Mayor’s Letter

Dear Richmond Community,

On April 14, 2012, I unveiled the RVAgreen Sustainability Plan that resulted from a year-long process of collaboration with many community stakeholders, businesses, and residents. We developed the RVAgreen Plan to improve the quality of life for residents, create a healthy environment, and enhance economic opportunity in the City of Richmond.

The creation of RVAgreen was only the beginning. The implementation of the plan was where the hard work began. The RVAgreen Plan was conceived and developed as a community-based plan. It is in collaboration with the community that we are moving our sustainability efforts forward.

I’m proud to present the first update to the RVAgreen Plan called Moving Sustainability Forward. It includes an ambitious goal to reduce city government and the community’s greenhouse gas emissions by 80% by 2050 using 2008 emissions as the baseline. That equates to a 1.8% reduction every year. This goal is essential for a vibrant and resilient Richmond.

To assess how we’re doing on our sustainability goals and share progress in a meaningful way, we developed a set of twelve broad indicators. The indicators provide a more holistic view of how we’re doing as a community to improve the quality of life for residents, create a healthy environment, and enhance economic opportunity in the City of Richmond. Moving Sustainability Forward also tracks the headway we’ve made in achieving the 55 sustainability initiatives that we established in the RVAgreen Plan.

We will report annually to communicate the good news and tell you about the areas that need improvement. This will hold all of us accountable for our shared priorities. Thank you to everyone who is working with us to forge ahead on a more sustainable path.

Sincerely,

Dwight C. Jones
Mayor
INTRODUCTION

Moving Sustainability Forward is about providing a holistic view of how we’re doing on our sustainability goals and sharing information in a meaningful way with the community. We will continue to measure and share progress on an annual basis in this format.

We developed the twelve indicators you’ll see in this report to communicate high level progress in the five focus areas laid out in the RVAgreen Sustainability Plan: economic development, energy, environment, open space and land use, and transportation. We established the twelve indicators based on research into current best practices across the country.

To communicate progress on the indicators, we’re using arrows to show whether the indicators should be increasing or decreasing. In the future, we will establish specific numeric targets for each indicator.

In addition to the twelve indicators, Moving Sustainability Forward includes a Climate Action section where we report on Community and Municipal Greenhouse Gas (GHG) emissions. We provide highlights from the first update to the Community and Municipal GHG inventory since these baseline inventories developed.

Moving Sustainability Forward also shows how each of the five focus areas and the initiatives contained within each Focus Area connect to and influence four Broader Impacts of sustainability:

- **Economic Opportunity**: provide a good return on public investment, grow the community by providing economic and employment opportunities
- **Healthy Environment**: clean air, water, and land, healthy built environment, preserve resources, minimize energy use and waste
- **Social Equity**: fair access to housing, education, economic activities, services, facilities and resources, and full participation in the political and cultural life of the community
- **Vibrant Community**: walkable neighborhoods, mixed-uses and affordable housing, accessible green spaces, variety of transportation options, and streets for all users—pedestrians, bicyclists, transit riders, and drivers

MORE INFORMATION
For more information, including details and data sources for the twelve indicators, methodology and data for the Community and Municipal Greenhouse Gas (GHG) inventories, and the City’s 2014 Annual Energy Report please visit www.richmondgov.com/sustainability

CONTENTS

- Economic Development page 1
- Energy page 4
- Environment page 6
- Open Space & Land Use page 8
- Transportation page 11
- Climate Action page 13
- 55 RVAgreen Plan Initiatives page 14

Office of Sustainability
Alicia Zatcoff, Sustainability Manager
Larry Burkett, Energy Manager
Amy George, Management Analyst

Graphic Design by Megan Maloney
To support a vibrant and sustainable community, the City of Richmond uses a strategic approach to advance its economic development goals while supporting its environmental and social equity goals. Initiatives moving forward include those that drive investment, create new jobs, support existing businesses and encourage redevelopment in the community. Efforts are also underway to improve city infrastructure and the accessibility of local, healthy, and sustainable food.

**GOAL**
Support a vibrant and sustainable community

**OBJECTIVES**
Create opportunities for Richmond businesses to enhance their overall sustainability

Create more green jobs

Make local, healthy, and sustainable food accessible and affordable

Improve the state of good repair and efficiency of city infrastructure

**HIGHLIGHT**

**BEAUTIFUL RVA**
Started in Jan. 2013, Beautiful RVA is a network of community leaders working collaboratively to engage and empower citizens to foster an improved quality of life for all in greater Richmond through public horticulture, urban greening, and community-based beautification. Key partners are Lewis Ginter Botanical Garden, City of Richmond, Virginia Commonwealth University and Groundwork RVA.

**BY THE NUMBERS:**
- 275+ community leaders
- 65+ organizations represented
- $80,000 grant funding
GRANT FUNDING
Grant funding is an important part of the City of Richmond's strategy to support sustainability related economic development initiatives.

ECONOMIC DEVELOPMENT AND HOUSING REVOLVING LOAN FUND
In July 2013, the City launched a $20 million Economic Development and Housing Revolving Loan Fund Program to create a business loan pool to provide gap financing for eligible projects, through the U.S. Housing and Urban Development’s Section 108. The funds will assist projects, including affordable housing that will have positive economic and community development benefits within targeted neighborhoods in the City of Richmond.

ARTS AND CULTURAL DISTRICT MICRO GRANT PROJECT
In Aug. 2013, the City and CultureWorks launched the Arts and Cultural District Micro Grant Program to provide grants to increase the activity and vibrancy of the District. Project support grants up to $1,000 can fund events, installations or activities within the District. Capital improvement grants up to $2,500 can fund items that increase the ability to host arts and cultural activities for the public.

FAÇADE IMPROVEMENT PROGRAM
In Jan. 2014, the City launched a $450,000 Façade Improvement Program (FiP) in the Arts and Cultural District to increase business activity and vibrancy of the District by funding historic rehabilitation and design improvements of storefronts. Eligible projects may be reimbursed for up to one-half of eligible costs, up to $40,000.

ARTS AND CULTURAL DISTRICT
In May 2014, Mayor Dwight C. Jones announced a $200,000 grant from Altria for the Arts and Cultural District. The bulk of the funds will focus on façade improvements. The grant will also support marketing and murals within the District.

N2N INITIATIVE
In Feb. 2014, the City’s Neighbor-to-Neighbor (N2N) Initiative accepted its fourth round of applications for the Love Your Block grants as part of a $10,000 grant from Cities of Service in partnership with the Home Depot Foundation, for the Love Your Block Program. Love Your Block is a tested, high-impact service strategy in which community members are engaged in revitalizing their neighborhoods one block at a time.

IBM SMARTER CITIES CHALLENGE GRANT
In 2013, the City of Richmond was one of only 32 cities selected worldwide to participate in the very competitive IBM Smarter Cities Challenge grant. The Richmond project carried an approximate value of $400,000 at no cost to taxpayers and enabled businesses, citizens, and community leaders to identify, champion and produce economic opportunity in targeted neighborhoods.

HIGHLIGHTS

RELAY FOODS
In September 2014, Relay Foods, a leading online grocery store and farmers market, announced a major investment to expand its Richmond fulfillment center.

BY THE NUMBERS:
$710,000+ investment
75 new jobs in the City
$3 million increase in sales of Virginia-sourced meats, produce, dairy products, and value-added foods over the next three years
$406,000+ worth of meats, produce, dairy products and other foods from Virginia producers over the next three years

STONE BREWING CO.
In Oct. 2014, Stone Brewing Co., the 10th largest craft brewe in the United States, announced a major investment to construct a production brewery, packaging hall, destination restaurant, beer garden, retail store and administrative offices in the City of Richmond. In addition to the project’s economic advantages, Stone’s strong commitment to sustainability and sourcing local ingredients in all of their operations will provide long-term benefits.

BY THE NUMBERS:
$74 million investment
288+ new jobs in the City
20+ states offering
40+ sites competed

OFFICE OF COMMUNITY WEALTH BUILDING
In 2014, Mayor Dwight Jones established the first Office of Community Wealth Building in the country to coordinate the City of Richmond’s comprehensive poverty reduction and wealth building initiative. By design, the initiative spans different sectors and policy areas that have traditionally been separate. It also requires the effective collaboration of partners from all sectors of the community.

RICHMOND GROWS GARDENS
Richmond Grows Gardens, the City’s Community Garden Program to facilitate the planting of community gardens on city owned land, has established seven gardens: An Access in Food Community Garden, Broadrock Community Garden, McDonough Community Garden, Owl Orchard Community Garden, Stockton Community Garden, Roots of Woodville Neighborhood Garden, and Uptown Community Garden.
Green Jobs

**TARGET** INCREASE CLEAN SECTOR JOBS AS A PERCENTAGE OF TOTAL JOBS

Clean sector jobs are identified in the Bureau of Labor Statistics’ Standard Occupational Classification code system as either “Green Enhanced Skills, Green Increased Demand, or Green New & Emerging.” Some sectors of our local economy where green jobs exist include renewable energy, energy efficiency, green construction, conservation, and recycling.

Access to Healthy Food

**TARGET** INCRESSE IN NUMBER OF RESIDENTS LIVING WITHIN 1 MILE OF A GROCERY STORE, ¼ MILE OF OTHER HEALTHY FOOD OPTIONS

Local, healthy and sustainable food should be accessible and affordable. Healthy food options are places where local, healthy and sustainable food is available.


**TARGET** INCREASE IN NUMBER OF RESIDENTS LIVING WITHIN 1 MILE OF A GROCERY STORE, ¼ MILE OF OTHER HEALTHY FOOD OPTIONS

- Access to Both: 20%
- Access to a Grocery Store Only: 55%
- Access to Other Healthy Food Choice: 24%
- Other Healthy Option but no Grocery Store: 4%
- Access to Neither: 20%

Options in City of Richmond

- 36 grocery stores
- 6 farmer’s markets
- 21 community gardens
- 4 healthy corner stores = Tricycle Gardens program participants
- 3 neighborhood markets = focus on local/healthy food but not a full service grocery store
Energy

To enhance Richmond’s energy resilience, the City is reducing energy use throughout the community while increasing renewable energy capacity and diversifying energy sources. Initiatives moving forward include those that reduce energy consumption in city government, increase alternative fuel vehicles in the city’s fleet, improve energy conservation and increase energy efficiency in the community.

BROADER IMPACT

- cleaner environment
- economic opportunity
- quality of life
- social equity

GOAL

Enhance Richmond’s energy resilience

OBJECTIVES

- Reduce energy consumption in City government operations
- Lower building energy consumption citywide
- Increase the use of alternative energy sources

HIGHLIGHTS

ENERGY CONSERVATION

From 2010 through 2013, the City of Richmond implemented energy conservation measures saving $3.1m, 26 m kWh of energy and 13,444 metric tons of CO2 emissions. The measures included electricity rate savings, building automation, HVAC and lighting controls, IT computer hibernation and print optimization programs as well as LED traffic signal conversions of all 520 signalized intersections in the city and compressed natural gas (CNG) vehicles in the city’s fleet.

BY THE NUMBERS:

- $3.1 million saved
- 26 m kWh of energy saved = enough to power 2,167 homes for one year
- 13,444 metric tons of CO2 emissions

RENEWABLE ENERGY

The City of Richmond purchased 1.5m kWh of renewable energy or approximately 1% of the total energy consumed by the city government in 2014. This purchase helped Fire Station 17 receive its LEED Silver Certification and is helping Martin Luther King Middle School receive its LEED Silver certification.

SOLARIZE RVA

Solarize RVA, is a residential solar group buying program led by the Richmond Region Energy Alliance (RREA). In 2014, Solarize RVA generated 245 leads, facilitated 19 installed projects for 105 kWh renewable energy capacity, and held 6 solar energy and energy efficiency community workshops that led to 30 home check-ups.
**Alternative Energy**

*TARGET INCREASE RENEWABLE ENERGY CAPACITY WITHIN THE COMMUNITY*

The Department of Mines, Minerals and Energy (DMME) tracks solar and wind installations and provides data on the capacity of these installations as watts net metered.

**Energy Use**

*TARGET DECREASE ENERGY CONSUMPTION WITHIN THE COMMUNITY*

Dominion Virginia Power tracks and provides kWh energy consumed by sector: residential, commercial, industrial and governmental which includes federal, state and local government facilities within the City of Richmond.

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**Cumulative Alternative Energy Installed in Watts**

2008: 4,000

2013: 1,271,070

**Energy Use Decrease Within the Community 2008 to 2013**

- Residential: + .39%
- Commercial: - 6.44%
- Governmental: + 2.41%
- Industrial: - 19.99%

**Energy Use Change Per Customer 2008 to 2013**

- Residential: 3,396,341 mWh → 3,253,503 mWh
- Governmental: 3,253,503 mWh → 3,253,503 mWh

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**Highlights**

**LEED**

Leadership in Energy and Environmental Design (LEED) Projects provide many benefits including lower energy use and reduced operating costs. The City of Richmond builds new construction and major renovation projects to a minimum LEED Silver standard.

**By the Numbers:**

- 81 LEED projects in Richmond
- 3 Platinum
- 7 Gold
- 17 Silver
- 4 Certified
- 50 in certification process

**City of Richmond LEED Projects**

- 2 Gold elementary schools
- 1 Gold high school
- 1 Silver middle School
- 1 Silver Fire Station
- 2 Silver elementary schools under construction

**CNG**

The City, Richmond Public Schools and Greater Richmond Transit Company (GRTC) are transitioning their fleets to vehicles that run on cleaner, less expensive compressed natural gas (CNG).

**By the Numbers:**

- 1,902 vehicles in City’s fleet
- Approx. 800 vehicles will be replaced by 2020 at the City’s current rate of replacement to CNG fuel

**GRTC fleet**

- 41 large (>35 ft) CNG buses, which is an increase of 33 since September 2013
- 30 smaller (~ 26 ft) Para Transits, which is an increase of 15 since September 2013
Environment

To create a healthy urban environment, the City works to preserve the natural surroundings and resources that impact the health, well-being and quality of life of the community. Initiatives moving forward include those that protect and enhance water resources, improve air quality and minimize waste in the community.

BROADER IMPACT

- **cleaner environment**
- **quality of life**
- **social equity**
- **economic opportunity**

GOAL

Create a healthy urban environment

OBJECTIVES

- Protect and enhance Richmond's water resources.
- Enable the Richmond community to use water wisely.
- Improve the City's solid waste system.
- Strive to continuously improve the quality of Richmond's indoor and outdoor air.

HIGHLIGHT

**CURBSIDE VALUE PARTNERSHIP**

In August 2014, Richmond was selected as one of four cities to receive grant funding and partner with Curbside Value Partnership (CVP) for a first of its kind private/public recycling agreement called CVP's The Recycling Partnership to expand the city's recycling program citywide by the end of 2015.

**BY THE NUMBERS:**

- **$559,000** in funding
- **$350,000** to purchase 95-gallon recycling carts, each equipped with a radio frequency identification device (RFID) tag tracking mechanism
- **$70,000** for expanded community outreach/education campaign and the initial phase-in of 6,000 carts for alley recycling in designated neighborhoods
- **$139,000** “in-kind” from CVP to expand education and community outreach
Solid Waste

**TARGET INCREASE IN COMMUNITY RECYCLING RATE**

The recycling rate measures the amount of recycling as a % of total solid waste (recycling + landfill).

**PROGRESS**

- **39.5%** increase 2008 vs 2013

Water Quality

**TARGET INCREASE IN NUMBER OF ACRES TREATED BY BEST MANAGEMENT PRACTICES (BMP)**

The Best Management Practices (BMP) measured by this indicator are water pollution controls that are physical installations such as retention ponds, rain gardens, and other infrastructure designed to reduce stormwater runoff into the James River and Chesapeake Bay.

**PROGRESS**

- **20%** increase 2008 vs 2013

Air Quality

**TARGET DECREASE IN THE NUMBER OF UNHEALTHY AIR QUALITY DAYS**

Air quality is measured on an Index referred to as the AQI that runs from 0 to 500. The higher the AQI value, the greater the level of air pollution and health concern on a given day.

**PROGRESS**

- **93%** decrease 2008 vs 2013

HIGHLIGHTS

STREAM RESTORATION
From 2013-2014, the City of Richmond Department of Public Utilities received $3.57 million in matching grant funds from the Virginia Stormwater Local Assistance Fund for five stream restoration projects that will return the streams to their natural conditions, mitigate flooding, and reduce pollution from stormwater runoff.

GILLIES CREEK TREE PLANTING
In Dec. 2014, a Chesapeake Forest Fund Alliance-Altria Group partnership project planted native trees along a section of the EPA-Assessed Impaired Gillies Creek in Gillies Creek Park to mitigate water pollution and climate change impacts. The trees also help beautify a historically impoverished area of the city.

**BY THE NUMBERS:**

- **25** volunteers
- **30** trees planted
- reduce 333.7 pounds of nitrogen and 54 pounds phosphorous from fertilizers leaching into Gillies Creek
- uptake of nitrogen from equivalent of 123 households
- mitigate the equivalent annual greenhouse emissions of 50 passenger vehicles
Open Space & Land Use

To develop a thriving cityscape that connects people to natural spaces, the City works to preserve the natural and open spaces that make Richmond such a desirable place to live, work and play while encouraging responsible development that enhances the value of these resources. Initiatives moving forward include those that provide more affordable and sustainable housing options, redevelop vacant and blighted property, enhance open space, and grow the urban tree canopy.

BROADER IMPACT

quality of life  social equity  cleaner environment  economic opportunity

GOAL

Develop a thriving cityscape that connects people to natural spaces

OBJECTIVES

Encourage 24/7 communities with more sustainable and affordable housing options throughout the city

Increase accessibility, quantity, and quality of public space

Increase Richmond’s tree canopy

Protect historic building stock and promote the use of vacant and blighted property

HIGHLIGHT

EPA GRANT

In June 2013, the City of Richmond received a highly competitive Environmental Protection Agency (EPA) Community-Wide Brownfields Assessment Grant for Petroleum and Hazard Substance Sites. The grant covers costs for Phase I and II Environmental Site Assessments and will facilitate the assessment, remediation, and redevelopment of Enterprise Zone Brownfield sites.

BY THE NUMBERS:

$400,000 grant award
$200,000 designated for Petroleum Sites
$200,000 designated for Hazardous Substance Sites

1 of 240 grant awardees nationwide
October 1, 2013 - September 30, 2016 grant period
City has received 6 Brownfields grants totaling $1.4 million since the program’s inception in 1994
ENRICHMOND

Enrichmond, is a foundation serving Richmond’s people, parks and public spaces. In May 2014, Enrichmond partnered with the City’s Departments of Parks and Recreation and Public Works, The Martin Agency, Friends of Chimborazo Park, Blue Bee Cider, and Goat Busters for a Community Impact Project-Chimborazo Orchard Goatscaping. Instead of heavy machinery, goats were used to clear kudzu and brush from the future site of the city’s first urban orchard.

BY THE NUMBERS:

48 goats
2 Great Pyrenees herd dogs
7 days of goatscaping
3 acres of land cleared
40 apple trees planted

October 1, 2013 - September 30, 2014 operating year

RICHMOND TREE STEWARDS

Richmond Tree Stewards are trained citizen volunteers whose mission is to promote and improve the health of city trees.

BY THE NUMBERS:

3,873 trees helped
1,543 individuals educated
3,207 total volunteer hours
100 community volunteers
72 stewards participated
10 new stewards certified

October 1, 2013 - September 30, 2014 operating year

BETTER BLOCK PROJECT

In June 2014, Sports Backers, BikeWalk RVA and partners organized Richmond’s first Better Block Project to temporarily transform two blocks of N. 25th Street into a walkable, bikeable, vibrant place for people to shop and gather with new crosswalks and bike lanes, miniature parks and street furniture, and “pop-up shops.”

GREENING AMERICA’S CAPITALS

In Sept. 2014, after a national competition, Richmond was selected as one of five capital cities to receive free technical assistance from the EPA through its Greening America’s Capitals program. The EPA will assist Richmond to design options for more parks and open spaces, and to incorporate green infrastructure to better manage stormwater runoff on Jefferson Ave. in the city’s Union Hill neighborhood.
Access to Open Space

**TARGET** INCREASE IN NUMBER OF RESIDENTS LIVING WITHIN ¼ MILE OF A CITY PARK OR OPEN SPACE

City owned parks and open spaces provide places for people to exercise, play, relax and connect with nature.

Access to Open Space Map http://bit.ly/1xUBy52

Urban Tree Canopy

**TARGET** INCREASE IN NUMBER OF TREES PLANTED ON PUBLIC PROPERTY

This indicator only measures trees planted on public property because the city can track and measure this on an annual basis. Trees planted on private property in the city are just as important to the urban tree canopy. An urban tree canopy survey that measures the entire tree canopy throughout the city is conducted every few years.

Housing Cost Burden

**TARGET** DECREASE IN PERCENTAGE OF HOUSEHOLDS PAYING MORE THAN 30% OF THEIR INCOME FOR HOUSING

According to the U.S. Department of Housing & Urban Development, housing is considered unaffordable if its costs more than 30% of a household or family’s income.

JAMES RIVER PARK SYSTEM

The James River Park System contains world class mountain biking and hiking trails along the James River in the heart of downtown Richmond.

**BY THE NUMBERS:**

- **854,000** visitors April-Nov. 2014
- **1 million+** visitors in 2015
- **$12.7 million** economic benefit to the community*

*based on the $16 per day per user estimate for park economic impact from the 2014 Virginia Outdoors Plan

GREENWAYS

In Oct. 2013, two major projects supported the Richmond Riverfront Plan and improved the city’s growing network of greenways. The Virginia Capital Trail Foundation (VCTF) and the City of Richmond jointly opened the Virginia Capital Trail western trailhead at Great Shiplock Park. The Richmond Regional Planning District Commission (RRPDC), City of Richmond and partners improved trails and river access on Chapel Island.

**BY THE NUMBERS:**

- **Great Shiplock Park:**
  - $550,000 raised by VCTF from private sources
  - 9+ funding partners
  - 29 of 53 miles completed of Virginia Capital Trail from Richmond to Jamestown
  - 2015 completion date for entire 53 miles

- **Chapel Island:**
  - $50,000 grant RRPDC secured from the Virginia Coastal Zone Management Program
  - 1,200 volunteer hours
  - 5+ partner organizations
To transform Richmond into a multi-modal city, the City is working to shift transportation choices and patterns throughout the community. Initiatives moving forward include those that reduce vehicle miles traveled, encourage alternate modes of transportation, and make Richmond a bike and pedestrian friendly city.

**BROADER IMPACT**

- social equity
- cleaner environment
- quality of life
- economic opportunity

**GOAL**

Transform Richmond into a multi-modal city

**OBJECTIVES**

- Reduce citywide Vehicle-Miles-Traveled (VMT) per capita
- Manage parking supply to encourage alternate modes of transportation
- Make Richmond a bike and pedestrian friendly city

**BROADER IMPACT**

To transform Richmond into a multi-modal city, the City is working to shift transportation choices and patterns throughout the community. Initiatives moving forward include those that reduce vehicle miles traveled, encourage alternate modes of transportation, and make Richmond a bike and pedestrian friendly city.

**HIGHLIGHTS**

**MAIN STREET STATION**

In April, 2014, the City of Richmond received a grant to advance the third and final phase of the multi-year renovation of Richmond’s iconic Main Street Station into a multimodal transportation center.

**BY THE NUMBERS:**

- $10 million grant
- $48.5 million project cost for third phase
- 2016 anticipated completion date
- 8+ modes of transportation served
- 2 electric vehicle charging stations
- 2 Welcome Centers-Visitor and Bicycle
- 65 million travelers per year pass by

**COMPLETE STREETS POLICY**

In Oct. 2014, the City of Richmond adopted a Complete Streets Policy to balance the access, mobility and safety of all users while creating a stronger and healthier community. City Administration has 12-months to develop implementation guidelines for the policy.
Alternate Transportation

**TARGET INCREASE IN PERCENT OF TRIPS BY MODE SHARE OTHER THAN SINGLE OCCUPANT VEHICLE**

When people choose a means of travel other than driving alone in a car, they are choosing an alternate mode that is often more convenient, healthier, more cost-effective and better for the environment.

### Richmond Commuting

<table>
<thead>
<tr>
<th>Mode</th>
<th>Percentage of all workers who did not drive alone to work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Transportation</td>
<td>31.12%</td>
</tr>
<tr>
<td>Work from Home</td>
<td>31.43%</td>
</tr>
<tr>
<td>Walk</td>
<td>0%</td>
</tr>
<tr>
<td>Bike</td>
<td>72%</td>
</tr>
<tr>
<td>Carpool</td>
<td>7%</td>
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</table>

### Alternate Transportation

<table>
<thead>
<tr>
<th>Mode</th>
<th>Daily VMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Transportation</td>
<td>5,044,852</td>
</tr>
<tr>
<td>Work from Home</td>
<td>4,733,627</td>
</tr>
<tr>
<td>Walk</td>
<td>3,869</td>
</tr>
<tr>
<td>Bike</td>
<td>4,645</td>
</tr>
<tr>
<td>Carpool</td>
<td>11,102</td>
</tr>
</tbody>
</table>

### TIGER GRANT

In Sept. 2014, the Virginia Department of Rail and Public Transportation, the GRTC, the City of Richmond and Henrico County were awarded a highly competitive TIGER grant to construct the Broad Street Bus Rapid Transit (BRT) system to improve reliability and travel times for transit riders, improve access to employment and health care, and support economic development throughout the Broad Street Corridor.

### BY THE NUMBERS:

- **$9.4 billion** in applications submitted nationwide
- **$600 million** total funding available nationally
- **$24.9 million** grant award
- **$53.8 million** project cost
- **7.5 mile** system

### BIKE AND PEDESTRIAN FRIENDLY

Richmond is becoming a bike and pedestrian friendly community!

- 20 miles of bike infrastructure by Sept. 2015 in time for the 2015 Road World Cycling Championships
- Bronze level Bicycle Friendly Community by the League of American Bicyclists
- Bronze level Bicycle Friendly Business for City Hall, Marshall Street Plaza and John Marshall Courts complex
- Annual Bicycle Commuter Challenge-hosted by BikeWalk RVA, the City of Richmond and partners to show how easy, affordable, and healthy bike commuting can be
- Annual RVA Streets Alive!-hosted by Sports Backers, the Mayor’s Healthy Richmond Campaign, and the Richmond City Health District to close streets to vehicles and open streets to running, walking, biking and other physical activities

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**PROGRESS**

- **1%** increase 2008 vs 2013

**VMT**

**TARGET DECREASE PER CAPITA OF DAILY VEHICLE MILES TRAVELED (VMT)**

Daily Vehicle Miles Traveled (VMT) is an estimate by the Virginia Department of Transportation based on traffic counts and lane miles. It is an indicator of all motorized vehicle travel levels in the city.
Climate Action

The Climate Action section sets an ambitious goal to reduce city government and the community’s greenhouse gas emissions by 80% by 2050 using 2008 emissions as the baseline. That equates to a 1.8% reduction every year. This goal is essential for a vibrant and resilient Richmond. We also report on Community and Municipal Greenhouse Gas (GHG) emissions in order to track progress toward meeting the GHG reduction goals.

BROADER IMPACT

- social equity
- cleaner environment
- quality of life
- economic opportunity

GOAL

Reduce total GHG emissions by 80% by 2050 (2008 baseline)

OBJECTIVES

Twelve Indicators and fifty-five Initiatives in Moving Sustainability Forward contribute to reducing GHG emissions

The Sustainability Office conducts GHG emissions inventories annually at both the municipal and citywide scale

The Sustainability Office tracks and reports on municipal and community progress in reducing GHG emissions

Community GHG Emissions

TARGET DECREASE COMMUNITY GHG EMISSIONS BY 80% BY 2050 OR 1.8% PER YEAR

PROGRESS

- Residential: 5.59%
- Commercial: 23%
- Waste: 12%
- Transportation: 38%
- Other: 1%

2013 Emissions:
- Residential
- Commercial
- Industrial
- Transportation
- Waste
- Other

Community GHG Emissions, 2008 vs 2013

Municipal GHG Emissions

TARGET DECREASE CITY GOVERNMENT GHG EMISSIONS BY 80% BY 2050 OR 1.8% PER YEAR

PROGRESS

- Buildings & Facilities: 27%
- Streetlights & Traffic Signals: 11%
- Water: 16%
- Wastewater Facilities: 10%
- Vehicle Fleet: 17%
- Employee Commute: 12%
- Refrigerants & Fire Suppressants: 8%
- Solid Waste, Scope 3: 1%

2013 Emissions:
- Buildings & Facilities
- Streetlights & Traffic Signals
- Water delivery Facilities
- Wastewater Facilities
- Vehicle Fleet
- Employee Commute
- Refrigerants & Fire Suppressants
- Solid Waste, Scope 3

Municipal GHG Emissions, 2008 vs 2013

- Street & Traffic Lights: -24.83%
- Buildings & Facilities: -5.4%
- Water: -5.36%
- Refrigerants & Fire Suppressants: -27.77%
- Solid Waste, Scope 3: -20.58%
- Employee Commute: -19.27%
- Fleet: -23.69%
- Wastewater*: +40.24%

* Increase mostly due to chemical treatment replaced by UV treatment
<table>
<thead>
<tr>
<th>INITIATIVE</th>
<th>SUMMARY</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a Green Business Support and Recognition Program</td>
<td>A program to provide resources and recognition for businesses to improve their overall energy use and environmental footprint</td>
<td>Developing</td>
</tr>
<tr>
<td>Create a one stop resource center</td>
<td>An online clearinghouse for information, resources, and best practices on energy efficiency, clean energy, and other sustainable practices</td>
<td>Developing</td>
</tr>
<tr>
<td>Educate landlords on the benefits associated with Green Leases for both</td>
<td>Create a training or marketing program informing tenants and landlords of the opportunities a green lease can offer</td>
<td>Developing</td>
</tr>
<tr>
<td>residential and commercial buildings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide a tax credit to encourage existing businesses to be more</td>
<td>Tax incentives that target the creation or increase of specific occupations that transition into the new economy within the City</td>
<td>Developing</td>
</tr>
<tr>
<td>sustainable and to attract new businesses to the City</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop a Green Jobs Training Program</td>
<td>Green jobs training prepares the workforce for new clean technologies so they can transition away from older technologies which will be phased out in the future, or stagnate.</td>
<td>Developing</td>
</tr>
<tr>
<td>Designate a Green Business District/Enterprise Zone</td>
<td>Many cities have created enterprise zones regulatory incentive packages to focus development potential on emerging low carbon industries with high paying clean jobs.</td>
<td>Developing</td>
</tr>
<tr>
<td>Support an expanded network of farmer’s markets throughout the City</td>
<td>Farmers markets provide a unique and important opportunity to create a robust regional food economy and keep that money in the region</td>
<td>Achieved</td>
</tr>
<tr>
<td>Repurpose appropriate vacant lots for urban agriculture</td>
<td>Urban agriculture is a productive use of vacant land.</td>
<td>In-progress</td>
</tr>
<tr>
<td>Conduct an assessment of distances to grocery stores to eliminate food</td>
<td>Food deserts are areas that lack access to affordable fruits, vegetables, whole grains, low-fat milk, and other foods that make up the full range of a healthy diet.</td>
<td>Achieved</td>
</tr>
<tr>
<td>Restore the trolley system</td>
<td>Streetcar systems have been shown to have overwhelming economic development benefits and create sustainable development patterns</td>
<td>Achieved</td>
</tr>
<tr>
<td>Initiate a citywide beautification program</td>
<td>Economic development is tied to visual impressions – for new businesses, new citizens, and tourists alike.</td>
<td>In-progress</td>
</tr>
<tr>
<td>Require lifecycle cost analysis for all capital improvement projects</td>
<td>This will allow the City to understand how much it will cost to build and operate something over its entire lifetime, enabling better decision making regarding spending additional dollars up-front for long-term savings.</td>
<td>Developing</td>
</tr>
<tr>
<td>INITIATIVE</td>
<td>SUMMARY</td>
<td>STATUS</td>
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</tr>
<tr>
<td>Adopt a green fleet</td>
<td>Adopt a policy that increases use of alternative/electric vehicles in City fleet</td>
<td>In-progress</td>
</tr>
<tr>
<td>Performance contract for City buildings</td>
<td>Hire a contractor to bear the upfront capital costs of efficiency improvements</td>
<td>Achieved</td>
</tr>
<tr>
<td>Energy efficiency procurement</td>
<td>Ensure purchases are made with energy efficiency in mind</td>
<td>Achieved</td>
</tr>
<tr>
<td>O&amp;M efficiency standards in all City buildings</td>
<td>Create policy that promotes standards and guidelines for increased efficiency and reduced energy consumption in City buildings</td>
<td>In-progress</td>
</tr>
<tr>
<td>Energy efficiency tax breaks</td>
<td>Tax breaks for building owners based on implementation of energy saving measures</td>
<td>Developing</td>
</tr>
<tr>
<td>Residential weatherization program</td>
<td>Promote community weatherization of buildings through a new program</td>
<td>Achieved</td>
</tr>
<tr>
<td>Business fund for energy efficiency improvements</td>
<td>Set up a revolving loan fund to finance the cost of business-related energy efficiency upgrades</td>
<td>Developing</td>
</tr>
<tr>
<td>Low-interest loans for renewable projects</td>
<td>Provide easy financing for renewable energy installations that meet certain standards</td>
<td>Developing</td>
</tr>
<tr>
<td>Lower installation permit fees for renewable</td>
<td>Lower permit fees for renewable energy projects and installations</td>
<td>Developing</td>
</tr>
<tr>
<td>Promote alternative fuel vehicle use and charging/fueling stations</td>
<td>Encourage alternate fuel vehicle use and incorporate renewable energy at charging/fueling stations</td>
<td>In-progress</td>
</tr>
<tr>
<td>INITIATIVE</td>
<td>SUMMARY</td>
<td>STATUS</td>
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</tr>
<tr>
<td>Stormwater BMPs</td>
<td>Use stormwater BMPs in new construction, project work, and maintenance of outdoor environment</td>
<td>Achieved</td>
</tr>
<tr>
<td>Organic pesticide and fertilizer policy</td>
<td>Adopt a policy to reduce amount of non-organic chemicals entering watershed through stormwater runoff</td>
<td>Developing</td>
</tr>
<tr>
<td>Reduce impermeable surface area</td>
<td>Use land use regulations to reduce % of impermeable surface area</td>
<td>Developing</td>
</tr>
<tr>
<td>Low-flow fixtures</td>
<td>Install water-efficient fixtures in all City buildings</td>
<td>Developing</td>
</tr>
<tr>
<td>Rebate program</td>
<td>Create a rebate program for residents to purchase water-efficient fixtures and appliances</td>
<td>In-progress</td>
</tr>
<tr>
<td>Rainwater collection systems</td>
<td>Promote rainwater collection systems for use in homes and businesses</td>
<td>In-progress</td>
</tr>
<tr>
<td>Expand recycling service</td>
<td>Expand recycling service to commercial and multi-family buildings</td>
<td>Developing</td>
</tr>
<tr>
<td>Material reduction procurement policy</td>
<td>Adopt a procurement policy that emphasizes materials reduction</td>
<td>Achieved</td>
</tr>
<tr>
<td>Pay AsYou Throw</td>
<td>Adopt a Pay AsYou Throw program to incentivize increased recycling</td>
<td>In-progress</td>
</tr>
<tr>
<td>Green IAQ/O&amp;M Policy</td>
<td>Adopt a green Indoor Air Quality and/or Operations &amp; Maintenance policy</td>
<td>In-progress</td>
</tr>
<tr>
<td>Traffic Management Plan</td>
<td>Reduce congestion by conducting a traffic management plan</td>
<td>In-progress</td>
</tr>
<tr>
<td>Green and Healthy Homes Program</td>
<td>Participate in the Green and Healthy Homes Program</td>
<td>In-progress</td>
</tr>
<tr>
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<td>SUMMARY</td>
<td>STATUS</td>
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<tr>
<td>Zoning for higher density and mixed use</td>
<td>Implement zoning changes that promote higher density and mixed-use</td>
<td>In-progress</td>
</tr>
<tr>
<td>Energy efficient housing</td>
<td>Adopt a policy that new housing be built to green and/or energy efficiency standards</td>
<td>Developing</td>
</tr>
<tr>
<td>Affordable housing</td>
<td>Require a percentage of new housing developments to be affordable</td>
<td>Achieved</td>
</tr>
<tr>
<td>Riverfront Plan</td>
<td>Create a riverfront plan for open space and recreation</td>
<td>Achieved</td>
</tr>
<tr>
<td>Bike and pedestrian paths</td>
<td>Improve lighting, safety, and comfort of bike/ped pathways between public spaces</td>
<td>In-progress</td>
</tr>
<tr>
<td>Parks maintenance program</td>
<td>Invest in an expanded parks maintenance program</td>
<td>In-progress</td>
</tr>
<tr>
<td>Tree replacement</td>
<td>Implement a one-to-one tree replacement policy</td>
<td>Achieved</td>
</tr>
<tr>
<td>Resident tree planting</td>
<td>Adopt a policy that permits residents to plant trees in empty tree pits on adjacent property</td>
<td>Achieved</td>
</tr>
<tr>
<td>Tree species list</td>
<td>Develop and disseminate a list of appropriate tree species for planting within the city</td>
<td>Achieved</td>
</tr>
<tr>
<td>Vacant property development</td>
<td>Adopt legislation that allows transfer of ownership of abandoned/vacant property</td>
<td>Achieved</td>
</tr>
<tr>
<td>Brownfield Redevelopment</td>
<td>Redevelop brownfield sites</td>
<td>In-progress</td>
</tr>
<tr>
<td>Community Gardens</td>
<td>Adopt policy/zoning that promotes use of vacant properties for community gardens and urban agriculture</td>
<td>Achieved</td>
</tr>
<tr>
<td>INITIATIVE</td>
<td>SUMMARY</td>
<td>STATUS</td>
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</tr>
<tr>
<td>Bus Rapid Transit</td>
<td>Continue to identify opportunities to support Bus Rapid Transit in the City</td>
<td>In-progress</td>
</tr>
<tr>
<td>GRTC Enhancement</td>
<td>Invest in and support a GRTC Enhancement Program</td>
<td>In-progress</td>
</tr>
<tr>
<td>Two-way Streets</td>
<td>Convert one way streets to two way streets</td>
<td>In-progress</td>
</tr>
<tr>
<td>Bicycle and ride-share facilities</td>
<td>Require new and encourage existing parking lots and facilities to provide bicycle parking and ride-share (including private companies like ZipCar/alt fuel/hybrid preferred parking)</td>
<td>In-progress</td>
</tr>
<tr>
<td>Replace parking minimums</td>
<td>Replace parking minimums in city code with parking maximums</td>
<td>In-progress</td>
</tr>
<tr>
<td>Park and Ride</td>
<td>Establish visible park and ride lots for commuters</td>
<td>In-progress</td>
</tr>
<tr>
<td>Complete Streets</td>
<td>Adopt a formal complete streets policy</td>
<td>Achieved</td>
</tr>
<tr>
<td>Bike/Ped Infrastructure</td>
<td>Assess bike and pedestrian infrastructure</td>
<td>Achieved</td>
</tr>
<tr>
<td>Bike Share</td>
<td>Implement a bike share program in the City</td>
<td>In-progress</td>
</tr>
</tbody>
</table>