

GREENPRINT



PROVIDENCE

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**David N. Cicilline, Mayor**



I am pleased to present Greenprint: Providence, a comprehensive report on our efforts to reduce global warming pollution and to position Providence as a leader in the rapidly growing green economy.

Because of the urgency of both the crisis and the opportunity, cities cannot wait for the federal government to develop a coherent national strategy.

We must take the lead if there is going to be immediate progress in the area of climate change and if America is going to compete in the 21st-century green economy.

As this report details, the City has already taken many steps to reduce our carbon footprint. The City has purchased renewable energy credits equivalent to 100% of the electricity consumed by City Hall. I signed an agreement along with other mayors to follow the principles of the Kyoto Agreement. We've committed to purchasing at least 20% of all municipal energy from clean, renewable sources by 2010.

By addressing climate change in a meaningful way, we will experience benefits with improved air quality and public health, and we will create new jobs with a green-collar economy. I am encouraged by our progress and I hope we can work together to make our great city even greener.

Realizing the goals outlined in this report will not be easy. I urge you to hold us accountable for the implementation of a green agenda. Please join us by taking part in creating a sustainable Providence and helping to build the 21st-century green economy.

**DAVID N. CICILLINE**  
**Mayor of Providence**



In the face of increased environmental concerns, cities around the world have begun to take responsibility for their contributions to greenhouse gas emissions. Providence has joined this movement by implementing and planning innovative practices that will reduce global warming and improve the local environment.

**Global Warming 101:** The “greenhouse effect,” which makes the Earth habitable, refers to the ability of the gases in the Earth’s atmosphere to trap the sun’s heat. The concentration of certain gases has increased due to human activity, particularly related to industrialization, adding to the natural greenhouse gas effect and causing the Earth’s average temperature to rise.

Carbon dioxide and methane constitute the major greenhouse gas emissions in urban areas. Carbon dioxide emissions come from fossil fuels-based energy (such as electricity derived from the burning of fossil fuels), which is used by households, institutions, commercial buildings, automobiles, and industry. Methane is emitted when waste decomposes in landfills and when wastewater is treated.

**Sustainability:** Environmental sustainability aims to minimize human impact to the point where the environment can continue to function properly indefinitely. Sustainable initiatives help to meet the present needs of humans without endangering the welfare of future generations. Providence intends to move toward sustainability by implementing programs that reduce our impact on the local and global environment.

Providence has already made commitments and associations that reflect our dedication to climate action. Providence illustrates that actions at the city level can make a difference.

For example, Providence has committed to purchasing at least 20% of the energy it consumes annually from clean renewable sources by 2010.

In 2005, Mayor Cicilline signed the US Conference of Mayors’ Climate Protection Agreement, making Providence a “Cool City” and committing Providence to: meet or beat the Kyoto Protocol targets; urge state and federal government to meet or beat the Kyoto re



### From ICLEI's "Best Practices for Climate Protection" 2000:

**What Can Local Governments Do?** Local governments control many of the day-to-day activities that determine the amount of energy used and waste generated by their communities. In this manner they can change energy consumption patterns and greatly impact the emissions of global warming pollution. For example:

- Local governments make land use and development decisions that determine the density and physical layout of communities, influencing how much people drive
- Local building codes determine the energy efficiency of houses and commercial buildings
- Local waste reduction and recycling programs affect how much waste goes to landfill

duction target; and urge the U.S. Congress to pass the bipartisan greenhouse gas reduction legislation.

Providence is a member of ICLEI's Cities for Climate Protection Campaign, an association that assists local governments create environmental solutions. Providence is also a part of the New England Cities Project, a coalition of

nine New England cities that committed to curb greenhouse gas emissions, and will receive technical assistance to meet their goals. In 2008, Providence joined the US Green Building's Council, the organization that oversees the LEED accreditation program. On September 27, 2008, the Mayor joined nearly 700 communities across the country by signing the "Green Jobs Now" petition, calling for a national commitment to developing a green collar economy.

Providence acknowledges the direct threat that climate change poses to our community. In addition to prevention, we are enacting climate protection measures because of the economic and environmental benefits that reducing energy consumption will bring. Through our efforts, we will ensure better air quality, create new jobs, increase savings, and help preserve and improve Providence's high quality of life.

The most important next steps for Providence include establishing metrics to measure our success, identifying the resources and best method for implementing this plan, helping to find sources of funding, creating new reduction targets, and enlisting citizen support.

## **GREENPRINT:** PROVIDENCE

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## Energy

Fossil fuels – coal, oil, and natural gas – are America’s primary source of energy. Our dependency on these fuels contributes to global warming, causes cancer and other health problems related to air pollution, and degrades valuable land and water resources. Nationwide, there is recognition that energy production needs to move toward clean, renewable energy sources. As a local community, we can help on the demand side by decreasing our consumption of energy. Hybrid vehicles, high-efficiency light bulbs, and infrastructure upgrades will decrease the City’s demand for energy, reducing our carbon footprint and improving human health and promoting environmental sustainability.



## ACCOMPLISHMENTS

### COMMITMENTS AND ASSOCIATIONS:

- The City of Providence has committed to purchasing at least 20% of the energy it consumes annually from clean renewable sources by 2010. As of December 1, 2007, the City has purchased renewable energy credits (RECs) equivalent to 100% of the electricity consumed by City Hall – a 25/75 mix of local New England and national RECs, as recommended by the Clean Energy Task Force, now named the Environmental Sustainability Task Force.
- Mayor Cicilline signed the US Mayors' Climate Protection Agreement, advancing the goals of the Kyoto Treaty and designating Providence as a "Cool City," an initiative by the Sierra Club to fight global warming at the local level.
- Providence is a member of ICLEI's Cities for Climate Protection Campaign, (International Council for Local Environmental Initiatives), an association that assists local governments in preventing and solving local, regional, and global environmental problems. Providence has completed the first of five milestones required by ICLEI's Cities for Climate Protection Campaign: conducting a baseline emissions inventory and forecast. This provides a benchmark against which Providence can measure its progress. The inventory revealed that municipal government releases the equivalent of 110,000 tons of CO<sub>2</sub> per year (using base year 2005). The next milestone that Providence will undertake is the adoption of an emissions reduction action plan, using the data from the GHG inventory.
- Providence has been invited to participate in the New England Cities Project, joining nine other New England cities to curb greenhouse gas emissions. The collaboration will foster the development of projects and policies the municipalities can enact together to reduce emissions and demonstrate their commitment to environmental sustainability.

### DECREASING MUNICIPAL ENERGY CONSUMPTION:

- In the summer of 2005, the City installed a light sensor system in the Public Safety Complex to minimize energy consumption in the building. The retrofitting included 139 light sensors, ultimately saving 85,651 kilowatt-hours (kWh). This reduction in kWh, according to EPA

conversions, is equal to 146,828 pounds of CO<sub>2</sub>.

- The Providence Public School Department (PPSD) hired two Energy Educators in February 2007, charged with reducing electric, gas, and oil consumption by 15-30%. The Energy Educator performs routine audits of all facilities and communicates the audit results to the appropriate personnel; recommends adjustments to the District's Energy Management System; provides regular reports to Principals indicating performance with regards to energy savings. In late 2007, the Energy Educators released a set of "Conservation Guidelines," approved by the school board and Superintendent, which have become PPCD policy. The guidelines include recommendations for minimizing energy usage by conserving heating, lighting, water, and air conditioning. In January 2008, the Energy Educators released a report with data on money saved through energy conservation efforts in the school department:

FOURTEEN-MONTH COMPARISON OF EXPECTED COSTS  
TO ACTUAL COST OF ELECTRICITY:

**Saved \$520,098**

FOURTEEN-MONTH COMPARISON OF EXPECTED COSTS  
TO ACTUAL COST OF NATURAL GAS:

**Saved \$59,736**

FOURTEEN-MONTH COMPARISON OF EXPECTED COSTS  
TO ACTUAL COST OF FUEL OIL:

**Saved \$445,720**

**IN TOTAL: 11.7% SAVINGS (\$1,025,556)  
IN THE FOURTEEN-MONTH-PERIOD FROM  
MARCH 2007 TO APRIL 2008.**

### ENVIRONMENTAL IMPACT

The fuel not burned to not generate the 3,589,358 kWh avoided this eight month period is equivalent to:

- A) Removing 503 automobiles from the road, or
- B) Planting 1,041 acres of trees to remove 5,384,000 pounds of carbon dioxide from the atmosphere.



- The City will continue to ensure that all new purchases in all municipal buildings and city-funded affordable housing will be Energy Star approved. Furthermore, all city-funded housing must use LED lights, thermal pane windows, as well as energy star appliances and mechanics.
- Providence has initiated a Temperature Adjustment Program in City Hall and the Public Safety Complex. The thermostat's computer reads inside/outside temperature and adjusts, calling for pressure on the boilers only as necessary. The temperature must stay between 68° and 72°. On weekends and holidays, thermostats are set at 55° to reduce unnecessary energy consumption.
- The City has replaced 99% of incandescent bulbs with Compact Fluorescent Lightbulbs (CFLs) at City Hall, using the maximum efficient bulb appropriate for each location. The City is engaged in developing a plan for disposal of CFLs.
- The City has replaced incandescent traffic lights with LED lights. This initiative has thus far resulted in \$100,000 rebates from the electric company. These LED lights use 10% as much energy as incandescent bulbs. From September 2006 to April 2007, the City installed LED lights at 127 signalized intersections and 532 LED pedestrian lights at crosswalks. Currently seventy percent (70%) of traffic signals utilize high-efficiency LED lights and sixty-two percent (62%) of crosswalk signals are LEDs.
- Providence continually upgrades "Exit" signs to LED lighting, which is much more efficient than standard lighting. This is an ongoing initiative; each time an incandescent exit sign is replaced, an LED sign is used.
- The City has installed 15 solar-powered "Multi-Space Parking Meters" since 2005, with plans to expand.
- At the end of May 2008, The Providence Police Department began a three-month trial of the all-electric Vectrix Maxi Motorcycle. The scooters can go as far as 60 miles on a single charge, thanks in part to their patented regenerative braking system. They can be charged in 3 to 5 hours using standard household current, and can achieve a top speed of 62 miles per hour.
- Providence Water Supply has purchased hybrid vehicles; the Providence Economic Development Partnership purchased a hybrid; inspection and meter vehicles have downsized from six cylinder to four; and the Police Department has downsized from eight cylinder to six cylinder vehicles. Downsizing the Police vehicles increased the MPG by 2 for city driving and by 3 for highway driving. Fuel efficiency is now included as part of the criteria for procurement of fleet vehicles. Providence Water has installed a GPS navigation device in all vehicles. This system monitors speed and idling time. Providence Water has instituted a policy that specifically states no vehicle is allowed "to idle for more than five minutes at any location, unless absolutely necessitated by a job site requirement."



## NEXT STEPS

### INITIATIVE 1:

#### **Expand Renewable Energy Purchases; Identify Renewable Energy Sources**

- The City will continue to investigate sources of renewable energy in Providence. With a strict financial investment returns test, the City will identify opportunities in the existing built environment for new local renewable energy sources, mapping out potential wind and solar locations, and investigating solar heating, hot water, and electricity at schools. The City will prioritize multi-use opportunities that maximize the finite space available. We will also continue to purchase Renewable Energy Credits to offset carbon emissions and support the clean energy market.
- The implementation of a wind power initiative by the City would provide a continuing revenue stream and advance the City's Green agenda. The City owns several parcels of land that appear to be good candidates to support wind turbines. The City will develop an energy consortium to develop renewable energy, and aims to see the project operating within three years.
- Providence Water Supply is investigating the feasibility of constructing and operating a hydroelectric generator at the reservoir. The energy produced would be used to power the Providence Water Plant and the generator may also be eligible for renewable energy credits.



### INITIATIVE 2:

#### **Strengthen the Coordination of Major Institutions to Decrease Energy Consumption**

- The City will create a City of Providence Energy Management Planning Board, charged with coordinating the energy planning goals and activities of the City and the major institutional energy consumers and providers. Currently, all are engaged in efforts to decrease demand and increase the use of renewable energy, but these efforts are separate and distinct, not coordinated. As of yet, there is no formalized

way to share information, coordinate activity, share resources, or collaborate. The Mayor will establish a Planning Board with representatives from the City, the State, the utilities, and major institutions. The Board will focus on initiatives that minimize the demand for energy and expand the supply of new clean power.

### INITIATIVE 3:

#### **Continue to Reduce Municipal Energy Demand**

Providence will need the cooperation of all individuals and institutions to increase energy conservation throughout the city. We can reduce demand with the City leading. The



following are examples of ways to decrease energy demand:

- The Northeast Energy Efficiency Council has invited Providence to participate in project called “Making Utility Information Actionable.” The program will allow Providence to access software that aggregates utility data from municipal buildings, which will provide the City with useful information that proves a foundation for the City’s energy decision-making and clean energy initiatives. With the system in place, managers can identify problems and opportunities and set priorities by measuring changes in energy use over

time.

- The City has joined the State Electronics Challenge (SEC), a program run by Northeast Recycling Council. The SEC is a voluntary program that challenges public entities at the state, regional, and local level to “green” the management of their computer assets. The program assists participants in meeting goals in three areas: acquisition and procurement; operations and maintenance; and end-of-life management. The City has registered City Hall and the Public Safety Complex and is in the process of registering the schools. By committing to meet the

benchmarks in all the three goal areas, Providence has pledged for “Gold” recognition for City Hall and the Public Safety Complex.

- Through the SEC, the City will enforce a citywide computer shutdown policy. In the Public Safety Complex, all computers are set up to have monitors power off after a half an hour of being idle, and to have

the computers’ hard disks power off after being idle for 1 hour. The City will work with Departments to implement shutdown while ensuring needed backups occur.

- The City will set a goal for reducing municipal energy consumption, demonstrating the City’s commitment and serving as an example to residents and other municipalities.

#### INITIATIVE 4:

##### **Establish a Residential Energy Efficiency Revolving Loan Fund**

- Modeled after similar programs in San Francisco and Berkeley, California, this fund will finance capital improvements made by property owners in Providence to reduce the carbon footprint of residences in the City, achieve improved energy efficiency, reduce energy expenditures of residents, and lower Greenhouse Gas Emissions in Providence. Next steps include: a feasibility study, a pilot phase, and a full-scale rollout of the program.





Providence  
will need the  
cooperation  
of all  
individuals  
and  
institutions  
to increase  
energy  
conservation  
throughout  
the city.

## LONG-TERM GOALS

### ESTABLISH A MUNICIPAL REVOLVING ENERGY FUND

- The City will explore the feasibility and potential role of a fund that would support projects that require seed money initially but will generate additional savings over time. Once seed money for a revolving energy fund is obtained, the Fund then finances energy reduction projects that are able to reduce operating costs and energy consumption. A percentage of the savings from these reductions in costs are reinvested in the Fund, securing a self-sustaining source of monies.

### CAPTURE METHANE EMISSIONS FROM TRANSFER STATION

- As a long-term goal, the City is investigating ways to generate power from any potential

future Municipal Transfer Station by capturing methane emissions.

### ESTABLISH CLEAN ENERGY CHOICE FUND

- Currently, National Grid's GreenUp program allows residents to have all or part of their electricity come from renewable sources by paying a small additional fee on their electric bills. A long-term goal for the City is to establish a Clean Energy Choice Fund, which would be used by the City for renewable energy projects and funded by a third-party match of the GreenUp premium.





**The Environmentally Sensible House**

This house demonstrates that green design need not be expensive, or make a strong statement.

It features a simple, functional design that is easy to build and maintain. The house is designed to be energy-efficient, with a focus on natural ventilation and passive solar heating. The design also includes a small garden area and a composting toilet.

The house is a sustainable design that is easy to build and maintain. It features a simple, functional design that is easy to build and maintain. The house is designed to be energy-efficient, with a focus on natural ventilation and passive solar heating. The design also includes a small garden area and a composting toilet.

2008 providence  
sustainable housing  
design competition  
A0102



## The Built Environment

Providence is a highly developed city with well-established infrastructure and only a small amount of vacant developable land. Providence is also a city that has a strong tradition of historic preservation. Preservationists have long argued for adaptive reuse and conservation. Today, this ethic is more relevant than ever. Preservation is "the ultimate recycling." (Nationaltrust.org). Demolition and construction *require* energy. Renovation and preservation *save* energy.

In a city with limited developable parcels and a tradition of robust historic preservation, it is necessary to redevelop with innovative green design incentives. Providence will encourage energy-saving measures on existing buildings and explore appropriate potential mandatory efficiency levels. As commercial, retail, and residential developments grow, Providence must utilize strategies to minimize the impact of such developments on the environment. Healthy cities benefit the entire country. Urban environments encourage people to live and play where they work, thereby decreasing sprawl and preserving forest and agricultural lands.



## ACCOMPLISHMENTS

- The City's recently adopted Comprehensive Plan includes an entirely new section on sustainability. It offers recommendations for the City and developers on preserving the natural environment in Providence and decreasing energy consumption and pollution.
- **Green School Buildings:** In 2007, Providence announced the multi-year "Building a Legacy" campaign, pledging over \$750 million dollars to renovate or rebuild the majority of Providence's aging school buildings. All future school construction and major renovations of Providence schools will comply with the Northeast Collaborative for High Performance Schools Protocol (CHPS), which is very similar to LEED but predates the formal establishment of LEED's K-12 standards. The protocol includes design provisions for daylighting controls, high efficiency boilers and fixtures, alternative energy systems, reduced water consumption, zero storm water runoff, existing building reuse, and minimum 50% recycling of construction debris.
- Updating the Providence water infrastructure has saved energy and increased safety. Providence Water has removed underground fuel storage tanks at several sites and replaced them with new above ground tanks at two sites. Leak monitoring equipment was installed at a fuel tank at the treatment plant.

### What is LEED?

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed in 1998 by the US Green Building Council, provides a suite of standards for environmentally sustainable construction. To date, LEED has grown to encompass projects in 50 US States and 41 countries, covering over 3 billion square feet of construction space. LEED certification is available for all building types through a point-based system. Projects must satisfy particular prerequisites and earn points within each of the following six categories: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality and Innovation in Design (projects can earn ID points for green building innovations). The number of points the project earns determines the level of LEED Certification the project receives. LEED certification is available in four progressive levels: Certified, Silver, Gold and Platinum.

Three exciting new projects exemplify the Providence School Department's commitment to sustainable design. The Nathan Bishop renovation and the new James Hanley Career and Technology High School projects will achieve the 30% threshold and have targeted 40% as a goal. The Central High School renovation includes innovative sustainable design elements, including motion-detected and light-sensitive light fixtures.. The Hanley School includes solar-powered hot water and a recycling system for greywater. Greywater refers to wastewater generated from domestic processes such as dish washing, laundry and bathing. This water is neither fresh nor heavily polluted, and can be used for flushing toilets and watering gardens.

## NEXT STEPS

### INITIATIVE 1:

#### Continue to Build Green

- Future construction of municipal buildings will be green. When feasible, buildings will at least qualify for LEED silver. The City will implement LEED certification incentives citywide. An improved process of local development review will provide the means to strengthen environmental standards for development proposals.

### INITIATIVE 2:

#### Encourage Creative Public Engagement in Green Design

- Green Affordable Housing Design Contest: the City recently announced the winners of a contest for the design of an easily reproducible, low-maintenance, environmentally sustainable house. Awards of \$5000 each were presented to Christine West, of Providence-based Kite Architects and Robert Swinburne, of Brattleboro, Vermont. When Mayor Cicilline kicked off the green design competition in February, he challenged participants to develop designs for environmentally sustainable homes that incorporate energy efficiency, resource conservation, renewable energy and other green building principles. The judges, who reviewed more a dozen design

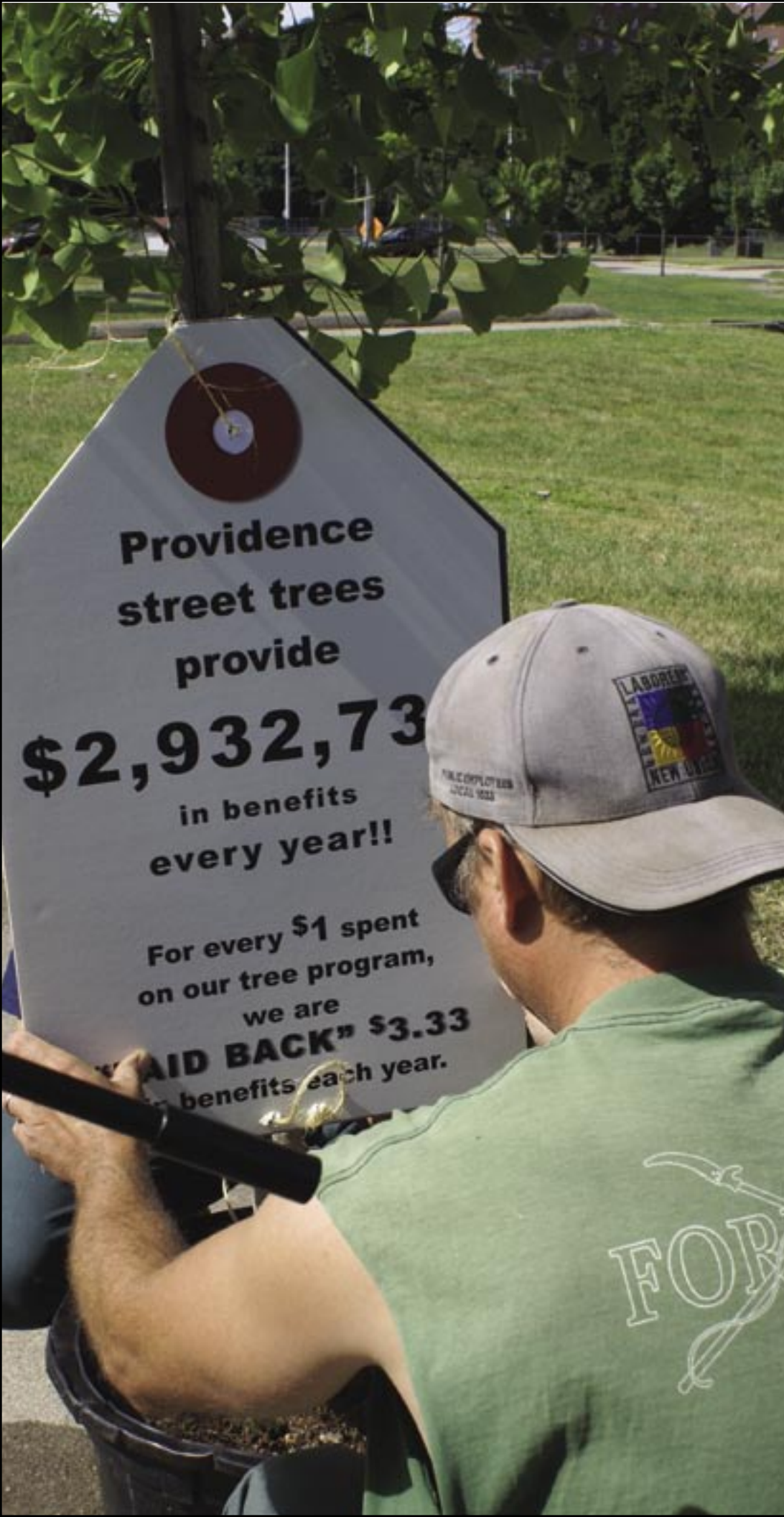
submissions, focused on the following criteria: design and community context, LEED certification and technology, replicable design and realistic budget and materials. The winning designs pave the way

for integrating energy-efficient environmentally friendly design into the construction of affordable housing in Providence.









## Public Space

As Providence continues to develop, the City must find ways to maintain green, open spaces. Urban parks offer citizens environmental, social, economic, and health benefits; community gardens and urban agriculture build community, foster cultural identity and connections, engage residents in the stewardship of land, and provide affordable produce; and city trees moderate climate, increase property values, improve air quality, conserve water, and harbor wildlife.





## ACCOMPLISHMENTS

### EXPANSION AND GREENING OF PARKS:

Providence Parks Department has expanded community gardens and public parks, and has included greening the parks' infrastructure as a strong component of this expansion. Parks provide visual relief in urban areas, refuges for many trees and wildlife, places for city residents to enjoy nature and to get exercise. Strong parks make for healthy cities and healthy cities are good for the environment.

- The City has built its first skateboard park at Neutokananut Park, two dog parks, and 17 walking and jogging tracks.
- Three community gardens have been established on park property and the City seeks to expand community garden space. The first is in Elmwood on park land rented to the Southside Community Land Trust (an independent private 501c(3)), the second in Fox Point at Gano Park, and the third at Sessions Street.
- The Parks Department installed the first solar powered lighting on a walking track in Amos Early Park in fall 2006. Another solar powered lighting system was installed in Donigian Park in July 2008.
- Recycled materials are currently used in playgrounds and park bench construction. As the Parks Department renovates parks, recycled benches and picnic tables will be used wherever appropriate. Recently recycled tires from the RI Resource Recovery Center were installed in a playground built in Olneyville. Shredded wood mulch is used for new playground surfacing throughout the city. (See page 25 for an excellent example of the Parks Department working with residents to green our parks.)

### URBAN FOREST MANAGEMENT:

- The Parks Department completed Street Tree Inventory in 2006 in order to identify current trees, map their locations, and determine their condition. Additionally, the Tree Inventory quantified the environmental benefits that street trees provide the city, as well as their contributions to energy savings, carbon storage, pollution mitigation, storm water management and their aesthetic and financial benefits.
- The Parks Department planted more than 1,170 trees in 2006 and more than 1,200 in 2007. In the past ten years, tree planting has increased

The 25,000 street trees in Providence offer approximately \$3 million in benefits annually, such as:

- Intercepting 29 tons of air pollution and avoiding 12 tons of air pollution;
- Saving 1,700 MWh of electricity and 634,000 therms of natural gas;
- Intercepting 31 million gallons of storm water;
- Increasing property values by over \$1.2 million.

These trees store nearly 39,000 tons of carbon, and have a total replacement value of \$82 million.



substantially. The Parks Department aims for a net gain of trees each year, taking into consideration tree removals and mortality.

- The Parks Department creates trees wells as large as possible where space allows, so that tree roots can better absorb water, nutrients, and oxygen. Trees have a better chance to remain healthy and reach a mature size.
- A large tree offers exponentially more environmental benefits than a smaller tree. Preserving and maintaining existing trees is a top priority. The Forestry Division has instituted a citywide rotational pruning program whereby every street tree will receive pruning at least once every 10 years. This will help trees reach a mature size and a large, healthy canopy. The Parks Department has instituted a “tree rescue” program to create better growing spaces for existing trees by removing health-threatening infrastructure such as choking tree grates and sidewalk pavement.





## NEXT STEPS

### INITIATIVE 1:

#### Continue to Expand Parks and Community Gardens

- The Parks Department has set a goal of opening one community garden each year over the next three years, thereby doubling the current number of gardens. The City will expand the community garden program by identifying non-taxable vacant land where community gardens could be located. For example, Rhode Island Department of Transportation has land in various parts of the city that potentially could be used for a community garden. The city will shoulder part of the cost – including irrigation and fencing.
- The City will add over 20 acres of park space by 2012, primarily along the rivers and waterfront.



### INITIATIVE 2:

#### Address Storm Water Management

The City will address the interconnected issues of storm water runoff pollution and the negative impact of impermeable hard surfaces. The following are three ways to begin that process.

- The City will expand on-street parking in order to dissuade residents from paving over their yards; encourage residents to re-green paved yards; and educate the public on tree care and the value of permeable surfaces
  - The City will develop incentives for green roofing. Green roofing will not only help with storm water runoff but will also mitigate
- the urban heat island effect, which refers to the temperature difference between a metropolitan area and its surrounding, due to the large amounts of paved and dark-colored surfaces in cities.
- The City will educate citizens on the benefits of the Narragansett Bay Commission's Rain Barrels. Made from recycled barrels ranging in capacity from 55 to 60 gallons, the rain barrel is intended to be used with gutters and downspouts to collect storm runoff that can then be used for watering gardens. Because they capture storm water, the rain barrels

help to avoid sewer overflow.

- The City has made a commitment to improve the quality of storm water runoff, strongly recommending that sidewalks be separated from the curb by a permeable strip whenever possible, provided there is a uniform appearance.

### INITIATIVE 3:

#### Expand Brownfield Best Practices

- Brownfields represent opportunities for development as well as the reintroduction of green fields on former industrial land. As the Planning Department's Comprehensive Plan recommends, the



City will: promote neighborhood sustainability by mitigating the impacts of brownfields; work with state, private, and non-profit entities to facilitate the assessment, remediation, and environmentally sustainable development of brownfield sites; and identify additional funding sources to

encourage redevelopment of vacant, underused, and environmentally compromised lands such as brownfields.

#### INITIATIVE 4:

##### Meet Urban Tree Canopy Coverage Goal

- The Urban Tree Canopy study analyzed the entire urban forest, including street trees, park trees, and trees on private property and backyards using 2007 satellite imagery. The Parks Department determined the current citywide tree canopy coverage is 23%. The City Forester has recommended that the City aim for 30% tree coverage by 2020. This means 40,000 trees need to be planted (3,333 per year) through a combined effort by the City, developers, institutions, and homeowners. The City will lead a public-private tree planting campaign to plant 40,000 trees by 2020.

per year, resulting in a net gain of approximately 223 trees per year (1,100 new trees – 800 removals – 77 new tree mortality = 223 trees).

## LONG TERM GOAL

- The City will identify how tree planting earns carbon credits. The City can document the carbon captured by trees and receive carbon credits. A methodology has been developed, although no municipality has used it yet. The City will investigate this as a potential long-term goal.

#### INITIATIVE 5:

##### Establish and Fund an Annual Tree-Planting Goal

- The Parks Department proposes that funding be provided to plant 1,100 trees







The Friends of Brown Street Park is a 501C(3) non-profit organization whose mission is to: create the first eco-conscious park in the city with a focus on health and fitness, creating a community destination for people of all ages from the diverse surrounding neighborhoods. By partnering with the Parks Department and local businesses and community organizations, The Friends of Brown Street Park have already dramatically changed the park.

Among their accomplishments:

- A shade sail has been hoisted!
- A serpentine bike rack has been installed behind the shed for those riding to the park.
- Newly planted 'islands' have been created throughout the park grounds.
- Trex (recycled wood) was donated by the Trex Corporation and added to the retaining wall for more comfortable seating.
- A bench designed by the RISD Architecture Department was selected to be a permanent fixture in the park and is currently being reproduced using eco-friendly composite lumber and steel donated by BB&S Lumber and Douglas Lumber.
- The Friends of Brown Street Park are proud to announce that they are the first park in the city to adopt a recycling program.
- Tractor tires were donated by Ocean State Tire to create a fantastic new climbing structure for all ages.
- The new sandbox was created by using recycled curbstones, donated by DPW and assembled by Lou Polseno and Son.
- The Department of Public Works and the Providence Parks Department have set up a water connection so that the Park can maintain all of the new landscaping.





## Transit and Transportation

As the Transit 2020 Report declares, “Rhode Island needs to make an investment to develop and maintain a seamless, integrated, high quality transit service that builds on and complements the existing system. An investment in transit will yield numerous benefits: decreased congestion on our roadways; increased economic development potential State-wide; improved environmental quality, including reducing greenhouse gas emissions that threaten significant climate change; ... and a preservation of the quality of life that distinguishes Rhode Island.” Great cities have great transit. By promoting public transit and connecting pedestrians and cyclists to transportation options, we will decrease oil consumption, CO<sub>2</sub> emissions, and create a better-connected, more pedestrian-oriented city.





## ACCOMPLISHMENTS

- Mayor David N. Cicilline convened the Transit 2020 Working Group, which advocates for developing a robust and seamless transit system in Rhode Island.
- RIPTA and the City of Providence are developing a comprehensive transit study that will realize the goals outlined in Transit 2020.
- The Transit 2020 Coalition has been created to promote the development of a robust transit system for the Greater Providence Metropolitan Area and the State of Rhode Island through advocacy and public education for policy that supports transit. The Coalition aims to increase public understanding of the economic, social, and environmental value of transit.
- With City encouragement and support, RIPTA has partnered with seven universities and colleges throughout Providence to offer reduced or free bus rates through the UPASS program.
- School bus routers used Edulog software routing system to create the shortest routes for the District with the least amount of idling time between and during runs, factoring in number of students, geographical locations, and dismissal times. By minimizing routes and decreasing the fleet, the City has decreased carbon emissions and gas consumption.
- The City has encouraged the use of alternative transportation, including biking. With more people on bikes, Providence will experience reduced traffic demands, improved air quality and greater physical fitness of our residents. A bike path was recently opened that links Johnston to Providence through Olneyville, and bike lines were added to Blackstone Boulevard. The Mayor annually participates in Bike to Work

Day to encourage alternate transportation. The City has added 120 bike racks through the downtown Bike to Work and College Program; and increased the number of painted crosswalks to make Providence a more bikeable and walkable city.

- The Police Department is testing two 100% electric, zero emissions, Vectrix motorcycles. Vectrix created the world's first fully electric motorcycle and is headquartered in Middletown, RI.

Specifically, over the past ten years PPSD has reduced the total number of buses by a total of 30 buses. By eliminating these 30 buses, the District is using approximately 55,836 fewer gallons of fuel per year. In terms of economic efficiency, the District has saved over \$120,000 per year by eliminating these buses. Using the CO<sub>2</sub> emission coefficient of approximately 22 pounds of CO<sub>2</sub> emissions per 1 gallon of diesel fuel, the District has avoided the emission of over 1,225,000 pounds of CO<sub>2</sub>.

## NEXT STEPS

### INITIATIVE 1:

#### Reduce Emissions from City Vehicles

- Idling produces unnecessary pollution that contributes to climate change, smog and health problems. Children are particularly vulnerable to air pollution because they breathe faster than adults and inhale more air per pound of body weight. Many drivers continue to voluntarily idle because of an outdated myth that claims that idling uses less gas than restarting a car. Automotive engines do not operate efficiently when they idle. Experts say there is a maximum 10-second idling break-even rule. If you are idling longer than 10 seconds, both you and the engine are better off if the engine is turned off and restarted.
- An anti-idling campaign on municipal vehicles will reduce automobile carbon emissions. Department of Public Works already imposes an anti-idling policy on their vehicles; the School Department also imposes an anti-idling policy for school buses. Although some idling is necessary for city vehicles, increased education will decrease idling.
- The next step for the City is to explore a citywide anti-idling ordinance, beginning by posting signs at schools where parents wait to pick up their children. Bumper-stickers distributed by Department of Public Works would read: "Idling gets you nowhere!" If there are idling fines for the public, the money raised could go to tree planting and forestry programs, as in New



- York State.
- While investigating the benefits of hybrid vehicles for city driving, the City will continue the use of fuel efficiency as criteria for fleet purchasing, regularly revising standards to the highest appropriate goal to take advantage of future technology improvements.

### INITIATIVE 2:

#### Increase Bike Infrastructure and Develop Bike Share Program

- The City will expand bike paths and encourage biking; connect East Bay Bike Path through Blackstone Boulevard; and investigate streets wide enough to fit a bike lane.
- Providence will install more than 1,000 signs that increase visibility of city-cycling and provide directions for bikers. The signs will be placed at major intersections and on major city thoroughfares and will direct bikers to major city landmarks, to dedicated bike paths and bike lanes, to the downtown and to nearby cities and towns.

- The City will develop a bike share program, modeled after the highly successful programs in Europe and other US cities. Residents will be able to borrow bikes from various docking stations for a few hours at a time. A bike share program eases congestion, enhances the city's public transportation system, and offers public health benefits.

### INITIATIVE 3:

#### Increase Public Transit Use and Carpooling

- The City will encourage companies to give employees incentives to use buses.
- For example, the City will encourage the expansion of employers offering RIPTA parking cashout programs. Through this program, employees are able to purchase bus passes - instead of parking spaces - with pre-tax dollars. The program would offer 24/7 bus pass in order to encourage bus riding after workday as well.
- The City will increase municipal employee



carpooling by promoting the free carpool matching service on the RIPTA website.

#### **INITIATIVE 4:**

##### **Pursue Inclusion of Providence in Active Trails**

- Providence is organizing to be included in Active Trails reauthorization. Rails to Trails Conservancy has launched a campaign for at least 40 communities, including Providence, to each advocate for \$50 million in the next federal transportation reauthorization, anticipated by 2010. The funding will support the extension and improvement of active transportation infrastructure by developing a new Providence Bike Network Plan, completing the sidewalk network, upgrading and repairing existing sidewalks, and installing new pedestrian signals.

#### **INITIATIVE 5:**

##### **Promote Transit and Transit-Oriented Development**

- Create incentives for developers to build close to public transit or to minimize the number of parking spaces they create. The City will target regulations and incentives to direct investment along commercial corridors and create mixed-use centers to promote public transit; and tie parking requirements to proximity to transit facilities. Through these incentives and others, the City will continue to guide development toward a more walkable, bikeable city. Through planning and zoning, the City will identify areas that can become transit hubs and nodes for increased density – as density is essential for the success of transit.

- The City will continue to advocate for an enhanced transit system in the Providence metropolitan area. The comprehensive transit study, funded by RIPTA and in part by the City of Providence, will provide a framework for moving forward. Recognizing the key role that investment in transit will play in ensuring the economic vitality of Providence, the City will champion investment in permanent transit infrastructure – such as light rail and streetcars. Overall, the City seeks a robust transit system comprising various forms of transit, including the current bus fleet.







## Recycling and Waste Management

Recycling offers a simple opportunity to save the city money and decrease the flow of waste paper, cans, bottles, metals, and cardboard to the landfill. Although Providence has had a recycling program for many years, participation and recycling rates are much lower than the city's potential.



## ACCOMPLISHMENTS

- The City has hired a full-time recycling coordinator through a grant from Rhode Island Resource Recovery Corporation (RIRRC).
- The Big Green Can has been distributed to every household. The can reinforces an important message about the maximum amount of trash that a family should produce each week. If a family produces more waste than fits in the can, they should be recycling more and disposing less.
- The City has increased community outreach. Department of Public Works sends representatives to numerous community events to educate the public on the importance of recycling. The representatives make recycling bins available at a small cost and set up a table with pamphlets and information on recycling.
- DPW received a grant from the Coca Cola Company for 60 recycling bins that can be used at large-scale events. Event organizers or neighborhood cleanup crews interested in recycling at their Providence events will be able to borrow them from the DPW to collect bottles and cans. The website for the Recycling Office has been updated and features information on the recycling ordinance, resources on why and how to recycle, announcements, and an interactive “Ask Daisy” feature.
- Providence Water has a long-term recycling program that includes all metals, such as pipes, hydrants, file cabinets, meters, etc. They also in-house recycle computers and their components, wood pallets, cardboard, and paper.
- Providence started a recycling program in the school district this fall. Each school received at least three 95-gallon paper-recycling bins. The initiative began with high-paper-use areas (such as copy room, faculty lounge, and main office) and will expand to classrooms. In April the program expanded to include lamps, ballasts, and composting leaves. Performance is being monitored with steps being taken to increase recycling at under-performing sites. Classroom recycling will teach children about the importance of recycling, increasing the chances they will recycle at home. The recycling office has partnered with environmental organizations and non-profits to reach out to the rest of the community. The office offers volunteer internships and co-ops for students at local colleges and universities.
- Sodexo recycles corrugate cardboard and styrofoam cafeteria trays, which they then turn into packing pellets, an important first step in reducing styrofoam waste. Next, schools will begin to investigate ways to move away from Styrofoam entirely. Currently, the City recycling contract does not include the schools. The School Department will take advantage of the current waste contract’s expiration to increase recycling by joining the City’s contract.



## NEXT STEPS

### INITIATIVE 1:

#### Transition to a Unit-Based-Pricing Recycling System

- At the Mayor's Budget Address in May, plans were announced for Providence to transition to unit-based-pricing (UBP), a system that charges residents for trash by the unit and usually offers free recycling. Seven thousand municipalities in the US and 7 communities in Rhode Island already have some type of UBP program in effect. UBP has proven to successfully increase recycling rates and decrease costs for taxpayers.

### INITIATIVE 2:

#### Increase Recycling Rates Citywide Through Outreach and Education

- Information will be distributed through presentations at elementary, middle, and high schools, both public and charter in the designated target areas with the lowest recycling rates. Recycling clubs will be established in schools in order to: assist with school-level recycling efforts; inform and educate other students; and persuade students to commit themselves to taking charge of recycling in their own homes. Outreach efforts will also target parent organizations; student government; nonprofit and community organizations; and neighborhood groups.
- The City will initiate a publicity campaign through radio, newspapers, and flyers. The recycling office will be working with the Communications Office and the Department of Arts, Culture, and Tourism

on a recycling campaign that includes television spots and outdoor media.

### INITIATIVE 3:

#### Strengthen Enforcement of Recycling by Residents and Institutions

- The City will continue to expand enforcement of the recycling ordinance. Inspectors are issuing warnings and citations to residents who are not recycling.
- The City will set targets for large institutions (hospitals and universities) and establish rewards and penalties for participation.

### INITIATIVE 4:

#### Increase Access and Expand Opportunities for Recycling

- The City will increase the distribution of recycling bins.



- The Recycling Office will recruit volunteer interns from local colleges to assist with the recycling program.
- The Department of Public Works will help publicize Home Depot's free in-store recycling program for compact fluorescent light bulbs, which must be properly disposed.
- The City will require recycling bins at all city-sponsored events (Waterfire, CVS Race, Bike Race, Sound Session, etc). DPW will continue to take advantage of community events as opportunities to raise awareness.

### INITIATIVE 5:

#### Reduce Use of Paper and Increase Recycling in City Offices

- The City will form an interdepartmental Paperwork Reduction Team charged with reducing the use of paper

in all city departments. The team will identify strategies and options for paper waste reduction and will establish and monitor goals and timeliness for reducing the amount of paper consumed by city departments. This will not only save paper but also increase efficiency.

- The City will expand and reinforce recycling programs at City Hall and other municipal buildings, ensuring that each office has paper, plastic, glass, and can recycling.
- Some municipal offices are located in privately owned buildings. In these buildings, employees currently must either throw everything in the trash or recycle it themselves. The City will pilot a recycling program in municipal offices located in private buildings.
- The City will provide recycling services, receptacles, information, training, and educational materials (including presentations to young club members) to the Department of Recreation and the municipal recreation centers. Recycling clubs will also be established at the building level.

#### INITIATIVE 6:

##### Increase Recycling at Commercial and Multi-unit Housing

- State law requires all businesses to recycle. In February 2009, RIDEM will begin enforcing rules requiring them to recycle 17 waste streams including paper, steel, glass, aluminum and oil.
- The Recycling Office will identify barriers to recycling in under-performing locations

and actively assist with increasing recycling at key locations.

#### INITIATIVE 7:

##### Pilot a Composting Program

- Department of Public Works can work with RIRRC to sell compost bins at a reduced price. This waste reduction method will not attract rodents so long as fats and proteins are not composted. Composting reduces wasteflow to landfills, avoiding the production of methane and leachate in the landfills.

## LONG TERM GOALS

- In the long term, the City will encourage reuse and recycling of demolition and construction debris. At present, there is no staging area to store construction debris. Additionally, due to the foreclosure crisis, many houses throughout the city are falling into disrepair and will require demolition. The

City will implement a salvage program to find structural and architectural elements to be saved for reuse.

- The Parks Department could sell logs from the largest felled street and park trees to local mills (for lumber), furniture makers, or artists. Currently, all but the largest trees are chipped. For those tree butts that are too large to be chipped, the Parks Department pays to have logs hauled to landfills, and pays another fee to have the logs dumped. Selling the wood would turn a cost into income for the department. Lumber could be used in local “green” construction, a growing demand. City trees absorb carbon from the air and store it in their trunks, a benefit to greenhouse gas reduction. When trees decompose or get used as firewood, the carbon is released back to the air, reversing carbon storage gains. If the wood from city trees is used as lumber or furniture, the carbon will be stored long-term.







## Purchasing

Converting to green cleaning supplies will promote a healthier working environment, improve the safety of custodial workers, reduce Providence's environmental footprint, and creates a more sizable market for cost-effective high-performance green products.

**INITIATIVE 1:****Issue a Municipal Green****Purchasing Policy Executive Order**

- This will strengthen and make official the current purchasing practices, ensuring that all new appliances are Energy Star approved and environmentally friendly. This policy will include cleaning supplies, paper, and the procurement of services. The City has already started to switch to 100% post-consumer material for bathroom tissue and paper towels.
- The City will ensure that green cleaning products will be included when the Custodian, Maintenance, and Grounds contract is renewed.
- The Purchasing Policy will instate a requirement for recycled content in office paper and other paper products.







## Water

As more than 70 percent of the water produced by the Providence Water Supply Board is used outside the City, municipalities beyond Providence must champion water conservation efforts. As suburban development grows, protection of the watershed is our primary concern. Using less water also puts less pressure on our sewage treatment facilities, and uses less energy for water heating.





## ACCOMPLISHMENTS

- In 1989, Providence Water began its Residential Retrofit Program, a water conservation program involving the installation of residential water saving devices. The program conserves water and reduces strain on the sewer system through the distribution of retrofit kits and the education of homeowners on the benefits of water conservation. Providence Water has targeted its entire 70,000 plus retail customers and maintains an inventory of retrofit kits.
- Providence Water removed, dewatered, and disposed of accumulated sludge from two lagoons to replace lost storage capacity. Solar gauges have been installed on above ground fuel storage tanks.
- Since 1996, nearly 37,000 feet of water main were replaced at 88 locations, resulting in a substantial reduction in water waste.

## NEXT STEPS

### INITIATIVE 1:

#### Phase Out Bottled Water Use in Municipal Buildings

- At the 2008 US Conference of Mayors in Miami, Mayor Cicilline co-sponsored a resolution titled "Supporting Municipal Water Systems." The resolution encourages cities to phase out, where feasible, government use of bottled water and promote the importance of municipal water.
- The City is currently identifying ways to curtail and possibly eliminate its use of bottled water.

### INITIATIVE 2:

#### Conserve Water Through Technological Innovation and Efficiency

- City Hall is looking into installing waterless urinals, which will result in saving thousands of gallons of water.
- The City will support landscape regulations to reduce water use.

- Providence Water will achieve steady per capita water use reduction over the next 20 years.
- The City will support the Providence Water Supply Board in its efforts to protect the watershed lands of the Scituate Reservoir and develop a water protection policy plan.
- Providence Water will review the residential retrofit program before the next Water Supply System Management Plan due in November 2008, ensuring that the kits are up-to-date with current low-flow standards. Providence Water will establish a goal for the number of houses reached through the revised retrofit program.



## Green Jobs

The green economy holds tremendous potential as a catalyst for the creation of new jobs and an opportunity to pursue energy independence while mitigating the harmful effects of global warming.

Rhode Island can transform its economy by investing in proven and emerging green technologies, jumpstarting the market in green product development, and creating jobs in various economic sectors from manufacturing to services to high level research and development. Green jobs translate into well-paying jobs and result in a stronger, locally-driven economy and a cleaner, greener environment.

On September 27, 2008, Mayor Cicil-line signed the Green Jobs Now petition that encourages the federal government to invest in buildings, public infrastructure, and renewable energy technologies. In signing this petition, the Mayor reinforced his commitment to an inclusive green economy that creates pathways out of poverty, particularly in urban centers. Our city and state have a willing workforce as well as a viable manufacturing base that can be retooled and restored to its full potential and employ hundreds of workers.

Providence is planning for the new green economy. Rhode Island can, and should, seize the opportunity to create economies of scale, accelerate the production of green jobs, and exploit innovation – from clean technology and renewable energy production to green roofs on buildings and creative transit strategies.



## ACCOMPLISHMENTS

- The City's transit plan – Transit 2020 – is a model of innovation and forethought for a 21st century world, with strong recommendations for carbon emission reduction measures and increased mass transit. The construction, maintenance, and operation of an expanded transit system will create hundreds of green jobs. Moreover, the people who need these jobs also depend on an effective, seamless transit system to get them there.
- The City's current school construction projects incorporate green design elements: Hanley Tech; Central High; and the Nathan Bishop School have been renovated and each of these projects has created green construction jobs.
- In the private sector, the former St. Francis Chapel hotel construction project is employing green building standards.
- Our workforce development partners and city-related agencies, which include NetWork RI, Providence/Cranston Workforce Solutions, and Groundwork Providence, are incorporating green job training into their educational and job readiness programs.
- The City's Pathways to Opportunity work has focused closely on employment – not only making sure people are ready to work, but also making sure that jobs are available.



green job preparation into their training programs so that workers are ready for the green economy. Key training areas will include auditing structures for energy performance, retrofitting buildings to improve energy efficiency, weatherization, teaching advanced construction methodologies, tree pruning and planting, installing green roofs and drought tolerant landscapes, and potentially brownfield remediation. These areas will see an increased demand in the next few years due to the escalating costs of heating and cooling public buildings, the City's tree-planting pledge, and the City's commitment to facilitate the remediation and development of brownfield sites, as stated in the Comprehensive Plan.

### INITIATIVE 2: Identify Key Sectors and Provide Resources

- Green technology is projected to be a major growth area for economic development in the 21st century. It represents an enormous opportunity for Rhode Island that we must seize, especially in these difficult economic times. Recognizing the need to build for the future with visionary, long-term planning, the City will identify one or two areas as key to economic development. The City will focus its funds

and efforts on cultivating these areas, whether they are solar-panel manufacturing, renewable energy production (IE wind power or wave energy), or clean tech. By developing a strong federal-state-local partnership devoted to green jobs that cannot be outsourced, Rhode Island has the potential to become a leader in this field.

- The City will support an interim and eventual permanent platform in the form of a "Green Resource Center" that would offer an appropriate menu of curricula (classroom, experiential and online), training in green building standards, a repository of green building products, and energy modeling software. The Center would also provide opportunities for workforce development – a conduit that can bridge the gap between business and academia, connect research to product and facility design, and match employers with job seekers on the ground.

Besides Boston, there are only a handful of green resource centers in the United States, most notably in the west (Portland, OR and several California cities). These centers have become hubs for academics as well as practitioners in green building.

## NEXT STEPS

### INITIATIVE 1: Support Green Job Training

- The City will continue to collaborate with its workforce development partners and city-related agencies to integrate





## Community ... Beyond City Hall

In order to sustain the achievements we have made and move forward with new initiatives, sustainability must be embraced by the entire Providence community. The combined efforts of City government and Providence citizens ensure sustainable change and an atmosphere of collective action.



## ACCOMPLISHMENTS

- The Providence Warwick Convention and Visitors Bureau (PWCVB) has established a Green Certification Program through which companies can work to meet environmental standards. The Program, motivated by the need to increase recycling in the business sector, focuses on operational standards. It offers self-certifications that result in a frame or window decal and inclusion on the PWCVB website.

community. The students install CFLs, free of charge, in low to middle-income households in the community. The goal is to reach 15,000 homes by 2009. The City will support Project 20/20 to help them reach their goal..

- The City will create an opportunity for the Convention Center to bill an event as “green” if revenue from ticket sales goes to RECs to offset carbon emissions from the event.

### INITIATIVE 2: Increase Recycling Awareness

- The City will support programs outlined in Recycling & Waste Management section.

### INITIATIVE 3: Bolster Community Involvement in Stormwater Management

- The City will educate residents about benefits of disconnecting gutters from direct feed to sewer system and work with retailers to provide in-store training and demonstrations.

### INITIATIVE 4: Green Home/Green Event/Green Convention

### INITIATIVE 5: Increase Community Involvement in Sustainability Practices

- The City will establish a contest for permeable planting strips (the strip on the sidewalk outside of one’s house). Residents can plant flowers or small bushes, then send in photos of their planting strip and judges will determine a winner.
- The City will build partnerships to reach out to the community with sustainability practices that households can implement. The City has already partnered with CW28 as part of an outreach campaign for recycling and greening programs.

## NEXT STEPS

Providence must educate and engage the community about energy conservation and environmental sustainability. The City will find ways to make increasing sustainability a part of civic culture in Providence for all its residents. The following initiatives offer a few ways to engage the community.

### INITIATIVE 1: Change-A-Bulb Campaign

- Project 20/20 was started in spring 2008 by Brown University students to replace incandescent lighting with more efficient light bulbs, also known as compact fluorescent lamps (CFLs), with the goal of reducing carbon emissions in the greater Providence







## Ensuring and Measuring Our Success

Celebrating our past achievements and looking toward the future, Providence will act sustainably and strive to implement new, innovative practices that help us continue to thrive.

The City is in the process of identifying metrics and concrete goals to measure sustainability and conservation efforts. The ICLEI green house gas emissions inventory is nearly complete, at which point the City will set an emissions reduction target and formulate an action plan. Where applicable, the City will continue to implement standards and measurable goals for energy reduction, water conservation, green space expansion, and transit use.





#### **INITIATIVE 1:**

##### **Expand Sustainability-Oriented Operations in City Hall**

- All departments will include sustainability as an integral part of management decisions.
- The City will seek to identify funding for a Sustainability Officer to oversee the coordination of energy-saving projects throughout the City. The Sustainability Officer will assist in the development of policies and procedures related to efficient energy utilization and energy conservation for City-owned and leased equipment and facilities; develop, implement, and monitor an approved Providence energy Management Plan; provide consultation and oversight for the City's energy-saving projects; review and analyze data, and make recommendations to reduce the overall cost of building operations; and coordinate and supervise the work of professional, para-professional consultants, contractors or other personnel.



## What steps can you take to help make Providence a **greener** city?

[illegible]