees offsite during the weekend hours. It also eliminated the number of absentee registrants and late cancelations, due to the online reservation and payment system commitment.

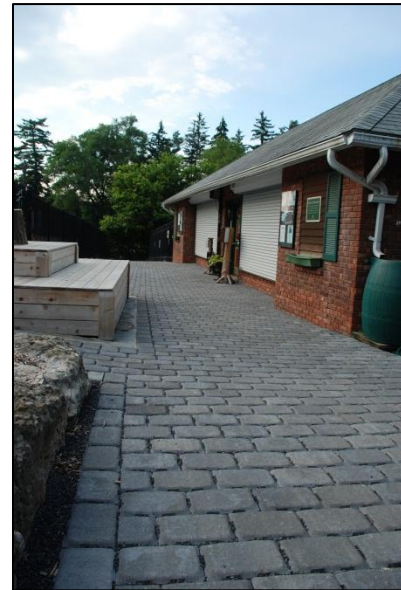
### Goals/Vision for 2012

Into the future, the Kingston Kayak Program will continue to evolve with market trends. In 2005, when the program was first launched, very few people had kayaks and were very interested in programs that both had a guide and provided equipment. While that need still exists in 2012, more kayakers are interested in using their own gear, while also taking part in the educational journey.

- The 2012 program may expand to offer more opportunities for individuals with kayaks and some basic skills, while still offering basic kayakers with little or no skill an introductory program
- Equipment upgrades will continue as the Kingston Parks and Recreation Department continues to work closely with its partner, Kenco Outfitters, which co-sponsors the Kingston Kayak Festival and directs many clients to the City's guided kayaking programs

## *Forsyth Nature Center Facility and Exhibits*

<b>Forsyth Nature Center 2011</b>	
Number of Visitors	40,000+
Number of Animals	150
Number of Animal Exhibits	24
Number of Gardens/Educational Areas	12



### Program Highlights

2011 was a year of change at the Forsyth Nature Center. The Forsyth Nature Center (FNC), which celebrated its 75<sup>th</sup> year, is managed by Mark DeDea, Caretaker and is a City of Kingston Parks and Recreation Facility. The FNC is open every day of the year and is free to all visitors. This unique educational facility is one of a kind in this area and welcomes visitors from Kingston and beyond as a destination for families.

During 2011, the facility had a large turnover with the passing of a few of its longtime residents including; Trudy the Llama, Isaac the Bull, and Cream the Fallow Deer. Each of these animals was well loved by each of the visitors and staff at the facility.

The Forsyth Nature Center was able to welcome a few new animals to the facility in 2011 including Teddy and Abe, two Llamas who were rescued from Montana, as well as Veronica, the Turkey Vulture, several flying squirrels, two corn snakes, one jungle python and several beautiful Golden Pheasants.

2011 was one of the warmest on record for the annual Friends of Forsyth Nature Center Fall Festival in October, which drew approximately 4,000 people and raised over \$10,000 to continue to rejuvenate the facility, thanks in large part to the efforts of the Friends of Forsyth Nature Center (FFNC), a 501c3 organization. The FFNC is a not for profit organization, with a goal of supporting the facility and programs of the Forsyth Nature Center.

### Goals/Vision for 2012

Into the future, the Forsyth Nature Center will continue to grow and expand. The recent award of the NYS Office of Parks, Recreation and Historic Preservation's Zoos, Botanical Gardens and Aquarium Grant Program will allow for expansion of environmental programs focusing on native animals, and also the acquisition of and care for additional native animals at the facility in the coming year.



# Environmental Services

## *Recycling/Waste Reduction Coordination*

<b>Waste Reduction Programs</b>	
ALCOA Composting 101 Programs	<b>2</b>
Number of participants	<b>154</b>
Pounds of food waste diverted from trash	<b>12,168</b>
Pounds of food waste diverted in 19 City of Kingston Households in the study	<b>4,446</b>
Annual City of Kingston Savings (from 19 families)	<b>\$170</b>
Single Stream Recycling Bins and Brochures Distributed (as of 12/31/11)	<b>1906</b>
School Recycling Programs	
Number of Programs	<b>33</b>
Number of Student Participants	<b>739</b>
Supported in part by: NYS Energy Research Development Authority, NYS DEC Recycling Grant Program, ALCOA Foundation, Friends of Forsyth Nature Center	



### Program Highlights

#### Single Stream Recycling Program

Into 2011 City environmental education staff worked with the Department of Public Works, New York State Energy Research Development Authority and the New York State Department of Environmental Conservation to implement a grant funded program to create a more efficient and productive recycling system in the City of Kingston while also reducing trash generated and disposed of by the City of Kingston. The major components of this program are: 1) the distribution of 3000, 96 Gallon Single Stream Recycling Totes with Radio Frequency Identification Devices (RFID), 2) the outfitting of two DPW recycling trucks with on board computer systems, featuring RFID readers, GPS Equipment and a computer system and 3) the development, distribution and public educational programs of new recycling policies and procedures. This program will allow the City of Kingston to increase recycling rates, track participation rates, and reduce operating expenses for the Department of Public Works.

## Recycling Education

City environmental education staff offer a series of public recycling programs, throughout the year to educate both the general public as well as school children to the benefits of recycling. Each school year, staff works in each elementary school which serves City of Kingston students to provide informative and age appropriate recycling programs.

## Composting Education

A series of composting education workshops were held in 2011, with additional programs in 2012 funded through a grant from the ALCOA Foundation. These workshops allow Kingston residents to reduce their trash output through food and yard waste diversion. Additionally, the process of composting generates free natural fertilizer for in and at home use reducing the need for synthetic chemical landscape applications.

## Goals/Vision for 2012

- Increased community awareness and understanding of recycling rules and regulations
- Roll out new Single Stream Totes to the entire Kingston population
- Move Kingston to volume based waste collection after successful implementation of trial in 2012
- Increased home and commercial composting, and the development of an online composting registry to track and quantify the amount of food waste being diverted city-wide
- Increased recycling rates city-wide
- Develop rewards program for recycling participants



Kingston Daily Freeman (August, 2011)

## *Clean Sweep 2011*



Working with the Friends of Historic Kingston, environmental education staff was able to bring together 200 volunteers to collect nearly two tons of litter and 9 tons of yard waste and debris from the Broadway Corridor as part of the Clean Sweep 2011 program. This was the second annual clean-up of this type. The Friends of Historic Kingston partnered with over a dozen different community groups and local school children utilizing the Forsyth Nature Center's online program registration form to register volunteers for a variety of clean up locations. This successful program will take place again on Earth Day, April 22, 2012.

### Goals/Vision for 2012

- Each school in the Kingston area participates
- 20+ groups join, 250+ participants

## Green Infrastructure Projects



*Porous Asphalt Parking Lot at Forsyth Nature Center*

*Porous Pavers at Forsyth Nature Center*

### Program Highlights

Green Infrastructure improvements are a method of storm water management that ensures environmental sustainability. Green infrastructure practices manage storm water runoff while maintaining or restoring natural hydrology and consist of practices such as rain gardens, bioretention areas, green roofs, porous pavements and cisterns.

#### Porous Pavers at Forsyth Nature Center

The Friends of Forsyth Nature Center have begun a capital improvement project within the FNC by replacing existing deteriorating asphalt with porous pavers on the main pathway around the facility.

The Forsyth Nature Center was built in 1936 and suffers from poor drainage. In an effort to mitigate storm water runoff, this project's scope is to 1) remove existing asphalt for recycling; 2) place an 8"-10" crushed stone base; 3) and replace the existing walkway footprint with porous pavers.

While improving the environment, this project improves the appearance and functionality of the walkway, while also maintaining handicapped accessibility at the Nature Center. A facility that has been open to the community for 75 years, with 40,000 visitors annually there is a significant amount of foot traffic, leading to wear and tear on the infrastructure. Each visitor uses the walkway to explore the exhibits of the Nature Center, including a large population of visitors with strollers, young children and people using wheelchairs.

## Porous Asphalt Parking Lot at Forsyth Nature Center

The city environmental education staff worked with the NYS Department of Environmental Conservation to identify this site as a possible green infrastructure site. What resulted was an Environmental Benefits Project, initiated by the DEC and Callanan Industries. This porous asphalt project established a 35 spot formal parking area, by removing existing asphalt and replacing it with a unique product designed to allow rain and stormwater to infiltrate through, eliminating runoff from the site.



## Ulster County Department of the Environment Demonstration Rain Garden

This project, a partnership between the UC Department of the Environment, Cornell Cooperative Extension of Ulster County, the Friends of Forsyth Nature Center, City of Kingston and the ALCOA Foundation led to the first rain garden installation within the City of Kingston. Located at 17 Pearl Street, a former home converted to office space, this was an ideal setting for this practical application and will continue to be a location for on-site stormwater education. Rain gardens are designed to capture roof runoff and to increase infiltration into the soil through the use of native, water loving plants that prevent the runoff of water into the storm sewer system.

### Goals/Vision for 2012

- In 2012, an additional small scale Green Infrastructure Project will occur on city property, targeted at reducing stormwater and reducing the number of Combined Sewer Overflows occurring on a yearly basis. Examples could include an additional rain garden, additional porous pavement installations on new developments and retrofit of existing infrastructure
- Research for additional funding for a large scale green infrastructure project

## *Learn and Serve America School and Community Gardening Initiative*

<b>Learn and Serve America Garden Mini-Grants Program</b>	
Number of Gardens Funded, 2011	<b>21</b>
Number of New Gardens Started 2011	<b>10</b>
Number of Youth Participants	<b>1836</b>
Number of Adults Participants	<b>363</b>
Number of pounds of produce donated to those in need in the community (6 gardens reporting)	<b>360+</b>



### Program Highlights

In 2011, youth and adults participated in designing, preparing, building, growing and maintaining food gardens in Ulster County through the Learn and Serve America (LSA) Program. These numbers are doubled from last year's numbers. The Kingston Parks and Recreation Department hired Garden Interns to assist with this program.

The environmental education staff administered mini-grants to all schools in the Kingston City School District and to any school and non-profit organization in Ulster County. In total, 21 gardens were funded. Each group was given advice and recommendations on their projects and were provided tools and materials through Herzog's Home Center and networking and resources through the environmental education staff.

A new addition for this year's LSA grant programming was the Gardening in the Classroom program. This was a hands on learning program, conducted during the early spring, that educated students and teachers about gardening, the value of getting outdoors and connected to the earth. The program connected physical gardening with the in-school curriculum using a variety of gardening curricula and literature as well as activities in and outdoors. Each class designed garden layouts and

planted seeds to get their gardens started indoors to be transplanted later in the school year. In 2011, 571 students from 9 schools participated in the Gardening in the Classroom Program.

Complete List of 2011 LSA Garden Mini-Grantees

- |  |   |
|--|---|
| 1. Anna Devine Elementary School               | 12. Pine Hill Community Center                      |
| 2. Sophie Finn Elementary School               | 13. Mental Health Association of Ulster County      |
| 3. Chambers Elementary School                  | 14. South Pine Street City Farm                     |
| 4. Zena Elementary School                      | 15. Angelfood East (at St. John's Episcopal Church) |
| 5. Miller Middle School                        | 16. YMCA of Kingston                                |
| 6. Kingston High School                        | 17. Resource Center for Accessible Living           |
| 7. Livingston Street Early Childhood Community | 18. Family of Ellenville "Aiyana Garden"            |
| 8. Marbletown Elementary School                | 19. Ulster County Bar Association                   |
| 9. Rondout Valley Middle School                | 20. Woodstock Elementary School                     |
| 10. Kingston Catholic School                   | 21. Town of Kingston (Town Hall)                    |
| 11. Boys and Girls Club of Kingston            |   |

Goals/Visions for 2012

- Provide support and resources to the four Kingston City Schools that do not have food gardens (Myer, Bailey, JFK, Robert Graves)
- Maintain networking and support levels with previous LSA participants, follow up with all past grant recipients
- Secure additional sources of funding for continued programming after 2012



**YMCA Children's Garden**

# Stormwater Program

## Program Highlights

### Successful Department of Environmental Conservation Five Year Audit

Environmental Education staff assisted the City of Kingston Engineering Department with a successful DEC Stormwater Audit. This audit is done every few years to ensure the city's compliance with EPA's and NYS DEC's Municipal Stormwater Regulations. Kingston ranked very highly, though the DEC noted that the Department of Public Works needs to do a better job recording work done on the city's stormwater system.

### Annual Reporting and Stormwater Outfall Mapping

Annually, environmental education staff assists the Engineering Department with the completion of the City of Kingston Annual Stormwater Report, measuring the City's adherence to the Municipal Stormwater Regulations as well as documenting any illicit discharges into the stormwater system. In addition to the report, environmental education staff assisted with the annual stormwater outfall monitoring requirements, in which staff visit and inspect each stormwater outfall.

### GIS Program

The City of Kingston acquired a license for a Geographic Information System (GIS) software package that will allow Kingston to continue to develop its geospatial mapping and data gathering programs. Environmental education staff have training in GIS and are working to connect it with various city departments in numerous applications.

### ALCOA Rain Barrel Program

Number of Participating Households	48
Number of Participants	100
Gallons of water retained and diverted from storm system	(48 x 28 wks x 46.39 gal) <b>62,348.16</b>



This project allowed the environmental education staff to distribute rain barrels to Kingston area households to measure the amount of stormwater collected and diverted each week. This program finished its first year in 2011 and will wrap up in 2012.

### Goals/Vision for 2012

- Increased Stormwater diversion through Green Infrastructure and Rain Barrel Education Programs (Two Rain Barrel programs are scheduled for 2012)
- Train additional city staff on use of GIS Equipment



## *City of Kingston Watershed/Waterway Program*

### Program Highlights

#### NYS Department of State – Watershed Grant

In 2011, the City of Kingston was awarded a \$126,000 grant to develop a watershed management plan for the tidal Rondout Creek, encompassing the City of Kingston, Town of Ulster and Town of Esopus. The City of Kingston environmental education staff will lead this effort and developed an RFP to hire a qualified consultant to assist with developing the Watershed Management Plan. This work will commence in 2012.

#### NYS DEC – Urban Stormwater Grant

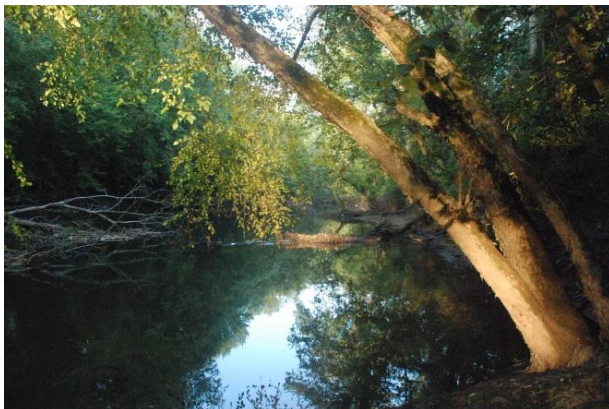
In 2011, the City of Kingston was awarded a \$60,000 Hudson River Estuary Program Grant to develop an Urban Stormwater GIS Mapping Program, as well as an educational program revolving around green infrastructure and urban runoff. This program will kick off in 2012 and be led by the environmental education staff.

#### Lower Esopus Watershed Partnership

The City of Kingston has supported an inter-municipal effort to bring awareness and scientific understanding of the Lower Esopus Creek, working cooperatively with municipalities and not for profit organizations along the Lower Esopus Creek. This partnership spent much of 2011 working on turbidity issues in the Lower Esopus Creek, and is currently working with the NYC Department of Environmental Protection, the DEC, and Ulster County, to come up with a solution to this complicated problem. Environmental education staff worked cooperatively with the City Engineering office on these matters.

#### Goals/Vision for 2012

- Improve access to the Esopus Creek (no current access in the City limits), Hudson River and Rondout Creek in the City of Kingston
- Work to educate the public on complex, environmental problems related to our local watersheds
- Continue to build community partnerships and represent the interests of the City in various working groups, grant projects and state level initiatives



Esopus Creek 2009



12/18/10 Lower Esopus during Turbid Water Release (HMR Bridge, Marbletown)

## Energy Management

### Program Highlights

#### Energy Usage/Greenhouse Gas Municipal Data Collection/Study

Environmental education staff achieved a New York State Energy Research Development Authority grant to hire an Energy Manager/Climate Analyst for a one year full time position to develop a baseline energy usage/greenhouse gas emissions report, along with a Climate Action Plan for the City of Kingston. Environmental education staff supervises this employee with the assistance of the City Engineer. These energy documents will be completed by March of 2012 and will help city leaders and staff both identify energy costs and demands, and to implement energy saving projects in the coming year. A goal of this effort is to meet state energy goals of reducing energy usage by 20% by 2020.

**City of Kingston Energy Cost Summary by Sector/Department**

<b>City of Kingston Energy Costs</b>	<b>2010 Total Energy Cost</b>	<b>% of Total Government Costs</b>
Public Lighting – Street lights, traffic signals, park lighting, other	\$524,620	31
Wastewater Treatment	\$327,481	20
Department of Public Works	\$185,729	11
Kingston Police Department	\$183,474	11
Parks & Recreation	\$107,561	6
Kingston Water Department	\$97,034	6
Citibus	\$87,195	5
Kingston Fire Department	\$75,116	4
City Hall	\$61,262	4
Dietz Stadium	\$19,564	1
Lighthouse	\$394	0
<b>TOTAL</b>	<b>\$1,669,430</b>	
<b>Employee Commute</b>	<b>\$119,904</b>	
<b>TOTAL</b>	<b>\$1,789,334</b>	

## Lighting Upgrade at Andy Murphy Neighborhood Center

Environmental education staff, working with Parks and Recreation Superintendent, Kevin Gilfeather took advantage of a Central Hudson lighting replacement program which enabled the replacement of the Andy Murphy Neighborhood Center gym lights with energy efficient lighting and controls. This project was free for the City of Kingston and is expected to generate \$1,000 in annual energy savings with the new lighting fixtures.



## Solar/Geo Thermal Projects

During 2011, a series of Solar and Geothermal feasibility meetings were held with city staff, elected officials and the general public to better understand available technologies and use within a municipal environment. These discussions led to a tour of a working Solar Panel manufacturing facility at TechCity, as well as a letter of intent with a Geothermal Company. These discussions are ongoing into 2012.

## Goals/Vision for 2012

- Solar Installation on City Property
- Additional energy upgrades as per recommendations in new Climate Action Plan
- Secure funding to extend Energy Manager/Climate Analyst Position
- Build a community awareness campaign to educate the public about renewable energy options

## *Cornell Cooperative Extension Partnerships*



### Program Highlights

#### Healthy Kingston for Kids

The City of Kingston is in partnership with Cornell Cooperative Extension of Ulster County (CCEUC) to reverse the childhood obesity epidemic in Kingston through environmental and policy change. The project is funded by the Robert Wood Johnson Foundation with \$360,000 over four years. This initiative proposes to: 1) make non-motorized transport accessible to children throughout the city for traveling to schools and parks, 2) proliferate community and school gardens and access to local produce, and 3) provide healthier snacks to children during the afterschool hours at school, in afterschool programs, and at school sports events.

In 2011, the City's environmental education staff co-chaired two of this initiative's committees: the School and Community Garden Committee and the Safe Routes to Schools/Parks Committee.

The Garden Committee's primary objective is to proliferate community and school gardens throughout the city. In 2011, the environmental educators worked with community members, parents, teachers, and youth to obtain access to resources for the construction and practical use of gardens and worked with garden stewards to successfully create community and school gardens. Also in 2011, new school garden language was successfully added into the Kingston City School District's Wellness Policy, as a direct result of the work of this committee. Additionally, on a city-wide level, the Common Council passed a Community Garden Resolution (Resolution # 138 of 2011), providing governmental support for food gardens throughout the city. The committee is also working to develop local produce markets in walkable distance from Kingston neighborhoods in the form of farmer's markets or increased access to local produce at corner stores. Additionally, the committee is working on initiatives aimed at sustaining community and school gardens for the long term.

The Safe Routes Committee envisions the Kingston City School District as a walkable and bikeable community for children on their way to school and to play. The committee is currently taking actions to 1) encourage more children to walk or bicycle to school and 2) diagnose barriers to safe routes in the school district and work with municipalities to fix them. In 2011, environmental education staff conducted a parks user survey which provided significant feedback as to the use of the Kingston Parks System and its amenities. Also completed was a park amenity mapping project which will result in an interactive online map of all that the Kingston Parks System has to offer. Finally, extensive mapping was done as a walkability analysis of Kingston's city streets to ultimately develop safe routes to parks and school maps and to apply for infrastructure improvement funding.



#### Creating Healthy Places to Live, Work and Play

The City of Kingston has also partnered with Cornell Cooperative Extension of Ulster County, through a grant from the New York State Department of Health: Creating Healthy Places to Live, Work and Play (CHP), an effort to reduce the occurrence of type 2 diabetes. This grant is completing its second year and the city's effort is led by the environmental education staff.

The CHP initiative is structured to effectuate policy, environmental and systems changes designed to improve the health and fitness of Ulster County residents. The underlying approach runs counter to traditional education methods which attempt to persuade individuals to adopt personal lifestyle changes. For many people, such changes can be difficult to achieve because of lack of access to healthy foods and recreational opportunities and thus have been less effective in slowing the rate of obesity. The CHP initiative will attempt to improve outcomes by enhancing access and implementing preventive health measures in local neighborhoods and communities, such as:

Developing and launching community initiatives to get residents to walk and bike more within safe streetscape environments; Supporting the proliferation of community gardens; Making it easier for residents to use parks via improved signage and online resources; Increasing healthy snacking and

physical activity and decreasing screen time in for youth in day and after school care centers; Working with restaurants and eateries to step-up efforts in posting nutrition information; Launching mobile farmers markets to reach communities with less access to fresh produce; Launching a county-wide media campaign focused on healthier food choices and portion sizes on restaurant menus, including greater access to nutritional information; Working with the media to educate residents about obesity and Type 2 diabetes prevention; and Engaging county and community leadership to actively participate in and advocate for the project.

The initial target areas for this initiative are the communities of Ellenville, Phoenicia and the City of Kingston and successful practices are expected to be rolled out to other municipalities throughout Ulster County in successive years. The Co-lead agencies for this initiative are Cornell Cooperative Extension of Ulster County and the Ulster County Department of Health. Key partners include the Community Heart Health Coalition of Ulster County, City of Kingston Parks and Recreation Department, Kingston Land Trust, Gilmour Planning and Healthy Kingston for Kids.

Projects of note for the City of Kingston include 1) replace park signage for all Kingston parks, in both English and Spanish; 2) develop better online gateways to our park system; 3) market additional programs to get people to use the Kingston Park system; 4) create new bilingual park brochure, program guide and interactive mapping tool; 5) develop a recreation department online facility and program reservation form; and 6) develop Parks and Recreation Master Plan, an effort led by Gilmour Planning.

#### Goals/Vision for 2012

- Work with Cornell Cooperative Extension to complete workplan items for 2012
- Continue to develop new partnerships and new funding sources with Cornell and other agencies

### Walk to School Day at George Washington Elementary



## Grants Applied for and/or Received in 2011

The City of Kingston environmental education staff has developed, administered and implemented a number of grant programs which completely covered all salary and benefit related expenses for the two environmental education positions during 2011.

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| <p>1) NYS Office of Parks, Recreation, Historic Preservation – Zoos, Botanical Gardens and Aquarium Grant<br/><b>Successful</b>                      <b>\$15,000</b></p> | <p>8) NYS DOS Watershed Management Grant for Tidal Rondout Creek<br/><b>Successful</b>                      <b>\$126,908</b></p>                                     |
| <p>2) Clean Air, Cool Planet Community Catalyst Fund - Energy Management Software/Action Plan Printing<br/><b>Successful</b>                      <b>\$2, 250</b></p>    | <p>9) NYSERDA – Energy Manager Grant<br/><b>Successful</b>                      <b>\$52, 456</b></p>   |
| <p>3) Ulster County Youth Bureau – NYS OCFS – School and Public Environmental Education Programs<br/><b>Successful</b>                      <b>\$13,000</b></p>          | <p>10) NYSERDA – Materials Conservation Grant<br/><b>Successful</b>                      <b>\$233,000</b></p>  |
| <p>4) NYS DEC Estuary Program Grant – Stormwater/Green Infrastructure<br/><b>Successful</b>                      <b>\$60,000</b></p>                                     | <p>11) ALCOA Foundation – Composting and Rain Barrel Study<br/><b>Successful</b>                      <b>\$15,000</b></p>  |
| <p>5) NYS DEC Recycling Education Grant<br/><b>Successful</b>                      <b>\$43,472</b></p>   | <p>12) Community Development Block Grant- Environmental Education Programs at George Washington School<br/><b>Successful</b>                      <b>\$3,000</b></p> |
| <p>6) NYS DEC Recycling Bin Grant<br/><b>Successful</b>                      <b>\$112,500</b></p>  | <p>13) Coca-Cola, Keep America Beautiful – Recycling Container Grant for Uptown Kingston Streetscape<br/><i>Unsuccessful</i></p>                                     |
| <p>7) NYS DEC Clean Air Grant – Tow Behind Chipper/Compost Program<br/><b>Successful</b>                      <b>\$5,000</b></p>   | <p>14) NYS Office of Parks, Recreation, Historic Preservation – Bathroom Improvement Project<br/><i>Unsuccessful</i></p>   |

## Partners in the Following Grant Programs in 2011

- 1) Kingston City School District – Learn and Serve America Gardening Grant  
**\$60,000**
- 2) Cornell Cooperative Extension – Robert Wood Johnson Foundation – Healthy Kingston for Kids  
**\$14,500**
- 3) Cornell Cooperative Extension – NYS DOH - Creating Healthy Places to Work, Live and Play  
**\$60,000**