



Annual Progress Report 2017
City of Richmond Office of Sustainability

Indicator	Metric	Target	2015		2014		2013		2008	Percent Change 2008-2015	Source of Information
Population			220,289		217,853		214,114		202,002	9.05%	US Census Bureau American Communities Survey 1 year estimates
Households ¹⁰			91,396		88,421		88,110		79,967	14.29%	US Census Bureau American Communities Survey 1 year estimates
Economic Development											
Percent of green jobs ¹	Jobs in Bureau of Labor Statistics' Standard Occupational Codes that are "Green Jobs"	Upward Trend	16.34%		16.03%		15.91%		13.96%	16.98%	Bureau Labor Statistics, National Center for O*NET Development
Access to Healthy Food	Residents with access to a Grocery Store within 1 mile, or other healthy food option ³ w/in 1/4 mi	Upward Trend	191,850	87.09%	188,421	86.49%	170,420	79.59%	n/a	n/a	Google, Business Listings, City GIS, American Communities Survey
Other Healthy Food Option ¹¹			94,923	43.09%	85,420	39.21%	52,769	24.65%	n/a	n/a	
Grocery Store but no Other Healthy Food Option			179,469	81.47%	176,940	81.22%	117,635	54.94%	n/a	n/a	
both			81,375	36.94%	45,793	21.02%	43,499	20.32%	n/a	n/a	
neither		Downward Trend	28,439	12.91%	29,432	13.51%	43,694	20.41%	n/a	n/a	
Energy											
Renewable Energy, watts	Cumulative watts of net metered solar and wind energy installations	Upward Trend	1,761,864		1,418,565		1,271,070		4,000	44047%	Division of Mines, Minerals and Energy
Energy Use, mWh	Electricity consumed by community per sector	Downward Trend	3,343,245		3,302,951		3,253,503		3,396,341	-1.56%	Dominion Virginia Power
residential usage, per customer kWh			11,334		11,345		11,074		11,031	2.75%	Dominion Virginia Power
commercial usage per customer kWh			109,948		109,952		109,347		116,872	-5.93%	Dominion Virginia Power
Industrial usage per customer kWh			6,698,291		6,681,482		6,784,247		8,479,016	-21.00%	Dominion Virginia Power
governmental usage per customer kWh			242,617		239,335		239,980		234,335	-1.34%	Dominion Virginia Power
Environment											
Unhealthy Air Quality Days	Orange Air Quality Days = Air Quality Index (AQI)>120	Downward Trend	3		2		1		14	-82.35%	Virginia Department of Environmental Quality
Unhealthy Air Quality Days	Red Air Quality Days = Air Quality Index (AQI)>150	Downward Trend	0		0		0		3		Virginia Department of Environmental Quality
Recycling rate	Recycling as a percentage of all solid waste	Upward Trend	4.3%		3.5%		4.7%		3.4%	26.60%	Waste Management, Central Virginia Waste Mangement Authority
Recycling	Tons of recycling collected by CVWMA within the City of Richmond	Upward Trend	8,571		6,803		7,972		6,904	24.14%	Central Virginia Waste Management Authority
	average pounds / household ¹⁰		188		154		181		173	8.61%	US Census Bureau American Communities Survey 1 year estimates
Solid Waste - Tons	Tons of waste sent to Waste Transfer Center from Richmond residents & businesses	Downward Trend	192,565		189,420		161,796		198,219	-2.85%	Waste Management
	pounds/household ¹⁰		4,214		4,285		3,673		4,955	-15.00%	US Census Bureau American Communities Survey 1 year estimates
Acres treated by permitted BMPs ²		Upward Trend	987		900		829		434	127.42%	DPU - Stormwater Management
Open Space & Land Use											
Access to Open Space	residents living within 1mi of city owned park/open space in Richmond GIS layer (playground, mini park, community center, open space, neighborhood park, regional park, cemetery, park facility, school playground, sports complex, linear park, or standalone pool)	Upward Trend	177,068 WITH, 43,221 W/O	80.38%	175,786 WITH, 42,067 W/O	80.69%	172,043 WITH, 42,056 W/O	80.36%	n/a	n/a	city owned park/open space in Richmond GIS layer (playground, mini park, community center, open space, neighborhood park, regional park, cemetery, park facility, school playground, sports complex, linear park, or standalone pool)
Housing Cost Burden	Households paying more than 30% of income for housing	Downward Trend	45.5%		42.9%		45.2%		45.1%	0.90%	US Census Bureau American Communities Survey 1 year estimates
Urban Tree Canopy	Number of Trees planted by City of Richmond Dept of Urban Forestry	Upward Trend	2052		2245		2250		441	365.31%	City of Richmond Urban Forestry Dept
Transportation											
Alternative Transportation Mode Share	% of trips by mode share citywide	Upward Trend	30.00%		29.40%		31.43%		31.12%	-3.59%	US Census Bureau American Communities Survey 1 year estimates
all workers			107,648		105,900		98,677		91,908	17.13%	US Census Bureau American Communities Survey 1 year estimates
carpooled			12,380		12,920		11,102		10,371	1.91%	US Census Bureau American Communities Survey 1 year estimates
public trans			5,705		6,142		5,289		8,454	-32.51%	US Census Bureau American Communities Survey 1 year estimates
walked			5,598		5,295		6,108		3,547	57.81%	US Census Bureau American Communities Survey 1 year estimates
bicycle ³			1,722		2,012		2,467		1,746	-1.37%	US Census Bureau American Communities Survey 1 year estimates
worked at home			4,844		3,707		3,868		3,869	25.20%	US Census Bureau American Communities Survey 1 year estimates
Daily Vehicle Miles Travelled		Downward Trend	5,053,573		4,880,053		4,733,627		5,044,852	0.17%	VDOT



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Climate Action			2015		2014		2013		2008		Percent Change 2008-2015	
GHG emissions - Community CO2E (Tonnes)⁴		Downward Trend	2,850,609	Sector %	2,893,375	Sector %	3,188,954	Sector %	3,377,616	Sector %	-15.43%	City of Richmond GHG Report
<i>Residential⁵</i>			660,112	23.16%	663,793	22.94%	742,712	23.29%	748,875	22.17%	-11.85%	City of Richmond GHG Report
<i>Commercial⁵</i>			1,130,493	39.66%	1,131,743	39.11%	1,216,813	38.16%	1,246,131	36.89%	-9.28%	City of Richmond GHG Report
<i>Industrial⁷</i>			321,504	11.28%	383,941	13.27%	387,912	12.16%	471,055	13.95%	-31.75%	City of Richmond GHG Report
<i>Transportation⁶</i>			675,775	23.71%	652,489	22.55%	805,031	25.24%	866,166	25.64%	-21.98%	City of Richmond GHG Report
<i>Waste⁷</i>			60,470	2.12%	59,482	2.06%	35,123	1.10%	43,030	1.27%	67.22%	City of Richmond GHG Report
<i>Wastewater⁵</i>			2,255	0.08%	1,928	0.07%	1,363	0.04%	2,359	0.07%	6.04%	City of Richmond GHG Report
GHG emissions - Gov't CO2E (Tonnes)⁴		Downward Trend	140,809	Sector %	139,331	Sector %	145,849	Sector %	159,472	Sector %	-11.15%	City of Richmond GHG Report
<i>Buildings/Facilities⁵</i>			36,396	25.85%	36,594	26.26%	39,225	26.89%	41,462	26.00%	-12.22%	City of Richmond GHG Report
<i>Street & Traffic Lights⁵</i>			13,617	9.67%	13,476	9.67%	14,075	9.65%	18,723	11.74%	-27.27%	City of Richmond GHG Report
<i>Water⁵</i>			21,792	15.48%	19,930	14.30%	24,673	16.92%	26,071	16.35%	-16.41%	City of Richmond GHG Report
<i>Wastewater⁵</i>			19,974	14.19%	19,602	14.07%	23,705	16.25%	16,903	10.60%	18.17%	City of Richmond GHG Report
<i>Solid Waste -Scope 3⁷</i>			24,060	17.09%	23,953	17.19%	15,565	10.67%	19,599	12.29%	22.76%	City of Richmond GHG Report
<i>Fleet⁸</i>			11,957	8.49%	13,725	9.85%	17,163	11.77%	22,490	14.10%	-46.27%	City of Richmond GHG Report
<i>Employee Commute⁶</i>			12,510	8.88%	11,470	8.23%	11,097	7.61%	13,745	8.62%	-7.87%	City of Richmond GHG Report
<i>Refrigerants/Fire Suppressants⁹</i>			502	0.36%	581	0.42%	346	0.24%	479	0.30%	4.91%	City of Richmond GHG Report



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Sustainability Progress Report Methodology Notes

- ¹ The previously reported figures for green jobs for 2007 and 2013 were calculated from data obtained from a consultant. Revised figures for 2008-15 for this category are calculated from data published by the Bureau of Labor Statistics data and categorization of the "Green Economy" by the National Center for O*NET Development.
- ² The previously reported figures for 2008 and 2013 BMP acreages were revised to the current figures by the City of Richmond's Department of Public Utilities in 2016.
- ³ The previously reported figures for number of persons commuting by bicycles in 2008 and 2013 included those commuting by taxicab, motorcycle, and other methods. The currently reported figures for this category only include number of persons commuting by bicycle.
- ⁴ The 2008 and 2013 greenhouse gas (GHG) inventories use the International Panel on Climate Change (IPCC) 2nd Assessment protocol for calculating the global warming potential of gases. The 2014 and 2015 inventories use IPCC's updated 4th Assessment protocol.
- ⁵ Decrease in GHG emissions between 2008-15 partially due to different grid electricity factor sets used to calculate the 2008-13 and 2014-15 CO₂e emissions.
- ⁶ Decrease in GHG emissions between 2008-15 due to different fuel mileage factor sets used to calculate the 2008-13 and 2014-15 CO₂e emissions.
- ⁷ Increase in GHG emissions between 2008-15 mostly due to different solid waste factor sets used to calculate the 2008-13 and 2014-15 CO₂e emissions.
- ⁸ Decrease in GHG emissions between 2008-15 partially due to different fuel mileage factor sets used to calculate the 2008-13 and 2014-15 CO₂e emissions.
- ⁹ Increase in GHG emissions between 2008-15 due to reporting of refrigerants HFC-22, HFC 407C, and HFC-410A in 2014-15 which were not reported in 2008 or 2013. In addition, the 2008 and 2013 inventories categorized vehicle refrigerant as HFC-R143a. The 2014 and 2015 inventories classify vehicle refrigerant as HFC-134a which results in lower levels of emissions for this vehicle refrigerant.
- ¹⁰ The previously reported number of households for 2013 was revised to the current figure based on the American Community Survey 1-year estimate for 2013.
- ¹¹ Other healthy food option defined as Farmer's Market, Community Garden, Neighborhood Grocery, or Healthy Corner Store. Neighborhood Grocery is a store that sells local/healthy food options but is not a full service grocery store. Healthy Corner Store is a participant in Tricycle Gardens' initiative.